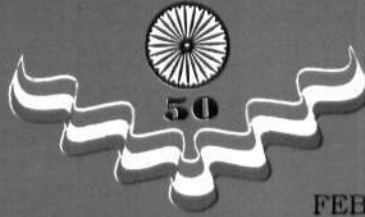




समुद्री मात्स्यकी सूचना सेवा

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तकनीकी एवं विस्तार अंकावली TECHNICAL AND EXTENSION SERIES

केन्द्रीय समुद्री मात्स्यकी अनुसंधान संस्थान कोचिन, भारत CENTRAL MARINE FISHERIES RESEARCH INSTITUTE COCHIN, INDIA

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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

1. FISHERIES HARBOURS IN MAHARASHTRA

Maharashtra is one of the major maritime states in India with a coastline of 720 km. There are five maritime districts viz. Thane, Greater Mumbai, Raigad, Ratnagiri and Sindhudurg from where the fishing vessels operate (Fig. 1). The state jointly with Gujarat contributed about 8.5 lakh tonnes of marine fish in 1994 which formed 36 % of the total marine fish production of India.

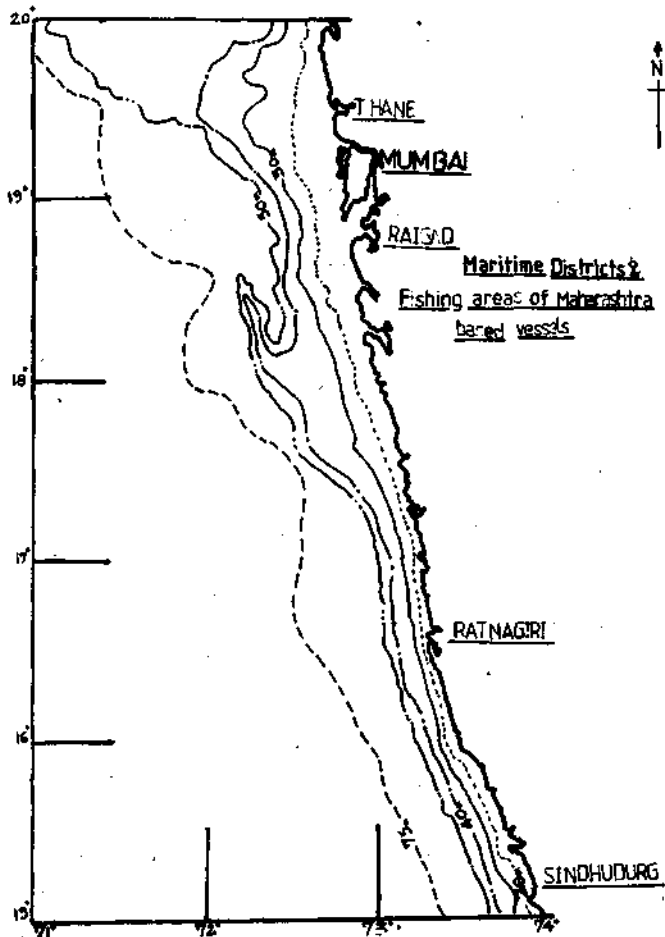


Fig. 1. Maritime districts and fishing areas of Maharashtra based vessels.

The major fish landings of the state comprise Bombay duck, croakers, ribbonfishes, cat fishes, carangids, mackerel, pomfrets, penaeid and non-penaeid prawns and cephalopods.

There are about 8,000 country crafts and 7,000 mechanised boats operating along the Maharashtra coast. The major gear being opera-

ted are trawl nets, purse seines, gill nets, dol nets and hooks and line.

When the fish is caught in such large quantities and many fishing vessels operate regularly, it is imperative that landing and berthing facilities be developed. This becomes more significant because in addition to the safety of the vessels, facilities should also be there for adequate storage, transportation and hygienic handling. All these facilities are supposed to be provided by the fisheries harbours.

There are three categories of the fisheries harbours, viz., major fisheries harbours, minor fisheries harbours and landing centres. By definition 'major fisheries harbours' are those which are falling within the jurisdiction and administrative control of commercial port trusts. The Government of India provides 100 % funds for construction of such harbours through the respective port trusts. The selection of sites, investigations, preparation of plans and estimates and execution of the work are entirely carried out by the port trusts.

In the case of 'minor fisheries harbours' the cost of construction is shared between the state governments and the Central Government as per the approved pattern of assistance from time to time.

The gearwise number of fishing units being operated from the major and minor ports of Maharashtra are shown in Table 1. The Fish landing

TABLE 1. Gearwise operational fishing units (numbers) at major & minor fisheries harbours of Maharashtra

Gear	Major harbours		Minor harbours
	Sassoon Docks	New Ferry Wharf	Mirkarwada
Trawlers	700-800	1,000-1,100	400
Purse seines	60	-*	-*
Dol netters	125-150	25-30	-
Gill netters	70	10-12	10-12
Hooks & line	25	25-30	-*

-* = Occasional landings only.

- = Particular gear not operational.

The figures given are the number of operational units during the peak fishing season. The number of total registered units are more.

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centres form the last category and these are set up by combined efforts of the state govt. and other agencies depending upon the size and nature of facilities and the initial cost of construction.

At present there are 184 fish landing centres in the five maritime districts of Maharashtra. However, there are only three harbours namely Sassoon Docks, New Ferry Wharf and Mirkarwada which have properly constructed permanent facilities for fish landings. The first two harbours are in the Greater Mumbai District under the direct control of the Mumbai Port Trust while the third one is in Ratnagiri District which has been constructed by the state fisheries department under the centrally sponsored scheme.

Although there are 184 landing centres it was not possible to construct the jetties, platforms, quays or regular harbours at all the landing centres and fish landing is done by the fishermen at the natural landing sites.

The state fisheries department has identified thirteen major landing centres (Table 2) where fisheries harbours need to be constructed. There

TABLE 2. Districtwise list of fish landing centres

Name of the landing centre	District
Agrao	Raigad
Sarjekot	Sindhudurg
Sakirmate	Ratnagiri
Agardanda	Raigad
Satpati	Thane
Rewas	Raigad
Deogad	Sindhudurg
Karanja	Raigad
Trombay	G. Mumbai
Rajapuri	Raigad
Ambao	Sindhudurg
Buraundi	Sindhudurg
Pedwe	Ratnagiri

is a plan to develop these harbours in a phased manner as huge capital is required for this. Initially identified places are Satpati in Thane District, Agrao in Raigad District, Sakhirmate in Ratnagiri District and Sarjekot and Deogad (Anandwadi) in Sindhudurg District.

Major fisheries harbours of Maharashtra

There are two major fisheries harbours in Maharashtra; the Sassoon Docks and the New Ferry Wharf. These are located in the city of Mumbai.

The fishermen operating from the Sassoon Docks and New Ferry Wharf do not allow outsiders to operate fishing vessels from their respective ports.

Sassoon Docks (Mumbai)

Sassoon Docks (Fig. 2) is the oldest Fisheries Harbour of Maharashtra and comes under the purview of the Mumbai Port Trust. The old harbour was overcrowded and congested and therefore with the assistance of the Govt. of India under centrally sponsored scheme extension and work of the harbour was undertaken and is almost complete now.



Fig. 2. Sassoon Docks (old) Fisheries Harbour. Mumbai.

Recently from September 1996 the fishing operations have started from the New jetty (Fig. 3) of the Sassoon Docks Fisheries Harbour which can handle many larger boats and purse seiners at a time.



Fig. 3. New jetty of the Sassoon Docks Fisheries Harbour Mumbai.

During the peak fishing season the operative gear from the Sassoon Docks are mainly trawls, purse seines, dol nets, gill nets and hooks & line (Table 1).

Earlier about 50 nos. of purse seiners and about 700 to 800 trawlers were being operated during the season. The purse seiners are of 15 m length while the trawlers are of 12-15 m length. The trawlers operating here are somewhat wider than those in the other regions.

During fishing season the trawlers undertake 4-5 days trips and each vessel land around 3 to 4 t of fish including 800 kg of head-on shrimps.

New Ferry Wharf (Mumbai)

The New Ferry Wharf (Fig. 4) was constructed to accommodate the additional trawlers from



Fig. 4. New Ferry Wharf Fisheries Harbour, Mumbai.

Gujarat and to provide facilities for fish landings. The harbour was commissioned in April 1980. The new jetty for fish landings is an extension of the old 'Bhau-cha-Dhakka' which is used as a passenger jetty of Mumbai harbour. A small bridge connects the main land with the jetty (Fig. 5) and facilities like diesel bunk, auction hall etc. are available for the vessels using the harbour.

Trawlers, mostly from the Gujarat state visit Mumbai (New Ferry Wharf) seasonally and about 1,000 to 1,100 trawlers are operated from this centre during fishing season i.e. from August-September to May. These vessels are 8-10 m in length and 2.5-3 m in width. They also conduct 4-5 days fishing at a time.



Fig. 5. Bridge connecting New Ferry Wharf jetty and main land, Mumbai.

Minor fisheries harbour of Maharashtra

There is only one minor fisheries harbour in Maharashtra i.e. Mirkarwada at Ratnagiri.

Mirkarwada (Ratnagiri)

This fisheries harbour has been constructed by the State Government under the centrally sponsored scheme at Ratnagiri. This is the only harbour taken up by the State Government with assistance from Govt. of India. The harbour at a cost of Rs. 344 lakhs was sanctioned by the Govt. of India in 1976 and the work commenced in 1977.

Although the entire construction work of the harbour was to be completed within a period of four years from the date of sanction, the construction work was delayed on account of various unforeseen difficulties. The important works like construction of break water walls, jetties, quays, sloping hard etc. were completed by 1987-'88, but ancillary works such as internal roads, water supply, levelling, drainage etc. are yet to be completed. Owing to delay in the works, the revised proposal with an estimated cost of over 1,800 lakhs has been submitted by the State Govt. to the Govt. of India.

Since the major works of this harbour were almost completed, the local fishermen have started making use of this harbour since 1988-'89. Presently, there are over 400 fishing vessels operating from this harbour.

The major problem faced in the smooth run-

ning of this harbour is excessive silting. Recently, the State Department has approached the Dredging Corporation of India for exploring the possibility of undertaking dredging work. The estimated cost of dredging is likely to be around Rs. 200 lakhs.

Important fish landing centres of Maharashtra

Most of the fish landing centres in Maharashtra have good support of the co-operative societies. Fishermen at these places are able to overcome the difficulties due to landings at natural sites because of their combined efforts and understanding.

The Maharashtra Govt. has already undertaken some efforts to prepare status reports of some of the major landing centres. The reports for the Dahanu, Satpati, Revas, Mora, Dighi, Jai-garh, Ratnagiri and Deogarh landing centres have already been prepared in collaboration with the Central Institute of Coastal Engineering and Fishery (CICEF), Bangalore.

Three different types of fish landing centres in Maharashtra are described below to get a general idea about the conglomeration of these centres.

Versova

The Fish landings at Versova are done at natural site along the creek (Fig. 6). This landing

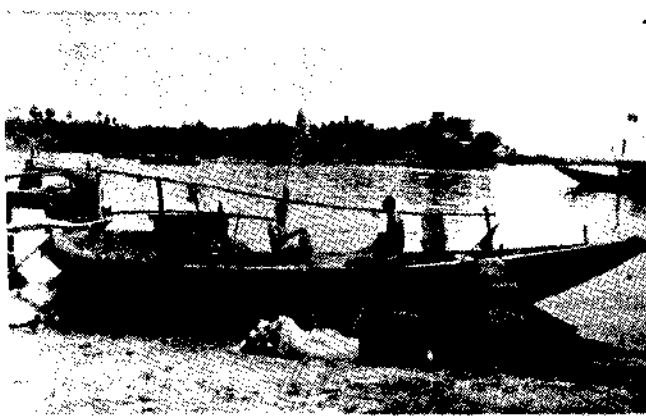


Fig. 6. Fish landings at natural site, Versova, Mumbai.

centre assumes additional importance because it falls within the city limits of the Greater Mumbai and is the biggest among the 23 fishing villages

of the District.

Most of the Versova fishermen keep their fishing confined to inshore waters upto 35 metres depth and around 30 km away from the shore. About 335 boats of OAL ranging from 5 to 15.5 m size operate from here. Of these, 175 are dol netters, 140 trawlers and 20 gill netters. This centre was exclusively a dol net centre till late seventies but the trend changed and dol net units were converted to small trawlers for daily fishing.

There is a high degree of co-operation among fishermen here. All activities related to fisheries at this landing centre are so excellently coordinated that it becomes an example to emulate.

Satpati

This is one of the major landing centres in Thane District. Fishermen of this landing centre have a multipurpose co-operative society established in 1944. The society has well established departments for diesel, fishing equipments, own ration shops, marketing, ice factory, transport and boat building yards.

Agardanda

Agardanda, in Raigad has been selected for construction of deep sea fishing harbour. This will be a centrally sponsored scheme and the engineering investigations for this project are being undertaken by the CWPRS, Pune.

Problems and prospects of major & minor fisheries harbours and landing centres of Maharashtra

Though there are many problems in the construction and maintenance of the fisheries harbours the major ones faced in the Maharashtra are :

Time and cost over-runs

The main problem in the developments of the fisheries harbours in Maharashtra had been the time and cost over-runs. Usually it took more than the anticipated time in the development of the facilities than planned and this had led to the cost over-runs and slow progress.

Un-even spread of the fisheries harbours

Due to localised export purchases and presence of limited wholesale markets in and around

Mumbai most of the fishing vessels concentrate on few harbours and thus create pressure on some harbours which lead to under-utilization of the other harbours.

Poor maintenance of the fisheries harbours

Maintenance of the fisheries harbours after their completion is as important as their construction. At present very few harbours are maintained properly as per the needs of the users. The users of the Sassoon Docks for example had a long list of their problems till recently before the new jetty was completed. They had problems related to space, water, storage and other ancillary facilities. Many fish landing centres in Maharashtra are facing the problem of excessive siltation at natural sites.

While there are problems it is also heartening to note that realization has come now for the development of fisheries harbours according to the needs of the fishing industry.

Efforts are being concentrated on providing all-weather protection for fishing vessels, adequate draft and berthing facilities for operation of bigger vessels and a comprehensive development of offshore facilities with road and rail links for quick disposal of fish. The Maharashtra Govt. has undertaken a crash programme for the Development of Fisheries Harbours in Maharashtra (Annual Development Plan, 1995-'96).

Under the crash programme the State Govt. had decided to incur an expenditure of Rs.164.9 lakhs and the Central Govt. would contribute Rs. 38.00 lakhs (total 202.9) and under this programmes the following centres are being developed :

Landing centre	:	District
Agardanda	:	Raigad
Agrao	:	Raigad
Mirkarwada	:	Ratnagiri
Sakimate	:	Ratnagiri
Harne	:	Ratnagiri
Sarjekot	:	Sindhudurg
Anandwadi	:	Sindhudurg

The problems at Sassoon Docks are also largely solved as new harbour is planned to be equipped with facilities like an ice plant, a peeling shed, fish auction hall, workshops for repairing boats, larger water tank (Fig. 7), a laboratory,



Fig. 7. Larger water tank at the new jetty of the Sassoon Docks Fisheries Harbour, Mumbai.

dispensary, fish drying yards and sufficient space for parking lorries and handcarts (Fig. 8).



Fig. 8. Space for parking lorries and handcarts at the new jetty of the Sassoon Docks Fisheries Harbour.

Marketing

As far as marketing from the fisheries harbours of Maharashtra is concerned it consists of both domestic marketing and exports. There are six exporters at Sassoon Docks and three of them have their own processing plants which export about 1,500 t of fish every month.

In respect of domestic marketing the fishermen's co-operatives and *Nakhavas* act as auctioneers and sell the catches of their clients. In addition to the three major harbours the same system is followed at centres such as Versova, Satpati, Vasai, Arnala, Naigaon, Uttang and other centres.

Co-operatives buy fish from their members and sell to exporters. Non exportable fish are taken to the Crawford market for auction. The exporters also buy about 20 % of their requirements from Crawford market but percentage is dependent on other conditions.

Eventhough the fisheries harbours in Maharashtra may not have excellent facilities to cater to the needs of the fishing industry; due to the joint efforts of the Government, fishermen and the fishermen co-operative societies these har-

bours are able to meet the day to day requirements. It is expected that with the recent efforts undertaken by various agencies the fishermen of the state will have proper landing and disposal facilities in the near future.

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