

CICEF - India's Nodal Agency for Development of Fishery Harbours

When was CICEF set up and why? What is the mandate and vision of CICEF?

On January 10, 1968, the Pre-investment Survey of Fishing Harbours (PISFH, the precursor to Central Institute of Coastal Engineering for Fishery or in short CICEF) was set up in Bangalore by the Ministry of Agriculture in collaboration with the FAO for a period of five years. It conducted studies and site surveys for development of minor fishing harbours, advised on site construction, and helped develop the fisheries potential of major commercial ports.

After FAO assistance ceased, the organization received technical assistance (equipment and consultancy services) from January 1974 for two-and-a-half years from the Swedish International Development Authority (SIDA).

In August 1983, PISFH was renamed the Central Institute of Coastal Engineering for Fishery in view of changing trends in maritime fisheries. The Institute was asked to help develop brackishwater fish farms in cooperation with state governments under a UNDP project, in addition to existing activities.

The Institute's work in coastal aquaculture received a further thrust through UNDP/FAO assistance for five years from 1986 to 1991 – mainly in the form of equipment and consultants for development of shrimp farms and hatcheries. The Institute also implemented the World Bank-assisted Shrimp and Fish Culture Project in West Bengal, Orissa and Andhra Pradesh for eight years (1992 to 2000).

Presently, under the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, CICEF carries out the entire gamut of activities relating to fishery harbours – reconnaissance surveys, investigations, drawings and construction, advice on engineering and economics, monitoring construction.

Vision

The socio-economic context of CICEF's operations is challenging. Nearly 3.57 million fisherfolk operate from India's 3 272 coastal fishing villages and 1 343 fish landing centres. The fishing fleet is varied – more than one lakh traditional craft, more than 76 000

motorised traditional craft, nearly 60 000 mechanised fishing vessels.

The fishing industry is undergoing a notable transformation – in the size of mechanised fishing vessels – to make them suitable for offshore/ deep-sea fishing. Statistics show that mechanised fishing vessels have been increasing annually at the rate of 10 percent.

The landing and berthing facilities created so far in the country can accommodate only 25 percent of the active fishing fleet. Result: overcrowding and congestion. Some of the harbours lack maintenance, many of the facilities are in utter disrepair because of overcrowding. With fish importing countries

Mr K Omprakash, 59, has been Director of CICEF from August 1995. A graduate in civil engineering (University of Madras), he has a post-graduate diploma in hydraulic engineering (Delft University of Technology, Netherlands). His experience in marine fisheries spans 35 years. He has specialized in fishery harbours and has served as fishery harbour consultant to Iran under an FAO-sponsored TCDC (Technical Co-operation among Developing Countries) programme.

Mr Omprakash has received training in brackishwater aquaculture at the National Brackishwater Aquaculture Technology Research Centre at Pagbilao, Quezon, Philippines (Sept-Oct 1991). He also did a short course on shrimp farm management at the Asian Institute of Technology, Bangkok (May 1994). He visited Japan in April 1998 and January 1999 in connection with the procurement of a dredger as part of Japanese grant-in-aid.

Joining CICEF as Assistant Director in 1972, he rose to the position of Director in 1995. He also did two short stints elsewhere in government during this period – as Deputy Commissioner (Fishery Harbour) in the Ministry of Agriculture (1992-94) and as Chief Engineer in Inland Waterways Authority of India, Ministry of Surface Transport (1994-95).



imposing stringent international standards on hygiene, HACCP and ISO 9000, better harbours and more harbours are imperative.

Natural catastrophes such as depressions, storms and cyclones are regular occurrences on both the east and west coasts. Cyclones are particularly frequent, leading to heavy loss of life and damage to fishing vessels. This underlines the need for more sheltered harbours for fishing boats.

Existing fishery harbours – 41 commissioned, 20 under construction – are grossly insufficient for the ever-increasing fishing fleet. The number of harbours should be at least tripled during the next 10 to 15 years. It is also necessary to rehabilitate harbours and fish landing centres (FLCs) that have become defunct or have outlived their useful life span.

CICEF is presently identifying potential sites for locating fishery harbours and FLCs in the various maritime States and Union Territories (UTs).

Given reasonable facilities, the FLCs and minor fishery harbours could contribute significantly to the overall national economy and to their respective regions and could enable the socio-economic uplift of fisher populations.

What is the staff strength of CICEF? What are its facilities?

The Institute is headed by the Director. The sanctioned staff strength is 47 (30 technical, 11 non-technical, 6 administrative personnel). They belong to three divisions – technical, economic, administrative.

The Institute's inter-disciplinary team comprises engineers and economists with specialised knowledge and experience relating to pre-investment studies, engineering and economic investigations, techno-economic feasibility reports for development of fishery harbours, FLCs and brackishwater shrimp farms.



CICEF in action.

The Institute has had its own building in Bangalore since August 2003, situated on 0.755 acre of land, with a built-up area of 1 472 sq. m. The Institute is well-equipped in terms of equipment and other paraphernalia to conduct surveys and technical investigations.

What have been the foremost achievements of CICEF in recent years, including support for post-tsunami reconstruction?

Fishery Harbours

- Till the end of March 2008, the Institute had carried out engineering and economic investigations for the development of fishery harbours/ FLCs at 76 sites and prepared project reports for 75 sites.
- On the basis of project reports prepared by the Institute, the Ministry of Agriculture has sanctioned 61 fishery harbours. Of these 41 have been commissioned and 20 are under various stages of construction.
- The Institute has monitored the construction of fishery harbours and FLCs sanctioned by the Ministry of Agriculture under a Centrally Sponsored Scheme. It has provided technical guidance to the maritime States/UTs in speedy project implementation.

Fish Landing Centres

The Institute has identified sites for the development of FLCs. Reports have been prepared for 10 sites in Tamil Nadu, four in Andhra Pradesh, three in Kerala, 20 in Andaman and Nicobar islands. The governments concerned are taking action on the basis of these reports.

Master Plan

Detailed master plans for fishery harbours and FLCs have been prepared for all maritime States and UTs and submitted as vision documents to them and to the Ministry of Agriculture.

Brackishwater Shrimp Farms

- The Institute has so far reconnoitered 66 200 ha of brackishwater shrimp farm area. Investigations were carried out in 15 584 ha of water spread area in the maritime States of Gujarat, Maharashtra, Goa, Kerala, Tamil Nadu, Andhra Pradesh, Orissa and West Bengal.
- During the period 1986 -1991, four pilot brackishwater shrimp farms and a shrimp seed hatchery were developed under UNDP assistance.
- Under the World Bank-assisted Shrimp and Fish Culture Project, the Institute served as a Nodal Agency for the development of



CICEF in the field.

brackishwater shrimp farms. It was associated with four projects in West Bengal (Canning, Dighirpar, Digha and Dadanpatra Bar), one project in Orissa (Jagatjore/Banapada) and one project in Andhra Pradesh (Bhairavapalem).

Tsunami Rehabilitation

The tsunami struck in December 2004. The Institute inspected affected fishery harbours and FLCs during January 2005 in Tamil Nadu, Kerala and Puducherry and a report was submitted to the Ministry of Agriculture.

Please tell us about the foreign collaborations of CICEF.

The Institute has received technical assistance and expert consultancy services for the development of fishery harbours and for brackishwater shrimp farms and hatcheries from i) the FAO/UN, ii) SIDA, iii) UNDP and iv) World Bank.

How has CICEF been able to contribute to food and nutritional security, human resource development, and policy development in marine fisheries?

Following the creation of fishery harbours and FLCs through CICEF, motorised and mechanised fishing vessels have been landing their fish more systematically and

hygienically. International standards such as HACCP and ISO 9000 are being applied strictly. In consequence, the quality of fish has improved and spoilage has been reduced. This has contributed significantly to the national economy in the areas of food and nutrition. Employment opportunities have gone up manifold. Engineers have been trained to conduct investigations and prepare project proposals.

As regards policy development on marine fisheries, the Ministry of Agriculture is implementing a centrally sponsored scheme on "Development of Marine Fisheries, Infrastructure and Post- Harvest Operations". Establishment of fishery harbours and FLCs is part of this scheme. The objectives of the scheme are:

- Providing infrastructure facilities for safe landing, berthing and unloading of fish catches of mechanised fishing vessels, traditional fishing craft and deep sea fishing vessels.
- Construction of new major fishing harbours in association with maritime State Governments, Port Trusts and UTs.

On the basis of techno-economic feasibility reports (TEFRs) prepared

by CICEF, the Ministry has accorded administrative sanction and provided central assistance as follows:

- (i) 50% of the project cost to maritime State Governments and 100% to UTs for the construction of minor fishery harbours and FLCs;
- (ii) 100% assistance to maritime States, UTs, Port Trusts and Fishermen Associations for construction of major fishery harbours;
- (iii) 50% assistance for the construction of minor fishery harbours and FLCs on a Build-Operate-Transfer (BOT) basis;
- (iv) 50% assistance to maritime States and Port Trusts for repair and renovation/modernization of existing fishery harbours and FLCs, and 100% assistance to UTs.

What are some of the major constraints CICEF faces?

Technical staff trained earlier in India and abroad have either retired or are likely to retire shortly. Technical skills now available with the Institute are limited; there is a shortage of technical manpower. At present, the Institute undertakes only engineering and economic investigations. There is no expertise available for environmental and mathematical model studies to enable complete project reports. Such studies are being carried out by maritime States/ UTs through consultants and research institutes. Consultants are also being used for the development of fishery harbours and FLCs. Some maritime States have acquired expertise in the formulation of project proposals.

What future do you envisage for CICEF?

CICEF has a bright future. We are equipped to face the challenges we are entrusted with in the development of fishery harbours and landing centres in the country.