

40 YEARS
OF
RESEARCH AND DEVELOPMENT
IN
MARINE FISHERIES IN INDIA



**A Souvenir issued at the National Symposium on
Research and Development in Marine Fisheries
held at Mandapam Camp, 16 - 18 September 1987, to mark
the 40th Anniversary of
Central Marine Fisheries Research Institute, Cochin
(Indian Council of Agricultural Research)
P. B. No. 2704, E. R. G. Road, Cochin-682 031**

The Central Institute of Fisheries Nautical and Engineering Training

The Central Institute of Fisheries Nautical & Engineering Training (CIFNET) was established at Cochin in 1963 by the Ministry of Agriculture, Government of India. The Institute is the only one of its kind in India providing technical courses to train personnel for Ministry of Transport examinations for the various certificates of competency in the Fisheries, Navigation and Marine Engineering branches. Subsequently, to meet the increased demand of trained manpower for manning oceangoing fishing vessels, two units were started, one at Madras (1968) and the other at Visakhapatnam (1981).

OBJECTIVES

The main objectives of the Institute are:

- * To create technical manpower to man oceangoing fishing vessels, to run shore-infrastructure establishments and to create technical teachers for the government-owned fishermen training centres
- * To provide technical consultancy services in all matters concerning marine fisheries with special reference to technical manpower requirements
- * To conduct studies on fishing craft, gear and equipments and provide extension training to accelerate advancement in fishery technology
- * To help developing nations in the South East Asian, Middle East and African regions to create technical manpower for development of marine fisheries

FUNCTIONS

TRAINING COURSES

The two core training courses are Mate Fishing Vessel Course (MFVC) and Engine Driver Fishing Vessel Course (EDFVC). These two courses are aimed at training Cadets to obtain competency certificate in Fisheries, namely "Mate Fishing Vessel" and "Engine Driver Fishing Vessel" issued by the Ministry of Transport, Government of India. The total intake of these courses is 100 each.

ANCILLARY COURSES

1. Shore Mechanics Course of 12 months for 20.
2. Radio Telephone Operators Course of 9 months for 15.
3. Teacher Training Course of 6 months for 10.

ADVANCED DIPLOMA IN FISHING GEAR TECHNOLOGY

A special course on "Advanced Diploma in Fishing Gear Technology" of 12 months with intake capacity of 8 candidates is conducted at Cochin.

ENGINEER (FISHING VESSEL) COURSES FOR DIPLOMA HOLDERS IN MECHANICAL ENGINEERING

A special programme (for Diploma holders in Mechanical Engineering) of 6 weeks class-room teaching followed by onboard practical training to acquire 6 months qualifying sea service is conducted. This is a crash programme to create Engineers holding (FV) Competency Certificate, who are in very short supply in the country.

SHORT-TERM TRAINING PROGRAMME FOR NATIONAL CANDIDATES

1. Training in Fishing Gear Technology for Fisheries Extension Officers.
2. Short-term course in Ocean Management and Fisheries Technology for Coast Guard officers.



Candidates are given extensive training including that for onboard handling of catches



Handling of purse seine



Net mending
onboard

3. Short-term course in Fishing Gear Technology for Fishery Officers.
 4. Short-term course on the operation and maintenance of Electronic equipments for Skipper (fishing vessel) Mate (fishing vessel) Engineer (fishing vessel) Competency certificate holders.
 5. Short-term programme in Fleet Management for entrepreneurs/Managers.
 6. Condensed Teacher Training Course for inservice staff.
2. Engine Driver (Fishing vessel)
 3. Skipper (Fishing vessel)
 4. Engineer (Fishing vessel)
 5. Certificate of proficiency examination conducted by Ministry of Communication.

**TRAINING PROGRAMME
FOR OVERSEAS CANDIDATES**

Institute offers training in various technical disciplines related to fisheries to the overseas candidates from developing and underdeveloped countries.

**SHORT-TERM REFRESHER COURSES
FOR NATIONAL CANDIDATES**

1. Mate (Fishing vessel)
2. Engine Driver (fishing vessel) Competency certificate examination
3. Course on construction of fishing boats in ferrocement in association with FAO
4. Introduction of high opening bottom trawls



Overseas trainees
fabricating
full size net

ACHIEVEMENTS

CANDIDATES TRAINED

A total of 2887 candidates have been trained as given below:

Mate Fishing Vessel Course	1028
Engine Driver Fishing Vessel Course	1008
Boat Building Foremen Course	98
Shore Mechanics Course	170
Gear Technicians Course	133
Radio Telephone Operators Course	189
Engineer (FV) Course for DMEs	18
Teachers Training Course	32
Advance Diploma in Fishing Gear Technology Course	6
Special Training-cum/In-service Training Courses	205

COMPETENCY CERTIFICATE

Skipper (Fishing)	275
Second Hand Fishing	383
Engineer (Fishing vessel)	123
Engine Driver (Fishing vessel)	349

Sixty-eight candidates, from countries such as Nigeria, Tanzania, Zambia, Ghana, Kiribali, PRD Yemen, Fiji, Philippines, Burma, Laos, Bangladesh and Maldives, have also been trained, two of them under the Common Wealth Fund for Technical Cooperation Scheme, under different courses.

INTRODUCTION OF DIVERSIFIED FISHING IN TRADITIONAL SECTOR

High opening bottom trawls were introduced in Gujarat in 1983 to train small-scale fishermen to diversify their fishing effort from shrimping. The High opening trawl differs from the conventional shrimp trawls in its design, construction and rigging. With the introduction of this trawl, the local fishermen have been able to catch the columnar

fishes also in addition to the bottom fishes. The training programme was so successful that about 500 mechanised fishing boats in Gujrat have now adopted high opening bottom trawls, increasing their production considerably.

TUNA LONGLINING TECHNOLOGY AND LOCATION OF TUNA GROUNDS

A large number of officers and crew were trained in the tuna longlining technology. The 'Intensive Tuna Drive' also helped in locating oceanic tuna resources in the areas around equatorial waters, Arabian Sea, Bay of Bengal and Andaman waters and a very rich ground for 'Yellow-fin' in the EEZ off Karwar-Goa.

TECHNIQUES FOR EXPLOITATION OF DEEPSEA LOBSTER

The vessel Blue Fin in May, 1987, confirmed the feasibility of commercial exploitation of deepsea lobsters along the continental slope of southwest coast. Since then, the services of an experienced skipper was made available to the industry to organise lobster trawling.

PERCH RESOURCES

Two training vessels 'PRASHIKSHANI' and 'BLUE FIN' were deployed in Wadge Bank, profitably exploiting the perch resources during monsoon period, when the large vessels would generally be idle because of off season for shrimp.

SEMINAR, WORKSHOP

An International Seminar on Training and Education for Marine Fisheries Management and Development was organised at Cochin in January 1986, under co-sponsorships of the Department of Ocean Development, Marine Products Export Development Authority, Kerala Agricultural University and University of Cochin.

The Workshop, jointly organised by CIFNET, Marine Products Export Development Authority and Association of Indian Fishery Industry, was held at Vizag in April, 1987.



**Overseas student
gets training
in pump assembling**



Engineering training



Training in electronic equipments
— A joint
venture of NORAD and CIFNET

The workshop considered the qualitative and quantitative requirements of technical manpower for the development of fishing industry during the coming years and unanimously passed recommendations for implementation by the concerned agencies to prepare the required manpower in time.

PUBLICATIONS

Institute publishes News Letters, Bulletins, Annual Reports and Fishing Gear Catalogues.

FUEL SAVING IN SMALL BOATS

A training for fuel saving in small fishing craft was conducted in 1983 in association with FAO, under the Technical Cooperation Programme. The objective was to save fuel by fitting Kort nozzle in combination with special type propellers to the existing small craft. Integrated Fisheries Project and Central Institute of Fisheries Technology also participated in the programme. The programme has proved that Kort nozzles in combination with special type of propellers would help save fuel to the extent of 20 to 33%. This was subsequently made use of in two ferrocement fishing boats.

FAO-INDIA TRAINING PROGRAMME

A training programme on the introduction of ferrocement as an alternative to timber in the construction of in-shore fishing vessels was carried out in 1985, also under the Technical Cooperation Programme. 17 National fishing craft technologists sponsored by State Governments, Union Territories, Government of India Organisations and Ship Building Yards participated in the training programme.

DECK OFFICERS TRAINING

In order to improve the quality of deck officers, the existing 15 months Fishing Secondhands Course was upgraded to an 18 months Mate Fishing Vessel Course in 1983, adding Meteorology, Stability and Electronics as detailed subjects in the curriculum. The upgradation of the

Course was also intended to meet the new Mercantile Marine Department examination rules that are expected to come into force by 1988.

FUTURE PROGRAMMES

To meet the demand for highly competent officers in future, two 3-year Diploma courses are proposed to be implemented. One is Diploma in Fishing Engineering and the other is Diploma in Fisheries and Nautical Sciences. Two high level committees headed by the Director, Directorate of Marine Engineering Training, Calcutta and the Principal, Lal Bahadur Shastri Nautical & Engineering College, Bombay, are working out the syllabus, training pattern, examination rules, etc.

It is also proposed to conduct the following short-term courses to meet the requirement of the new Mercantile Marine Department Examination Rules.

1. Radar Observers Course
2. Lifeboatmen Certificate Course
3. Radio Telephone (Restricted) Certificate Course
4. Elementary Fishing Technology Course (for deck officers)
5. Advanced Fishing Technology Course (for deck officers)
6. First Aid at Sea Certificate Course
7. Fire Fighting Certificate Course

The Institute also would shortly start a 12 months advanced Diploma Course in Fleet Management for the benefit of the private entrepreneurs in fishing industry.



Training in ferro-cement boatbuilding

TRAINING IN ELECTRONIC EQUIPMENTS

The training programme on use of electronic equipments for officers working onboard and at shore, like the ones conducted in 1984 and 1986 with the collaboration of NORAD, is proposed to be organized on an annual basis for the benefit of officers belonging to state governments.

SHORT-TERM TRAINING

A 3-month training course for qualified skippers and engineers of fishing vessels is proposed to be conducted at Madras.

UPGRADING CIFNET

Considering the large number of training and development programmes undertaken by the Institute, the Government has approved the upgradation of CIFNET on the basis of recommendations of the Professor Indiresan Committee. A new Extension Section will be formed to impart training in the Advanced Fishing Technology to the small-scale fishermen. It is hoped that the upgradation of the Institute will be completed by 1988.

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