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Published by:
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## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>CICEF – An Overview</td>
<td>1</td>
</tr>
<tr>
<td>1.1</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Organisation</td>
<td>1</td>
</tr>
<tr>
<td>1.3</td>
<td>Mandate</td>
<td>2</td>
</tr>
<tr>
<td>1.3.1</td>
<td>Fishery Harbours</td>
<td>2</td>
</tr>
<tr>
<td>1.3.2</td>
<td>Coastal Aquaculture Farms and Hatcheries</td>
<td>2</td>
</tr>
<tr>
<td>2.0</td>
<td>Achievements of the Institute</td>
<td>3</td>
</tr>
<tr>
<td>2.1</td>
<td>Achievements during 2013-14</td>
<td>3</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Engineering &amp; Economic Investigations</td>
<td>3</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Post Evaluation Study</td>
<td>4</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Techno-Economic Feasibility Reports (TEFRs)</td>
<td>4</td>
</tr>
<tr>
<td>2.1.4</td>
<td>Field visit to Fishery Harbours and Fish Landing Centres</td>
<td>6</td>
</tr>
<tr>
<td>2.1.5</td>
<td>Pre-Feasibility Reports</td>
<td>7</td>
</tr>
<tr>
<td>2.1.6</td>
<td>Technical Comments</td>
<td>7</td>
</tr>
<tr>
<td>2.1.7</td>
<td>Project Monitoring</td>
<td>8</td>
</tr>
<tr>
<td>3.0</td>
<td>Conference, Workshop and Training</td>
<td>8</td>
</tr>
<tr>
<td>4.0</td>
<td>Meetings</td>
<td>8</td>
</tr>
<tr>
<td>5.0</td>
<td>Visitors</td>
<td>9</td>
</tr>
<tr>
<td>6.0</td>
<td>Publications</td>
<td>10</td>
</tr>
<tr>
<td>7.0</td>
<td>Administration and Finance</td>
<td>10</td>
</tr>
<tr>
<td>7.1</td>
<td>Appointments</td>
<td>10</td>
</tr>
<tr>
<td>7.2</td>
<td>Promotions</td>
<td>10</td>
</tr>
<tr>
<td>7.3</td>
<td>Retirement/resignation/repatriation to parent department</td>
<td>10</td>
</tr>
<tr>
<td>7.4</td>
<td>Implementation of Modified Assured Career Progression Scheme (MACPS)</td>
<td>10</td>
</tr>
<tr>
<td>7.5</td>
<td>Vigilance Awareness Week</td>
<td>11</td>
</tr>
<tr>
<td>8.0</td>
<td>Implementation of Official Language/Hindi Teaching Scheme</td>
<td>11</td>
</tr>
<tr>
<td>9.0</td>
<td>Library</td>
<td>11</td>
</tr>
<tr>
<td>10.0</td>
<td>Implementation of Right to Information (RTI) Act</td>
<td>11</td>
</tr>
<tr>
<td>11.0</td>
<td>Welfare of Employees</td>
<td>11</td>
</tr>
<tr>
<td>12.0</td>
<td>Photos</td>
<td>12</td>
</tr>
</tbody>
</table>
PREFACE

The Central Institute of Coastal Engineering for Fishery (CICEF), Bangalore, a subordinate office of the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India is vested with the responsibility of undertaking techno-economic feasibility studies and preparation of project reports for the development of fishery harbours in the country. The Annual Report contains information on Administration, Finance and Technical activities of the Institute.

This Annual Report highlights the important activities and achievements accomplished by the Institute during the financial year 2013-14.
1.0 CICEF – An Overview

1.1 Introduction

The Institute was established in January 1968 as Pre-investment Survey of Fishing Harbours (PISFH) by the Ministry of Agriculture, Government of India in collaboration with Food and Agriculture Organisation of the United Nations (FAO/UN). The primary objective of establishing the Institute was to carry out engineering and economic investigations and prepare techno-economic feasibility reports for the development of fishery harbours at suitable sites along the Indian coast to provide fishery harbour facilities to Mechanized Fishing Vessels (MFVs). After the cessation of the FAO/UN assistance, the Institute received technical assistance in the form of equipment and expert consultancy services from Swedish International Development Agency (SIDA) for a period of 2 years from January 1974. In August 1983, it was renamed as Central Institute of Coastal Engineering for Fishery (CICEF). Technical expertise was further developed in the subsequent years and from August 1983, the Institute is also catering to the requirements of Aquaculture Engineering for development of Coastal Aquaculture Farms along the Indian coast. The Institute received UNDP/FAO assistance in the form of equipment and consultants from 1986 to 1991 for the development of coastal aquaculture farms.

1.2 Organisation

The Institute is headed by the Director and the total sanctioned strength of officers and staff is 47 comprising technical and administrative personnel. The break-up of the posts is as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Technical</th>
<th>Non-Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Gazetted)</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>B (Non-Gazetted)</td>
<td>03</td>
<td>01</td>
</tr>
<tr>
<td>C</td>
<td>07</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>18</td>
</tr>
</tbody>
</table>

An inter-disciplinary team comprising Engineers and Economists who have specialised knowledge and vast experience on field, in conducting necessary pre-investment studies to identify sites for development of Fishery Harbours, Fish Landing Centres and Brackish water Shrimp Farms, preparation of techno-economic feasibility reports, detailed construction plans for the projects and other supporting facilities are on roll of this Institute. The Organisation Chart of the Institute is as shown below.
1.3 Mandate

The Objectives of the Institute in respect of development of fishery harbours/fish landing centres, coastal aquaculture farms and hatcheries are as below:

1.3.1 Fishery Harbours

- To carry out reconnaissance surveys/pre-feasibility studies to identify priority sites for development of fishery harbours, follow it up by detailed engineering and economic investigations and prepare techno-economic feasibility reports.
- To prepare preliminary construction plans and supporting facilities etc., for fishery harbours.
- To give technical advice on engineering and economic aspects wherever required for the development of fishery harbours and fish landing centres.
- To monitor the progress of construction of ongoing fishery harbours and fish landing centres sanctioned under the Centrally Sponsored Scheme in association with the Ministry of Agriculture.

1.3.2 Coastal Aquaculture Farms and Hatcheries

- To conduct economic and engineering investigations, prepare suitable designs for farms and prepare techno-economic feasibility reports.
2.0 Achievements of the Institute

The Institute, till end of March 2014 has carried out investigations at 88 sites and prepared project reports for 87 sites for the development of Fishery Harbours/Fish Landing Centres.

During UNDP/FAO assistance, four pilot brackish water shrimp farms and one shrimp seed hatchery were developed. Under the World Bank assisted Shrimp Culture Project, the Institute carried out survey and sub-soil Investigations at 13 sites covering a total area of 9640 ha. Techno-economic feasibility reports were prepared in respect of 10 sites covering a total productive pond area of 3826 ha. Trial culture operations were carried out at Digha, Canning and Dighirpar in West Bengal and Bhairavapalem in Andhra Pradesh.

Map showing fishery harbour sites investigated by CICEF

2.1 Achievements during 2013-14

2.1.1 Engineering & Economic Investigations

I Hejamadi Kodi Fishery Harbour in Karnataka

- Conducted detailed Economic investigation in April 2013 for development of Fishery Harbour.

II Periyakalapet fish landing centre in Puducherry, U.T. of Puducherry.

- Conducted engineering investigations in January 2014 for development of fish landing centre.

• Conducted engineering investigations in February 2014 for development of fish landing centre.

IV Arikamedu (Thengaithittu) fish landing centre in Puducherry, U.T. of Puducherry.

• Conducted engineering investigations in February 2014 for development of fish landing centre.

2.1.2 Post Evaluation Study

• Conducted post-evaluation study for Paradip fishery harbour in Odisha.

2.1.3 Techno-Economic Feasibility Reports (TEFRs)

I Kulai Fishery Harbour in Karnataka

• New Mangalore Port Trust (NMPT) have provided the detailed engineering investigations and subsoil investigations data.

• Fishery harbour layout and TEFR were prepared by CICEF.

• Cost of the project was estimated as Rs.151.50 Crores as per the SoR 2013-14 and the FIRR of the project worked out as 9-10%.

• TEFR was issued in January 2014.

Salient features of the Project

Design fleet size

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Size and type of fishing boat</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>12 m Trawler</td>
<td>120</td>
</tr>
<tr>
<td>2.</td>
<td>18 m Trawler</td>
<td>110</td>
</tr>
<tr>
<td>3.</td>
<td>18 m Purse-seiners</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>275</strong></td>
</tr>
</tbody>
</table>

Proposed waterside facilities

– Northern breakwater of 831 m
– Southern breakwater of 262 m
– Dredging the harbour basin to -3.0 m depth
– Landing, outfitting and repair quays of cantilever diaphragm wall structure of 433 m long
– Idle berthing jetties of piled structure 80 m long
– Reclamation to +3.00 m to house the landside facilities
– Revetment with stone pitching
– Navigational aids
Proposed landside facilities

- Fish handling and auction halls – 3 nos.
- Internal asphalted road and WBM surfaces
- RC sloping hard for MFVs
- Fishermen gear sheds – 2 nos.
- Net mending sheds – 2 nos.
- Fishermen rest shed
- Boat repair shop
- Fishery administration office
- Restaurant
- Radio-communication centre
- Public toilet
- Security/guard house
- Compound wall
- Water supply, sewerage including effluent treatment plant, electrical power supply, greenery, fire protection etc.

II Hejamadi Kodi Fishery Harbour in Karnataka.

- Conducted topographic survey in January 2013.
- Economic investigations were conducted in April, 2013.
- Cost of the project was estimated as Rs. 122.59 Crores as per the SoR 2013-14. The FIRR of the project works out to 12-13%.
- Issued the TEFR in January, 2014.

Salient features of the Project

Design fleet size

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Size and type of fishing boat</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>8-10 m OBM boats</td>
<td>967</td>
</tr>
<tr>
<td>2.</td>
<td>Up to 16 m trawlers</td>
<td>85</td>
</tr>
<tr>
<td>3.</td>
<td>16 – 20 m trawlers</td>
<td>31</td>
</tr>
<tr>
<td>4.</td>
<td>Up to 16 m purse-seiners</td>
<td>30</td>
</tr>
<tr>
<td>5.</td>
<td>16 – 20 m purse-seiners</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1,123</strong></td>
</tr>
</tbody>
</table>

Proposed waterside facilities

- Northern training wall/breakwater of 692 m
- Southern training wall/breakwater of 781 m
- Dredging the harbour basin to -3.0 m and approach channel to -3.50 m depth
- Landing, outfitting and repair quays of solid block work structure of 208 m long for MFVs
- Beach landing facility for OBMs of 150 m long
− Idle berthing jetties of piled structure 160 m long (2 nos. each of 80 m long)
− Reclamation to +3.50 m average to house the landside facilities
− Stone bund of 1416 m long all-round the reclaimed area
− Navigational aids

**Proposed landside facilities**

− Fish handling and auction hall – 2 nos. (one each for MFVs and beach landing crafts)
− Internal road network and WBM surfaces
− RC sloping hard for MFVs
− Net mending sheds – 2 nos.
− Fishermen gear sheds – 4 nos.
− Fishermen rest shed
− Fish merchant’s dormitory
− Boat repair shop
− Fishery administration office
− Restaurant
− Radio-communication centre
− Public toilet – 2 nos.
− Security/guard house
− Compound wall
− Fresh water supply, sewerage, effluent treatment plant, electrical power supply, greenery, fire protection etc.
− Provision for repairs to existing facilities.

**2.1.4 Field visit to Fishery Harbours and Fish Landing Centres**

- Visited Karanja fishery harbour site in Maharashtra to witness the confirmatory boreholes for ascertaining the rocky strata levels at the fishery harbour under construction.
- Visited Agardanda proposed fishery centre in Maharashtra regarding finalisation of site for development of fishery harbour.
- Visited Arikemedu (Thengithittu), Periyakalapet, Nallavadu and T.R.Pattinam fishery sites in connection with prefeasibility study for development of fish landing centres in Puducherry.
- Visited Veraval fishery harbour in Gujarat in connection with modernization/renovation proposal under NFDB financial assistance.
- Visited Malim, Chapora, Cutbona and Cortalim fishery sites in Goa in connection with scrutiny of project proposals under CSS submitted by Govt. of Goa.
- Visited ongoing fishery harbour construction sites at Poompuhar, Nagapattinam, Thengaipattinam and Colachel in Tamil Nadu sanctioned under CSS.
- Visited Chinnamuttom fishery harbour in Tamil Nadu to guide the State engineers for construction of breakwater.
- Reconnoitred fishery sites at Vodarevu in Prakasam district, Juvvaladinne in Nellore district, Uppada in East Godavari district, Rallapeta and
Manchineelapeta in Srikakulam district of Andhra Pradesh for development as FH/FLCs.

- Reconnoitred Naigaon proposed fishery harbour site in Maharashtra State.
- Visited Navabander and Madhwad proposed fishery harbour sites in Gujarat in connection with scrutiny of detailed project reports submitted by WAPCOS for sanction under CSS.
- Visited Paradip fishery harbour in Odisha to assess the damage occurred due to the cyclone ‘Phailin’, to suggest permanent solution for erosion and also conducted post-investment evaluation studies of the major fishery harbour.

2.1.5 Pre-Feasibility Reports

I Arikamedu (Thengaithittu), Fish Landing Centre in Puducherry

- The site is located in Ariyankuppam river (Thengaithittu back water) to the south of existing fishery harbour at Thengaithittu, about 7 km from Puducherry.
- The site being situated in the river, sheltered from sea waves.
- Pre-feasibility study conducted in August 2013 and report issued in November 2013.

II Periyakalapet, Fish Landing Centre in Puducherry

- The site is situated in Kalapet enclaves, outskirts of Ozhukarai municipality in Puducherry region. It is about 16 km north of Puducherry.
- The site is located on open sea coast unprotected from sea waves.
- Pre-feasibility study conducted in August 2013 and report issued in November 2013.

III Nallavadu, Fish Landing Centre in Puducherry

- The site is situated adjacent to Nallavadu village about 3 km from East Coast Road (ECR).
- The site is located on open sea coast unprotected from sea waves.
- Pre-feasibility study conducted in August 2013 and report issued in November 2013.

2.1.6 Technical Comments

- Scrutiny of project cost estimate of proposed construction of breakwater of Gangolli fishery harbour in Karnataka submitted by State Government.
- Scrutiny of project proposal for the development of Madhwad and Navabunder fishery harbours in Gujarat submitted by State Fishery Department.
- Scrutinized and submitted comments to Ministry of Agriculture, Govt. of India on Malim, Chapora, Cutbona and Cortalim fishery harbour/fish landing centre project proposals prepared by Government of Goa.
• Scrutinized and submitted technical comments to Ministry of Agriculture, Govt. of India on the project proposal for development of Navapada fish landing centre in Maharashtra.
• Scrutinized and submitted technical comments to Ministry of Agriculture, Govt. of India on the revised project cost estimate of proposed development of Poompuhar fishery harbour in Tamil Nadu.
• Scrutinized and submitted technical comments to Ministry of Agriculture, Govt. of India on the project proposal of fishery harbour at Sassoon Dock in Maharashtra.

2.1.7 Project Monitoring

The Institute undertook project monitoring visits for the ongoing fishery harbour sites at Poompuhar, Nagapattinam, Colachel and Thengaipattinam in Tamil Nadu, Mangalore Stage III in Karnataka.

3.0 Conference, Workshop and Training

The following Conference, Workshop and Training programmes were attended by Director and Officers of CICEF.

• Workshop on “Development of Digital Knowledge Management Platform for Fisheries” held at Kochi.
• Delivered lectures on i) Indian fishing harbours-present status and need of the hour and ii) Preparation of master plan document for development of FHs & FLCs, in a two day Workshop on “Upgradation of fishing harbours and fish landing centres to EU/HACCP standards and its Managements” held at Kochi, organised by National Fisheries Development Board, Hyderabad.
• Three day training course on “Coastal Erosion and Protection” at Pune, organised by Central Water & Power Research Station, Pune.

4.0 Meetings

The following meetings were attended by Director and Officers of CICEF.

• Meeting at Vikas Soudha, Bangalore, under the Chairmanship of Principal Secretary, Animal Husbandry & Fishery Department, Government of Karnataka to discuss the ongoing case in National Green Tribunal, New Delhi on construction of Mangalore fishery harbour Stage III.
• Meeting at New Mangalore Port Trust to discuss development of fishery harbour at Kulai under CSS.
• Meeting at Mumbai to discuss on the revised Deogad fishery harbour layout and follow up actions on Versova fishery harbour in Maharashtra on 10th May 2013.
• Meeting at Mumbai for the proposed Agardanda fishery harbour project at Raigad district in Maharashtra on 18th May 2013.
• Karnataka State Level Monitoring Committee meeting at Bangalore, held on 19th July 2013.
• Meeting convened by Government of Karnataka regarding proposed development of fishery harbour at Kulai.
SLMC meeting at Secretariat, Chennai to review the progress of fishery harbour projects in Tamil Nadu.

Meeting at Vidhana Soudha, Bangalore in connection with development of fishery harbour / fish landing centres in Karwar district, Karnataka chaired by the Minister for Tourism and Higher Education and In-charge Minister for Karwar district.

SLMC meeting at Mantralaya, Mumbai under the chairmanship of Secretary, ADF to review the progress of fishery harbour projects in Maharashtra on 5th December 2013.

Sub-committee meeting on Karanja fishery harbour project held on 14th March 2014 and presented the Karanja fishery harbour revised layout.

Meeting at Commissionerate of Fisheries, Hyderabad regarding pre-feasibility study of FH/ FLC sites viz., Juvaladinne, Vodarevu, Uppada, Manchineelapeta and Rallapeta.

5.0 Visitors

The officers from the Ministry of Agriculture, Government of India and Maritime States/UTs, who visited this Institute for discussions, inspections, meetings etc., are given below:

**Government of India**

- Shri Vishnu Bhat, Fisheries Development Commissioner, AHD&F, New Delhi, visited the Institute on 26th April 2013 and reviewed the activities of the Institute.
- Shri Manash Chaudhary, Deputy Advisor (Fy), Planning Commission, Ministry of Agriculture, New Delhi visited on 14th November 2013 and reviewed the activities of the Institute.

**Government of Karnataka**

- Executive Engineer, Assistant Executive Engineer and Assistant Engineer from Ports & Fisheries Division, Udupi visited the Institute regarding finalisation of project cost estimate of proposed Hejamadi Kodi fishery harbour.
- Executive Engineer, Assistant Executive Engineer and Assistant Engineer from Ports & Fisheries Division, Udupi visited the Institute regarding finalisation of project cost estimate of proposed Kulai fishery harbour.

**Government of Tamil Nadu**

- Mr. Gnana Prakasham and Mr. Radhakrishnan Assistant Engineers from Fishery Harbour Projects visited this Institute in connection with finalisation of revised Project Cost Estimate of Poompuhar Fishery Harbour.

**Government of Maharashtra**

- Mr. S.Y. Deokar, Section Engineer, Ratnagiri Harbour Division, visited in connection with finalization of revised cost estimate of Ratnagiri fishery harbour Stage II development in April and May 2013.
- Sri Patil, Assistant Harbour Engineer, Deogad visited in connection with revision of FH layout and facility drawings of Deogad fishery harbour on 24th June 2013.

- Sri Sawanth, Assistant Harbour Engineer and Sri Chacharkar, Assistant Engineer from Navi-Mumbai visited the institute for discussion regarding revision of Karanja fishery harbour layout and facility drawings.

**Government of Gujarat**

- Shri R.N. Prasad, Team Leader, WAPCOS, Gandhi Nagar and Shri S. Kapase, Consultant visited this Institute to discuss on the Madhwad and Navabandar fishery harbour proposals on 18th November 2013.

6.0 **Publications**

Annual Report 2012-13

7.0 **Administration and Finance**

Against Budget Estimate (BE) of Rs.375 lakhs and Revised Estimate (RE) of Rs.300 lakhs under Non Plan, an expenditure of Rs. 262.83 lakhs have been incurred during the fiscal year 2013-14.

7.1 **Appointments**

- Shri Pawan Kumar was appointed as Administrative Officer with effect from 23rd September 2013.

7.2 **Promotions**

- Shri N.Venkatesh Prasad, Deputy Director (CE) was promoted as Director with effect from 1st July 2013.
- Shri G.Ganesan, Assistant Director (Eco) was promoted as Deputy Director (Eco) with effect from 20th June 2013.

7.3 **Retirement/resignation/repatriation to parent department**

- Shri C.T.Betgiri, Director, retired from service on superannuation on 30th June 2013.

7.4 **Implementation of Modified Assured Career Progression Scheme (MACPS)**

A Departmental Screening Committee was constituted to consider the cases for the grant of financial upgradation under MACPS to staff of this Institute.

The Committee held its meetings on 16th December 2013 and 5th February 2014 considered and cleared the following cases for the grant of financial upgradation:

ii. Sri N.Nagendra Rao, Steno Grade II for 3rd financial upgradation with effect from 12th January 2014.


Further, the Committee also held its meeting on 7th March 2014 and considered the case of Sri N.Mukundappa, UDC cum SK for the grant of 2nd financial upgradation, but didn’t clear the case.

7.5 Vigilance Awareness Week

The Institute observed Vigilance Awareness Week from 28th October - 02nd November 2013.

8.0 Implementation of Official Language/Hindi Teaching Scheme

As per the guidelines issued by the Government of India, various activities concerning the implementation of Official Language were carried out at the Institute.

An Official Language Implementation Committee was constituted with the following members. The committee periodically met and reviewed the progressive use of Hindi in official correspondence.

S/Shri
N.Venkatesh Prasad, Director Chairman
N.Ravi Sankar, Deputy Director (CE) Member
M.B.Belliappa, Deputy Director (CE) Member
H.R.Nagaraj, Assistant Director (CE) Member
Pawan Kumar, Administrative Officer Member

The Institute celebrated Hindi Divas on 14th September 2013 and Hindi fortnight between 14th and 29th September 2013.

9.0 Library

The Institute is having a library with collection of several technical and administration books/journals. 2 nos. of books were added newly to the collection in this year.

10.0 Implementation of Right to Information (RTI) Act

The Institute received 39 numbers of applications under RTI Act during the year and information supplied.

11.0 Welfare of Employees

- A Farewell was organised to Shri C.T.Betgeri, Director, retired from service on superannuation on 30th June 2013.
- Formation day of the Institute celebrated on 10th January 2014.
- A condolence meeting was organised on the sad demise of Shri Munibyalappa, Driller, who died on 19th January 2014.
12.0 Photos

Photo 1: Engineering investigations at Periyakalpet, Puducherry.

Photo 2: Subsoil investigations carried out at Arikemedu, Puducherry.

Photo 3: Panoramic view of Navabandar existing fishery centre in Gujarat.