

FISHERIES OF THE WEST COAST OF INDIA

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Edited by
Dr. S. JONES
*Chief Research Officer, Central Marine Fisheries Research Station
Mandapam Camp*

MECHANISATION OF INDIAN FISHING BOATS

BY P. B. ZIENER

Naval Architect, Food and Agriculture Organization of the United Nations (Cochin)

MECHANISATION of fishing boats means the installation of engines for propulsion and mechanical devices for handling of fishing gear. This as a rule results in bigger catches. Experience in recent years in India confirms this, as for instance, in Bombay where the installation of engines in numerous Satpati and Versova boats in 1953 resulted in approximately four times increased catches, and in Madras where the introduction of mechanised craft enabled an increase in the catches with various types of fishing gear in different localities.

It is commonly agreed that mechanisation of the fisheries in almost all parts of India must be undertaken with Government aid. It is likely that the fishing boat development will be a continuous process guided by craft and gear research, trial fishing and harbour planning. Fluctuations in developments consequent to experience and resultant to research investigations must be closely watched by technical and administrative personnel capable of meeting new requirements and also possessing authority to suitably modify, if needed, projects already initiated. It is easy enough to design fishing boats when all factors of a fishery are known. However, there are still too many unknown factors in Indian fisheries to make it possible to predict the future development of boat types, boat sizes and fishing methods. This points to a step-by-step development in which boat designs are made with a view to immediate needs rather than to long-term planning.

There are in India today about 22,000 boats of indigenous types (of 2 tons and above) engaged in inshore and estuarine fishing. They are sailing boats. Many of them are well-built and can be mechanised if slightly modified. In addition there are 9,000 dugouts and other small craft and 20,000 catamarans which, in due time, undoubtedly must be replaced by more efficient craft. Of recent date there are also about 1,300 mechanised fishing boats of improved local types or new designs, profitably exploiting old and new fishing grounds. Since 1953 the boat development is furthered

along two parallel lines, viz., the gradual mechanisation and modification of the indigenous boats and the introduction of new mechanised boats suitable for new fishing methods. It should be understood that mechanisation of available boats is only a transitory event, necessary for utilizing thousands of good but not ideally suited boats as long as they last, but that the real improvement of the Indian fishing fleet is in the field of new designs.

Considering that mechanisation of boats requires the introduction of more advanced techniques in boatbuilding and marine engineering and training of technical personnel, the pace of development is impressive. On the Kathiawar coast more than 50 local boats have been equipped with inboard engines and about 70 small craft with outboard engines. On the Konkan coast more than 950 well-built and seaworthy indigenous craft of great utility are engine-powered, and the fleet is rapidly increasing. In South Kanara and Malabar coast the 135 mechanised boats introduced up to this date are, unlike those of Kathiawar and Konkan, of new designs. Some are designed and built by the Indo-Norwegian Project at Quilon or in Norway, and some designed in co-operation with FAO and built in the region. Dugout mechanisation is being tried in South Kanara with satisfactory result.

On the east coast mechanisation has advanced rapidly in the south with the introduction of the so-called "Pablo" type boats. More than 50 such boats have been built under Madras Government scheme and distributed to the fishermen. The Government scheme provides for building of more mechanised boats of similar and bigger types. In the extreme south as well as around the Godavari delta indigenous types of boats are being motorised, with best results so far in the last-mentioned area where 12 locally developed boats are engine powered. In the deltaic areas of Orissa and West Bengal much prominence has not been given to the mechanisation of the numerous indigenous boats. But Orissa has introduced a small, efficient fleet of mechanised fishing boats and fish carriers embodying to some extent the features of the local boat types. The peculiar pattern of estuarine and river fishing in these north-eastern areas require a different approach to the mechanisation problem. Exploratory fishing is required and progress must necessarily be slow. The total number of mechanised indigenous and new boats is perhaps not yet exceeding 15, and West Bengal has in addition a new, specially designed exploratory fishing vessel for the estuaries. Also in these areas boat designs have been worked out in co-operation with FAO and all mechanised boats, except one, have been built in the country.

A "cottage" boatbuilding industry is found in every district where fishing boats are in use. It has built the Indian fishing fleet. It is organised on a sound economical basis and displays great skill and experience in exploiting local resources. Maintained by primitive production methods, this industry is capable of building boats cheaper than the yards provided with modern machinery and skilled staff. This in itself is full justification for its existence. But the greatest value of the cottage boatbuilding is in its presence everywhere. For fishing boat maintenance its decentralised activity is invaluable. Any fishing boat can be repaired in its own port or near its fishing ground. If the cottage boatbuilding is mechanised to some extent and expanded to cover the field of simple marine engineering, it seems that the ideal condition for servicing a fishing fleet of small and middle-sized craft would be achieved.

However masterful in practical boatbuilding, the cottage industry lacks knowledge of modern naval architecture which is imperative for full development. Aware of this fact, the Central Government have organised the Craft Wing of the Central Fisheries Technological Station with the main purpose of investigations on new boat designs and materials, technique of building, and training & extension work. Already two Training Centres have been organised at this Station in collaboration with the FAO, for training of State Government Officials and representatives of private boatbuilding industry in the basical aspects of fishing boat Naval Architecture. Pilot fishing-boat building-yards have been established under Government supervision in several maritime States for construction of prototype boats and introduction of new boatbuilding techniques. It is only through training, research and extension that the ultimate development of the Indian fishing fleet on modern lines can be achieved.