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of
THE SEAS AROUND INDIA



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THE FISHERY POTENTIAL OF ANDAMAN AND NICOBAR ISLANDS

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ABSTRACT

The shallow coastal belt with its numerous creeks and bays and the deep sea around Andaman and Nicobar Islands afford opportunities for commercial exploitation of a variety of economically important fishes. Fishing by indigenous craft and gear is confined at present mainly to the narrow coastal belt of the eastern coast of Andamans and neighbouring islands. The oceanic waters around are rich in tunas and bill fishes which are not exploited at present. The fishery potential of the sea around Andaman and Nicobar Islands is estimated from available information and scope for development is discussed.

THE shallow coastal belt with its numerous creeks and bays and the deep sea around Andaman and Nicobar Islands provide ample opportunities for commercial exploitation of a variety of important food fishes. However, on account of the isolation of the islands from the mainland of India and backwardness due to lack of adequate facilities, the fisheries resources remain unexploited even in inshore areas. Fisheries occupy only a comparatively low place in the economic complex of these islands as the early settlers were mostly engaged in agriculture and the exploitation of the fisheries resources remained a matter of little importance. Only a negligible area of the vast sea front is exploited at present by indigenous non-powered craft and the absence of sufficient number of professional and trained fishermen and mechanised boats is a serious handicap in exploiting the resources. The man-power required for fishing is contributed mainly by the fishermen migrants from Andhra, Tamil Nadu and Kerala who have settled in a few places in the Andaman group of islands and by the tribals who fish by traditional methods only to meet their own requirements.

The present fish production which is achieved only by indigenous methods of fishing is of the order of 480 tonnes in 1968 which is negligible when compared to the available resources. Perches, sea-fish, mackerel, carangids, sardines and anchovies are the important constituents of the landings. Perches and carangids are abundant along the rocky coasts and the former alone accounts for about 27% of the total landings. Mackerel constitutes 9% of the total annual landings. Mackerel found on the east coast of the islands in large shoals in June, July and August migrate to the west coast with the onset of North-East monsoon and hence they can be fished almost the year round. Seerfish contributing about 12% of the total landings is of considerable importance even though its fishery is seasonal and seems to be largely influenced by the movement of pelagic fishes and rainfall. Sardines and anchovies contributed about 21% of the total fish catch.

The gastropod shells, *Turbo* and *Trochus* are of appreciable commercial importance, but these shells have been removed indiscriminately by unlicensed persons and poachers from foreign countries in the past. The average annual revenue obtained by the Administration during the last two shell fishing seasons by issuing permits to collect shells is about Rs. 13,000. This industry is bound to prosper when conservation measures based on scientific studies are enforced.

The fishing conducted at present around the islands by country craft and gear does not give a complete picture of the fisheries potential around the islands. Fishing is done only in a negligible area close to the coast line by the existing methods of capture, viz., gill nets, boat seines, shore seines, cast nets and hook and line. Regular fishing by commercial fishermen exists only in Andaman group of islands, that too restricted to areas close to some fairly well-populated places. The estimated catch during 1968 is 480 tonnes. The annual landings at Port Blair, Rangat, Mayabunder and Diglipur which are the important fishing centres are 170, 85, 75 and 110 tonnes respectively. The total area exploited by the commercial fishermen for obtaining the yield may not exceed 1,200 sq. km. The landings per unit area exploited is the lowest when compared to all other maritime states of India. In fact, this is because of the low fishing intensity and lack of adequate idea about efficient fishing gears suitable in these waters and has no relation with the productivity of the area. Good catches obtained by the local fishermen from some of the hook and line fishing areas lying as far as 40 km away from the shore confirms the existence of potentially rich fishing grounds and the possibility of exploiting the fisheries resources on modern lines. It is evident from the above facts that the fishing effort could be increased considerably to obtain much larger yield from the coastal waters.

The information gained by the fishermen by fishing from country crafts with indigenous gears have enabled them to have a fair idea about the availability of fish in certain areas. It is widely known that long line fishing for tunas and bill fishes is quite possible but data about the resources is not available to undertake large-scale operations successfully. The results of fishing, conducted by Japan indicate clearly that the seas around Andaman and Nicobar Islands are rich in their highly potential resources of fish and hence our fishery landings could be stepped up considerably if properly exploited by employing modern techniques. Even though foreign fishing vessels have been fishing around the islands, it is believed that the level of fishing has not yet reached the maximum sustainable yield. It has been estimated that about 200,000 tonnes of tunas and bill fishes are being caught annually from the whole of Indian Ocean by fishing vessels of other countries. The full potential around the islands can be ascertained only by surveying and charting the fishing grounds around the islands in a systematic manner and only then it will be possible to take effective steps to exploit the resources. The potential yield cannot be estimated at this stage based on the poorly exploited resources and because of this it can safely be assumed that the present fish production can be increased several fold.

Fish wealth in an area of over 300,000 sq. km of the sea around the islands within 6° 20' N to 15° N latitude and 91° E to 95° E longitude can be exploited successfully by medium-sized mechanised fishing vessels which are capable of remaining for a few days in the open sea. The organic production in the Andaman Sea is of the order of 0.3-0.5 gC/m²/day, the higher values being found over the shallower areas in the vicinity of the islands. Accordingly an annual net production of 20 million tonnes of carbon can be expected from 300,000 sq. km of the sea around the islands. Based on a possible yield ratio of 0.2 to 0.3%, the potential yield from this extensive area should be about 50,000 tonnes. However, because of the diffuse distribution of oceanic fishery resources and the unapproachability of certain areas together with the problem of the reef-studded sea bottom over the major part of the shelf, the exploitable annual yield from the Andaman Sea upto a depth of 200 meters may be of lesser magnitude, viz., 12,000 tonnes.

Absence of indigenous fisherman population, non-existence of mechanised boats and efficient modern gears, limited local demand for fish, high cost of salt for curing and lack of facilities for processing, storage and transport are some of the important factors which stand in the way of modernising the industry. Production of 12,000 tonnes from Andaman and Nicobar Islands is quite possible by intensifying fishing by indigenous craft and gears and by adoption of mechanised methods of fishing.

Even though mechanised methods of capture has enabled some of the maritime states of India to increase the earnings in foreign exchange in recent years, the centrally administered territory

is lagging comparatively behind in the programmes. Drastic changes in the fisheries developmental programmes are absolutely essential in order to create a flourishing industry and for effecting improvement in the socio-economic condition of the local fishermen. With a view to increase the production to meet the growing internal demand and for export to the mainland and foreign countries where there are favourable markets, it has been proposed to undertake fisheries exploitation from Andaman and Nicobar Islands on a bigger scale by introducing mechanised boats. Fishing-cum-carrier vessels and by providing facilities for curing, freezing, storage and marketing under the Special Area Development Programme of these islands during the Fourth Five Year Plan period. There is every reason to hope that the fishing industry will prosper with the implementation of the schemes for fisheries development.