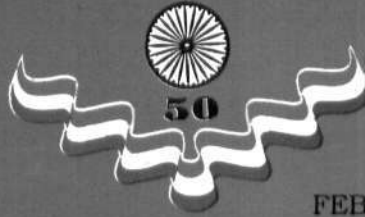




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8. FISHERIES HARBOURS ALONG THE COASTS OF NORTH ANDHRA PRADESH, ORISSA AND WEST BENGAL

The present account gives information about the three major and five minor fisheries harbours along the coasts of north Andhra Pradesh, Orissa and West Bengal (Fig. 1).

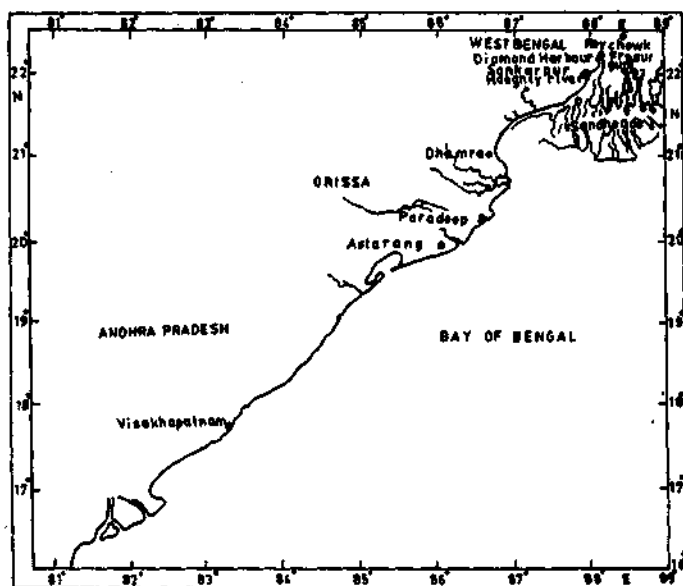


Fig. 1. Location of major and minor fisheries harbours along the northeast coast of India.

Visakhapatnam Fisheries Harbour

Visakhapatnam (17° 40'N, 83° 18'E) Fisheries Harbour is one of the major fisheries harbours in the country. The execution of the construction work of the Visakhapatnam Fisheries Harbour was initiated in January 1976 by the Visakhapatnam Port Trust. The total cost of the project was Rs. 4.26 crores which covered an area of 2.4 hectares. The construction work of the harbour was executed in four stages. The first phase of construction was started in January 1976, the second phase during 1980-'81, the third phase in 1988-'89 and the fourth phase during 1989-'90 and completed in 1991. The length of the landing quay was 503 m in the first phase and 1,720 m in the second phase with a dredged depth of 2.0-6.0 m for landing and berthing of different types of mechanised vessels

throughout the year. The basin is protected by the break waters and the normal wave height is 0.30 m in almost all the months of the year.

The capacities and facilities of the Visakhapatnam Fisheries Harbour complex are given in Table 1. The harbour has a dry-dock with 300 t slipway to undertake vessel repair work, has spacious workshops (30 x 70 m) and three larger fuel bunks to supply fuel directly from the storage tanks to the mechanised vessels through pipe line system.

The other important facilities available in the fisheries harbour are power, water supply and maintenance facility, auction hall, fish drying yard, processing plants, ice plants, roads for public transports, two signal stations of which one for the safe entry of boats into the harbour and the other for weather warnings, administrative offices, training institute, trade union offices, shopping complex, canteens, shelters and sitting arrangements.

In the Visakhapatnam Fisheries Harbour four categories of mechanised vessels, such as small mechanised boats (9.6-11.2 m), sonaboats (12.7-14.2 m), mini trawlers (14.0 - 16.4 m) and large trawlers (23.0-27.0 m) are in active operation for the commercial exploitation of prawn and fish resources. The operational details of these vessels are presented in Table 2. The distance and depth of operation, total fishing hours, total number of hauls, diesel consumption and ice loading capacity vary depending on the daily or long voyage fishing operations carried out by these vessels.

The average annual effort expended and the catch of fish and prawns by the four categories of fishing vessels are given in Table 3. The annual average catch of fish and prawn has been estimated at 3,330 t, 4,030 t, 4,872 t and 20,328 t by the small mechanised boats, sona boats, mini and large trawlers respectively. The cph of fish

was estimated as 16 kg in small mechanised boats, 7 kg in sona boats, 21 kg in mini boats and 62 kg in large trawlers whereas the cph of prawn was 3 kg each in small mechanised and sona boats, 9 kg in mini trawlers and 26 kg in big trawlers.

The production value, operational cost and income for a single unit of each category of mechanised vessel are computed and given in Table 4. From the values it could be seen that the net income of a single unit of each category of the vessel is reasonable and the percentage income per unit works out to 45.93 % in small mechanised boats, 60.52 % in sona boats, 61.85 % in mini trawlers and 50.42 % in big trawlers.

Paradeep Fisheries Harbour

Paradeep 20° 18 'N, 86° 38'E) serves mainly as a commercial port than a major fisheries harbour. The harbour was constructed at a cost of Rs. 3.81 crores but not yet commissioned for service. There are four finger jetties for berthing, each having a length of 302, 254, 200 m and 176 m respectively with an equal width of 50 m in between each jetty. The length of the landing and repairing quay is 466 m and the dredged level depth vary between 3.0 and 12.5 m.

The Fisheries Harbour has the berthing facility for 500 mechanised trawlers of the size range 10-15 m OAL. The harbour has a deep basin where there is provision to accommodate 50 deep sea trawlers of 23 m. The other facilities such as ice plants, processing plants and marketing infrastructure are not available in and around the harbour. The average annual production of fish and prawn at Paradeep by the mechanised vessels was estimated as 12,782 t (Table 1).

Sankarpur Fisheries Harbour

Sankarpur Fisheries Harbour (21° 48'N, 87° 52'E) forms a major fish landing centre in Midnapur District of West Bengal. The first phase of the construction of the harbour complex started in 1983 and was completed in 1987. The second phase of construction initiated in 1994 was completed in February 1996. The total cost of the construction was Rs. 5 crores which covered a ground area of 20 hectares. On completion of the second phase, the harbour has berthing facility

for 400 mechanised vessels.

The harbour is enclosed by break waters on either side with a dredged depth of 6.0 m during low tide. There are 140 small mechanised trawlers, 2 deep sea trawlers and 150 gill netters in Sankarpur Fisheries Harbour. The other facilities available in the harbour are an auction-cum packing hall (90x14.5 m), slipway, repairing yard, ice plant, fuel pump, public transport, office building, electricity, water supply and canteen. At Sankarpur Fisheries Harbour the average annual catch of fish and prawn was estimated as 2,300 t (Table 1).

Roychowk Fisheries Harbour

This is a minor fisheries harbour on the upper region of the Hooghly River in West Bengal (22° 10'N, 88° 10'E). The harbour was constructed at a cost of Rs.1.07 crores which includes the processing complex of an area of 5.1 acres. The length of the jetty is 97.2 m with a width of 12.22 m. There were three deep-sea fishing trawlers operating from here but the harbour is not in operation since 1990.

Diamond Fisheries Harbour

This harbour which is adjacent to Roychowk (22° 14'N, 88° 20'E) also functions as a minor fish landing centre on the upper region of the Hooghly river in West Bengal. There is no proposal yet to undertake any developmental scheme or construction work in this harbour either by the state or central government. The harbour has since been used by the fishermen at their own interest. There are 4 trawlers and 130 gillnetters operating from this fisheries harbour. The processing industries and ice plants are located nearer to the fisheries harbour. The annual average production of fish and prawn was estimated as 3,743 t (Table 1).

Dhamra Fisheries Harbour

This forms a minor fisheries harbour on the river Dhamra in Orissa coast, 20° 48'N, 86° 50'E). The harbour was constructed at a cost of Rs.1.05 crores. The length of the landing quay is 200 m with a berthing capacity for 30 trawlers and 20 gillnetters. The depth at landing quay is 2.0 m. There are ice plants and an auction hall in

the harbour complex. The annual average catch of fish and prawn was estimated as 5,827 t (Table 1).

Astarang Fisheries Harbour

This is a minor fisheries harbour in Orissa coast (10° 56'N, 86° 18'E). The Government of India has sanctioned Rs. 4.94 crores for the construction of the fisheries harbour. The construction work was stopped half-way and the project was abandoned. Later some of the structures constructed were damaged by floods and the harbour became defunct.

There is a private jetty at Nuagarh which is 10 km away from Astarang. Trawlers from Astarang and Paradeep use this jetty for fishing operations.

Fresurgunj Fisheries Harbour

This forms a minor fisheries harbour on the Hooghly river in West Bengal (21° 45'N, 88° 18'E). There are about 200 small mechanised trawlers being operated from this harbour. Other details on this harbour are not available.

Remarks

The contribution so far made by the fisheries sector towards creation of employment opportunities, supply of protein food, and earning of foreign exchange is significant and bears a promise for further exploitation of the enormous resources. It is well known that the fisheries harbours play an important role in the exploitation of the marine wealth of the country. In view of the importance of the fisheries harbours it has become necessary to develop additional facilities and to take care for the proper maintenance of the fisheries harbours. In this context it is stressed that urgent steps may be taken by the state and central governments to complete the pending works in some of the fisheries harbours and also to construct more fisheries harbours along the coastline wherever required.

The authors owe a debt of gratitude to State Fisheries and Port officials of Visakhapatnam, Orissa and West Bengal for providing information, on the fisheries harbours relating to their respective areas.

TABLE I. Major and minor fisheries harbours along the coast of north Andhra Pradesh, Orissa and West Bengal

Location of fisheries harbours	Status	Cost of construction (Rs. in crores)	Berthing capacity			Processing industries	Ice plant	Production(t)			Other facilities
			Small mechanised trawlers	Trawlers	Gill-nets			Fish	Prawn	Total	
Visakhapatnam	Major	4.26	450	71	-	26	4	23,537	9,023	32,560	Dry dock, auction hall, fish drying yard, public and private transport service available
Paradeep	Major	3.81	500	50	-	-	-	10,163	2,619	12,782	-
Sankarpur	Major	5.00	140	2	150	-	1	-	-	2,300	Auction and packing hall and private transport service available
Roychowk*	Minor	1.07	-	3	-	-	1	-	-	-	-
Diamond Harbour	Minor	1.07	-	4	130	6	9	3,720	23	3,743	-
Dhamra	Minor	1.05	30	-	20	-	5	5,762	65	5,827	Auction hall and private transport available
Astarang *	Minor	4.94	-	-	-	-	-	-	-	-	-
Fresurgunj **	Minor	-	200	-	-	-	-	-	-	-	-

* Not in operation.

** Particulars not available.

TABLE 2. Details of bottom trawling from Visakhapatnam Fisheries Harbour

Particulars	Trawlers			
	Small mechanised boats	Sona boats	Mini trawlers	Big trawlers
Length of vessel (m)	9.6 - 11.2	12.7 - 14.2	14.0 - 16.4	23.0 - 27.0
Number of boats	280	120	53	153
Horse power	68	98-110	150-240	380-580
Duration of voyage	12 hrs - 5 days	12 hrs-15 days	15-20 days	30-45 days
Area of operation	Between Pudimadaka and Calingapatnam	Upto Sandheads	Upto Sandheads	Upto Sandheads
Distance from shore (km)	5-15 15-150	5-15 300-700	15-25 300-700	15-25 500-700
Depth (m)	10-60	10-70	30-100	30-110
Gear	Shrimp trawl-net	Shrimp trawl-net	Shrimp trawl-net	Shrimp trawl-net
Number of hauls/unit	3-18	3-60	60-90	120-150
Duration of each haul (hrs)	2-3	2-3	3-4	3-4
Fishing hours/unit	6-50	6-150	150-250	250-400
Man power/unit	5-7	6-9	8-10	12-15
Diesel consumption/day	100	120	800	1,200
Ice (t/unit)	0.5-2	8-10	20-25	With deep freezer
Fishhold capacity (t)	2	10-12	10-15	20-30

TABLE 3. Average annual effort and catch of fishing vessels operated from Visakhapatnam Fisheries Harbour

Particulars	Trawlers			
	Small mechanised boats	Sona boats	Mini trawlers	Big trawlers
Standard units	24,408	23,430-	-	
Long voyage units	-	-	406	994
Fishing hours	1,76,452	4,21,732	1,65,410	2,30,590
Total fish catch (t)	2,831	3,066	3,410	14,230
Fish catch/unit (kg)	116	131	8,399	14,316
Fish catch/hour (kg)	16	7	21	62
Total prawn catch (t)	499	964	1,462	6,098
Prawn catch/unit (kg)	20	41	3,600	6,135
Prawn catch/hour (kg)	3	3	9	26
Total fish and prawn catch (t)	3,330	4,030	4,872	20,328

TABLE 4. Estimated values for the production figures given in Table 3, operational cost and income for the fishing vessels operated from Visakhapatnam Fisheries Harbour

Particulars	Trawlers			
	Small mechanised	Sona boats	Mini trawlers	Big trawlers
Production value/unit (Rs.)				
Price of fish/kg	15	30	20	20
Price of prawn/kg	64	112	160	160
Fish sale/unit	1,740	3,930	1,68,000	2,86,320
Prawn sale/unit	1,280	4,592	5,76,000	9,81,600
Total sale/unit	3,020	8,522	7,44,000	12,67,920

Particulars	Trawlers			
	Small mechanised	Sona boats	Mini trawlers	Big trawlers
Operational cost/unit (Rs.)				
Diesel and oil	1,000*	1,500*	1,20,000**	3,75,000**
Ice	150	500	15,000	-
Labour	483	1,364	1,48,800	2,53,584
Total	1,633	3,364	2,83,800	6,28,584
Income/unit	1,387	5,158	4,60,200	6,39,336

* Single day.

** Multi-day.