Fish technology newsletter

Vol. III No. 8 APRIL–JUNE 1983

Application of preservatives developed by CIFT on fishing boats at Saudi, near Cochin. Report on Page 4

CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY
MATSYAPURI P. O. COCHIN - 682 029

CONTENTS

Foreword

Fish Technology Newsletter is a quarterly intended to bring the fishery industry in India in touch with some of the important developments in fisheries technology resulting from investigations carried out at this Institute and elsewhere. It is not a research publication. Every effort has been earnestly made to express the ideas in non-scientific language. Its ultimate aim is the application of the results of contemporary research for the advancement of our fishery industry.

Fish Technology Newsletter does not owe allegiance to any manufacturer, patent, product or development agency unless otherwise specified. Its purpose is to open up a communication channel through which useful ideas can be exchanged, problems discussed and success shared. The process of exchanging views and opinions makes it easier to identify the real issues and that is where problem-solving begins.

We welcome contributions from any source which will help to achieve our above-mentioned aim, The sources of all such contributions will be acknowledged. We sincerely hope that the current events and informations contained in the columns "GLEANINGS FROM OTHER JOURNALS" and "LET'S TALK IT OVER" will be of interest to the Indian fishing and fish processing industries.

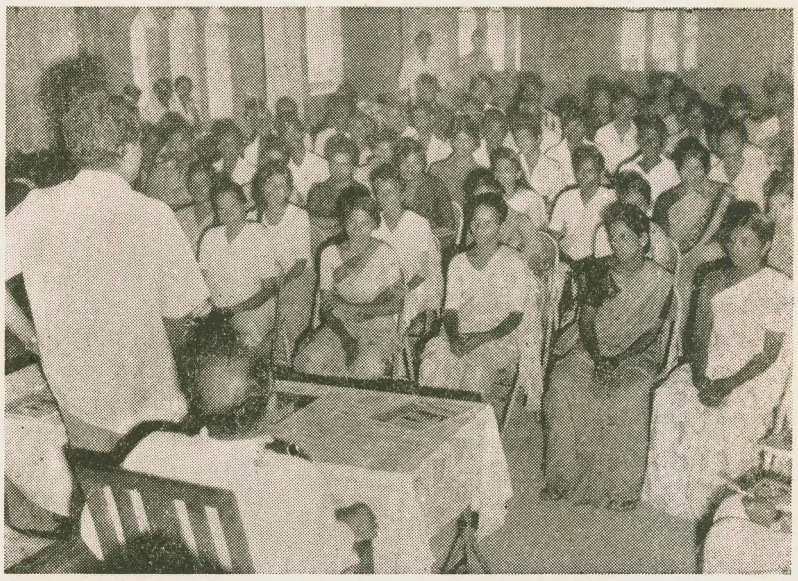
We also welcome suggestions from our readers for improvement in the contents and get-up of Newsletter. Any part of this publication may be reprinted in any language if the translation is true and the source is acknowledged.

Abbreviation: Fishtech News

Editorial Committee.

CIFT Scientists Meet Fishermen

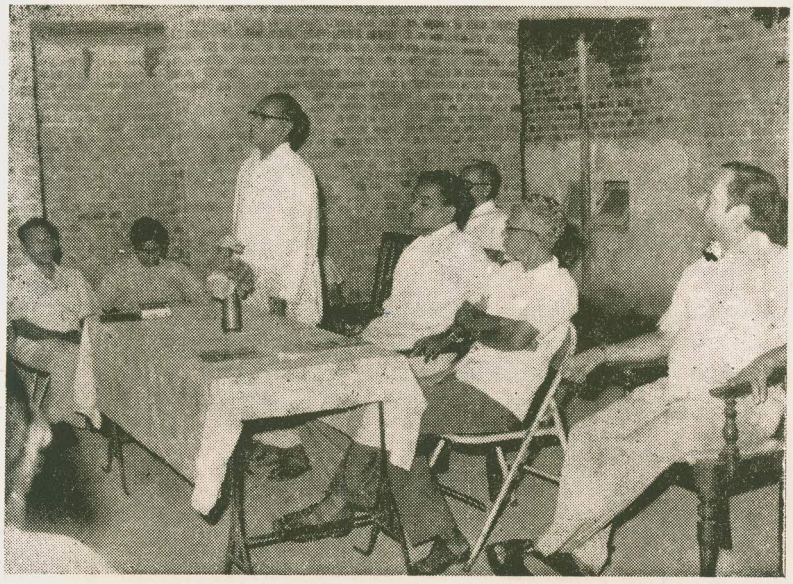
As part of the National Agricultural Programme Input Fortnight, CIFT, Cochin, conducted a group meeting of fishermen at Saudi, a fishing village near Cochin, on June 14, 1983. This was followed by a demonstration of application of preservative on fishing craft, and exhibition of the processed products developed at the Institute.



CIFT Director, Dr. C. C. Panduranga Rao inaugurates the group discussion.

The objective of the programme was to make the traditional fishermen aware of the technologies developed by CIFT on the maintenance of fishing crafts, and to enhance fish landings through improved fishing gear, and to utilise the fish to the fullest extent possible.

The Scientists gave out details regarding the trawl net fabrication, application of mini purse seine, preservation of indigenous fishing crafts and utilization of low cost fishes, and answered their queries. Detailed discussions were held on the above subjects, particularly, the economic viability of the technologies developed vis - a - vis employment generation.



Fr. Paul Arackal Addresses the Fishermen.

It was pointed out that modern trawl net fabrication could be profitably adopted as means of self employment for fisher women folk.

Scientists later demonstrated the application of the preservative - CREOSCOR - on a 50 feet Thanguvallam (country boat) owned by K. O. Varghese.

This newly innovated preservative will keep all

Indian Fishes Free From Toxic Materials*

Rapid industrialisation and modern agricultural practices have made environmental pollution a problem to reckon with. Huge quantities of waste from industrial and other sources have disturbed the natural equilibrium to a considerable extent and the problem has already acquired alarming proportions in the developed nations. They have accordingly, taken steps to regularly monitor the extent of pollution and are devising methods to prevent its bad effects. With growing industrialisation and changing agricultural practices, such a constant monitoring has become essential in India also.

Being the final dumping ground for all industrial wastes and agricultural discharges, the marine environment is highly prone to such pollution. Heavy metals like mercury, cadmium, lead, arsenic etc., and pesticides are among the major pollutants that can be found in marine organisms in coastal waters. These pose serious health hazards and could adversely affect the export potential of our products from the quality point of view. The Biochemistry and Nutrition Division of C I.F.T. has, therefore, taken up a programme to moritor the accumulation of these two groups of pollutants-toxic metalc and pesticide residues in food fishes and shell fishes of our coast Samples are being analysed regularly by modern techniques like gas chromatography, flame atomic absorption spectrophotometry, cold vapour atomic absorption spectrophotometry etc.

Data collected so far have shown that the marine fishes/shell fishes landed in our coast are, as yet, not polluted to any harmful extent. Mercury, one of the most important pollutants, occurs only to the extent of 25-50 parts per billion in our fish and shell fish, This is far below the harmful limits of toxicity. This is the case with other toxic heavy metals also. However, we have to maintain constant vigil in this regard to ensure complete safety and with this in view, CIFT is undertaking work on regular monitoring of these pollutants in marine products. □

★Prepared by the Scientists of Biochemistry & Nutrition Division, CIFT.

wooden structures free from biological degradation and thereby will enhance the service life of the traditional fishing crafts.

Inaugurating the group discussions, Dr C. C. Panduranga Rao, Director, CIFT, pointed out that technical input was one of the most important aspects for self reliance compared to other ingredients He assured the fishermen and the enterpreneurs that they could make use of the expertise available at the Institute for getting better returns from their boats and also for the optimum utilisation of the fish catch. The Institute could arrange training programmes on the different subjects for their benefit at places of their choice, he said.

Fr. Paul Arackal, the local Parish Priest, who presided, outlined the various problems faced by the fishermen of the coastal area.

Sh. M. R. Nair, Senior Scientist, welcomed the gathering. □

A Survey on the Under Utilization of Fish Processing (Freezing) Plants in India - IX West and East Coasts

At present, there are 276 fish processing plants (Freezing) all over India engaged in the processing of shrimps, froglegs, lobster tails and other quality fishes, 182 in the west coast and 94 in the east coast. The total installed capacity of the plants in the west and east coasts were estimated to be 220.7 and 83.9 thousand tonnes respectively (based on 250 normal working days in a year and double shift per day). With the increase in the number of fish processing plants in both the coasts, the total installed capacity also has increased considerably, but the quantity of raw material required for processing had not increased to the tune of total installed capacity resulting in the under utilization of plants in both the coasts. As no reliable estimates of the idlecapacityofplants inthesetwo coasts-were available, a survey was undertaken during 1979-82 in order to estimate the extent of idle capacity existing in the fish processing plants, to identify the factors responsible for the idle capacity and to suggest remedial measures to reduce the same. The findings of the survey are summarised in this article.

A stratified sampling plan was used for estimating the idle capacity of the plants, the strata being plants under 5 tonnes 5 to 10 tonnes, and above 10 tonnes capacity per day. A total of 93 plants was sampled from both the coasts for the study.

Data from selected plants were collected for the years 1978 to 1981 as per the proforma prepared for the study. The estimate of idle capacity was worked out by taking 250 normal working days in a year and double shifts per day. The percentage idle capacity of the plants in the west and east coasts is presented in Table I.

It is evident from Table I that there was substantial under utilisation of plants and compared to 1978, there was a reduction in idle capacity in 1981 in both the coasts. In the west coast, idle capacity decreased from 76.9% in 1978 to 67.4% in 1981. In the east coast, the idle capacity decreased from 75 9% in 1978 to 69 1% in 1981. The percentage error of estimates of idle capacity worked out for both the coasts were well within reasonable limits indicating the reliability of the estimates.

Among different strata, plants under 5 tonnes capacity per day were having comparatively less idle capacity in the west coast during 1980 and 1981 but in the east coast, plants whose capacity ranged between 5 to 10 tonnes were having comparatively less idle capacity during the same period. In both the coasts, plants above 10 tonnes capacity per day were experiencing the maximum idle capacity during 1980 and 1981.

The factors responsible for the idle capacity of plants in the west and east coasts are listed in Table II. It is evident from this Table that non-availability of raw materials for processing was the prime factor responsible for the under utilization of plants

TABLE I - IDLE CAPACITY OF FISH PROCESSING PLANTS IN THE WEST AND EAST COASTS OF INDIA

(Based on 250 Normal Working days and double Shift per day)

	West Coast				East Coast			
	1978	1979	1980	1981	1978	1979	1980	1981
Annual industrial capacity (in thousand tonnes)	220.7	220.7	225.7	225.7	83.9	80.3	80.4	80.4
Estimated idle capacity (in thousand tonnes)	169.7	161.4	161.8	152.1	63.7	58.2	57.7	55.6
% idle capacity	76.9	73.2	71.7	67.4	75.9	72.5	71.7	69.1
% of error estimate	6.0	7.0	5.5	6.2	6.9	4.7	4.6	5.6
Stratum wise % idle capacity								
Plants under 5 tonnes per day	75.6	69 8	66.7	61.6	75.5	72.3	71.6	69.1
5 to 10 tonnes per day	68.2	66.5	71.8	68.6	81.2	69.7	66.2	64.2
Above 10 tonnes per day	83 2	79.8	75 5	71.2	68.2	77.0	79.1	75.3

TABLE II-LIST OF FACTORS RESPONSIBLE FOR THE IDLE CAPACITY OF PLANTS IN THE WEST AND EAST COASTS

(% of plants reported the factor in the sample)

Sl. No.	Factors	West Coast	East Coast
I.	Non-availability of raw meterial	89.6	82.2
2.	High cost of production	52.1	53.3
3.	Frequent Power failures/storage	29.1	62.2
4.	Labour troubles	16.7	20 0
5.	Unsteady foreign markets	10 4	4 4
6.	Storage of potable water	10.4	15.6
7.	Cut-throat-competition for procuring the raw material	8 3	4.4
8.	Shortage of ice	8.3	24.4
9.	Lack of transport facilities	8.3	13.3
10.	Lack of cold storage facilities	6.3	4,4
11.	Investment in holding the material upto shipment	2.1	—
12.	Delay in gettlng the purchase order	2.1	—
13.	Lack of technical hands	—	2,2

Training in Fish Processing

Improved methods of sun drying of fish

A three-day demonstration-cum-training in the techniques of fish pickling and the improved methods of sun-drying of fish ended on April 21, 1983 at Thebra village in Sambalpur district, Orissa.

Organised by the Burla Research Centre of CIFT in collaboration with the Orissa State Fisheries Department and Thebra Primary Fishermen Co-operative Society, thirty nine persons including the State Fisheries Department personnel participated in the training programme.

The techniques of fish pickling and improved method of sun-drying the low cost fish, Gudusia chapra, developed by the Research Centre were demonstrated.

Convinced by the simplicity and feasibility of the technique, the Thebra Fishermen Society has come forward to start a small scale unit of fish processing. The fishermen also expressed the hope that they would get better price in future, when more and more small scale units start functioning for processing the G. chapra. □

---

in both the coasts. Among other factors, high cost of production, frequent power failures/shortages, cut-throat-competition among processors for procuring the raw material, labour troubles, shortage of ice and water during peak season were found to affect the industry adversely.

Based on the survey, following are few recommendations which will help to reduce the idle capacity of plants in both the coasts.

i) Promoting mass aquaculture of prawns.

ii) Diversification of products.

iii) A temporary ban on issuing licence to new plants.

iv) Subsidy on diesel oil to all class of fishing vessels.

v) Improved shipping facilities.

vi) Abolition of purchase tax on raw material.

vii) Liberalised bank loans to small processors.

viii) Steady supply of prawn and potable water to processing plants.

ix) Exploration of new prawn grounds and introduction of more deep sea fishing trawlers to boost up prawn catch.

x) Improved cold storage facilities.

xi) Fixing a floor price for fishing products. □

★Prepared by H. Krishna Iyer, G. R. Unnithan, P. S. Rao, A. K. Kesavan Nair & R. G. Nair.

Symposium Recommendations

The Society of Fisheries Technologists (India) organised a Symposium on "Harvest and Post Harvest Technology of Fish" at Cochin during November 1982 which was reported in our October–December 1982 issue (Vol. III, No. 6)

The Society has now released their recommendations that have emerged out of the Symposium proceedings which are reproduced below.

1.0 RESOURCES

Species-wise and depth-wise resources	1.1	Assessment of marine fishery resources of inshore and offshore, species-wise and depth-wise be given emphasis.
Inland water management	1.2	Reservoir and inland water-spread management through seed production, stocking and harvest technology to be improved.
Coastal aquaculture	1.3	Coastal aquaculture development for increasing fish and shell fish production to be accelerated.

2.0 FISHING CRAFT, MACHINERY AND EQUIPMENT

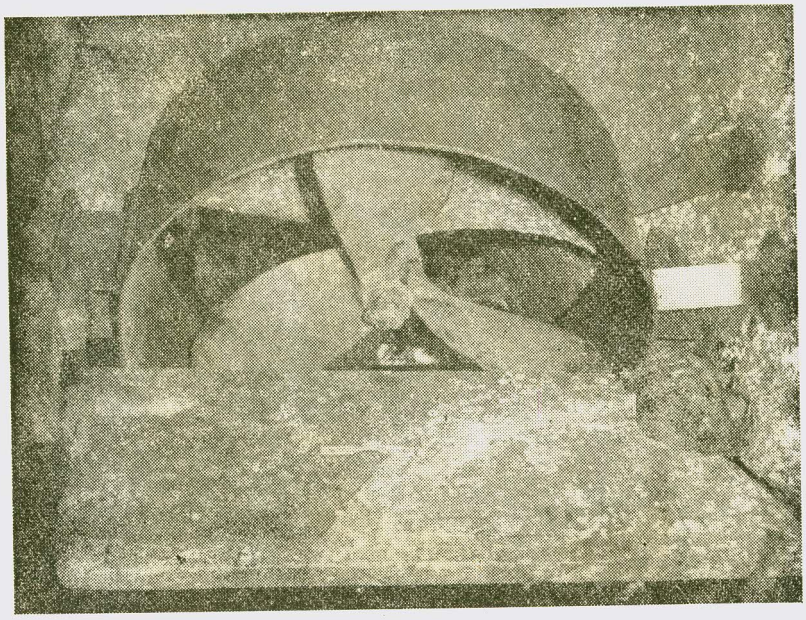
Long range perspective plan	2.1	In the context of the declaration of the EEZ there is immediate need to draw up a 20 year long range perspective plan for the procurement of at least 300 steel trawlers of 15–50 m OAL and 200 wooden trawlers of 11-15 m OAL. In addition to this, 100 steel fishing crafts employing other methods of fishing such as long lining and purse seining should also be procured.
Design and development of 16 m OAL vessels in steel	2.2	Design, development and standardisation of fishing boats above 16 m OAL including combination vessels to be taken up on a priority basis for the exploitation of EEZ.
Design and development of 16-25 m OAL wooden vessels	2.3	Design and prototype construction of fishing crafts of size 16–25 m OAL utilizing durable species of wood abundantly available in Andaman & Nicobar Islands and elsewhere to be taken up.
Design and development of inshore vessels in non-conventional materials	2.4	Design, development and conrtruction of smaller crafts using materials such as aluminium, ferrocement, vulcanized reinforced rubber and fibreglass in addition to wood are to be taken up immediately to benefit the small scale fishermen of the country.
Newer boat-building materials	2.5	Studies on characteristics and behaviour in sea water of potentially important boat building materials such as wood plastic composites (WPC), toxic incorporated wood plastic composites (TWPC), vulcanized-reinforced rubber, polymer incorporated ferrocement, marine aluminium alloys and cupronickels are to be intensified.
Mobile wood preservation plants	2.6	As the total investment on indigenous craft is around Rs. 530 million there is urgent need to intensify research on protection of indigenous crafts laying emphasis on chemical wood preservation. Establishment

of wood preservation and treatment plants (including mobile plants) at selected locations are required, to enable the artisanal fishermen to treat their crafts with preservatives.

Marine corrosion control and coatings technology	2.7	To combat the heavy economic loss due to marine corrosion and fouling in the context of employment of large number of fishing vessels in the EEZ, there is an urgent need to accelerate research on marine corrosion control measures and coating technology.
Fuel saving technology	2.8	Improvements of indigenous crafts incorporating fuel saving technologies are to be made.
Standardisation of vessels and equipment	2.9	Fishing boats, machinery and equipment on board are to be standardised with respect to subject, aspect, level and technical area based on the recommendations of the Technical Committee of the International Standards Organisation.
Subsidy for wooden boats	2.10	The Governement subsidy of 33 1/3% now allowed for steel boats in 20m and above built in India, may be extended for constructing similar boats in wood.
	3.0	FISHING GEAR AND METHODS
Newer synthetic gear materials	3.1	Research on the characteristics of newer synthetic materials developed by the industry is to be intensified to indentify the suitability of the same for development as fishing gear materials.
Appropriate technology for artisanal fisheries	3.2	Research and development on modifications of available technologies to make it appropriate for the artisanal sector is to be intensified.
Fishing techniques for middle and distant water fisheries	3.3	The middle and distant water fisheries being under exploited, there is an urgent need for undertaking research on fishing technique suitable for the development of the fishery.
Low energy input passive gear	3.4	The possibility of greater applications of passive gear like gill net, long line and trap far exploitation of fisheries in general and marine fisheries in particular to be explored to conserve fuel.
Modeling and fish behaviour	3.5	Analytical studies like modeling and fish behaviour are to be given priority in fishing gear research.
	4.0	FISH PROCESSING, HANDLING, TRANSPORTATION AND STORAGE
Processing fish for domestic consumption	4.1	Emphasis should be given for finding simple, cheap and quick method for processing of fish for domestic consumption.
Heat penetration and safety of heat processed fish	4.2	Studies on heat penetration and safety of heat processed fish products canned in various containers may be intensified.
Substitutes for tin cans	4.3	More research has to be done to develop, substitutes for tin cans or packing of heat processed fish.

Improved method of handling of fish and fish seed	4.4	Improved methods of handling, transport and storage of fish seed and live fish are to be evolved.
CSW system for preservation of catch	4.5	Development of on-board CSW system for preservation of bulk purse-seine catch requires immediate attention.
Newer techniques of storage of fish	4.6	Modified atmosphere storage, radiation pasteurisation and superchilling of fresh fish should receive attention.
	5.0	FISHERY PRODUCTS AND BY-PRODUCTS
Utilization of non-conventional resources and by-catch	5.1	Non-conventional resources and by-catch of shrimp trawlers are to be utilized for low cost products for human consumption.
Utilization of Squilla	5.2	Work on utilization of squilla deserves the attention of research institutes.
	6.0	FISH INSPECTION AND QUALITY CONTROL
Quality control of domestic consumption	6.1	As the existing fish inspection and quality control measures are exclusively applied to export products, thus leaving out of their purview 97% of the landings for domestic consumption, immediate measures are needed to introduce and enforce quality control measures in this sector as well.
Statutory quality control	6.2	Statutory requirement for handling, storage and transport of fresh fish should be enforced to ensure better utilization, quality and hygiene.
Measures for elimination of salmonella	6.3	Strict measures are to be further intensified for eliminationa of salmonella in fish and fishery products.
Monitoring of aquatic environments	6.4	Monitoring of aquatic environments for heavy metals, pesticides etc. affecting aquatic life and studies on consequent health hazaard should receive more attention.
	7.0	EXTENSION AND EDUCATION IN FISHERIES
Strengthening of extension work	7.1	For the envisaged development of fisheries in the country, it has been noted that the extension is a week link and needs to be strengthened at Central, State, Union Territories and other agencies.
Extension support for transfer of technologies	7.2	The need for extension support was particularly identified in the transfer of proven technologies pertaining to maintenance of fishing crafts, fishing, preservation of catch and transportation, mechanical devices and electronic instruments in fisheries, production of food and feed developed from by-catch and offal from factories and commercial production and marketing of convenience food in India and abroad.
Assessment of energy input and cost benefit of viable technologies	7.3	Technologies developed in various fields of fisheries may be subjected to assessment for energy input and cost-benefits on pilot project basis and results released to the user.
Representation of scientists in fishery delegation	7.4	In all fishery delegations sponsored by the Government and other agencies adequate representation should be given to fishery scientists for providing effective technical expertise. □

Tunnelled Propulsion Saves Fuel



Propellor with cover

CIFT has designed and developed a tunnelled Propulsion for fishing boats, saving the fuel consumption considerably.

This has been successfully tried for small trawlers for the first time in India.

Many of the existing coastal trawlers are over powered. By adopting the tunnelled propulsion, the static thurst and boat speed can be increased. A lower horse power engine can be fitted with the trawlers with out sacrificing the performances, and thus the fuel consumption can be reduced.

At present trawling has become uneconomical due to the high fuel coast, and they remain idle. Sometimes, some of them are engaged as fish carriers for purse-seiners.

From the preleminary test it has been found that the increase in speed and static thrust are 22% and 11% respectively by the adoptation of tunnelled propulsions for a 32 ft wooden trawler. Further studies are being continued.

The estimated cost of the propulsion made out of the mild steel sheet is Rs. 1500/-

*

National Symposium on the Oceans

A three-day National symposium on the Oceans Relaties and Prospects will be conducted in December, 1983 at the School of International Studies, Jawaharlal Nehru University, New Delhi.

The objective of the symposium is to develop a sharper focus on the relevance of the oceanic environment to the national interests, and to create an atmosphere for initiating multi-disciplinary simultaneously but jointly, bring together the scientists belonging to different disciplines as well as the concerned bureaucracy in the country. The thrust would be to understand the man-environ-

Villagers Trained in Fish Processing

The Scientists of CIFT conducted a demonstration programme in preparation of fish wafers and pickles on April 27, 1983 at Kadungalloor, near Alwaye in Ernakulam Dist. Organised by the Kadungallur, Panchayat as part of its week-long festival, the demonstration programme attracted the local women who thronged in large numbers to get themselves trained the methods. The participants took keen interest in trying out some of the steps by themselves, for example, in spreading the slurry in trays, cooking, cutting and drying of the wafers. □

Preparation of fish wafers

---

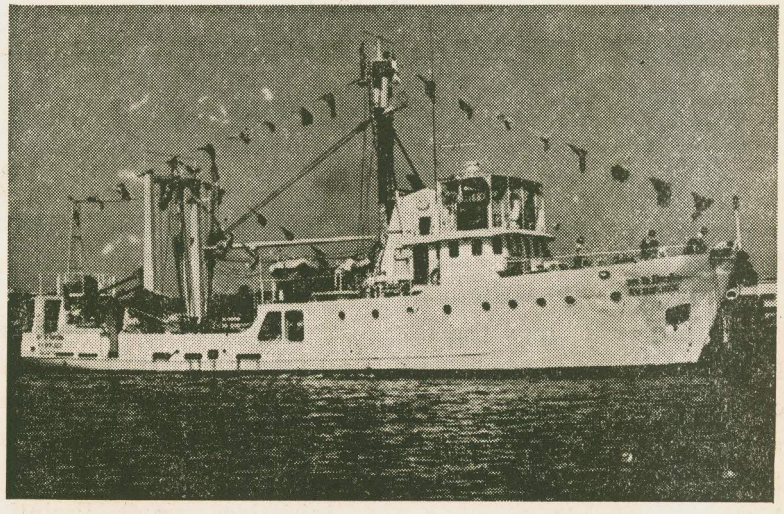
ment-development syndrome and the shape of the relationship in the near future, atleast up to the turn of the present country.

Sponsored by the Department of Ocean Development, Ministry of Agriculture (Fisheries Department), the University Grants Commission, the Department of Science and Technology, CSIR and the Planning Commission, are expected to join this venture.

Further correspondence with:
Dr. R. C. Sharma,
402, School of International Studies,
Jawaharlal Nehru University,
NEW DELHI–110 067

R. V. "SKIPJACK"

The Central Marine Fisheries Research Institute (CMFRI), Cochin of the I. C. A. R. has acquired a new Fishery Research vessel R. V. SKIPJACK built in India. R. V. Skipjack is a multipurpose steel vessel



Let's Talk it Over

Dr. M. Sakthivel, adviser (Agricultural Marine Products) Bruxelles

From my enquiry with a few leading fishing companies in Europe, I understand that the shrimps in chilled brine tank should not be stored for more than 3/4 days. What is your advice ?

CIFT : Chilled brine (-13°C or below) is used for freezing shrimp immediately after catch. After freezing, the material need not be kept in chilled brine as salt penetration is a serious problem, when fishes are held in chilled brine for longer periods. After freezing the prawns are to be removed to cold storage However, in refrigerated sea-water maintained at -1°C, the shrimp can be stored for 3 to 4 days in good condition without freezing.

Asst Director of Fisheries, Tuticorin

Would you furnish the names of some firms which can supply a pellatiser of our specifications, namely, 70 kg pelleting capacity within 3-4 hours ?

CIFT : The following firms, though they are manufacturers of engineering equipments, will help you.

1. M/s Batliboi & Co. Ltd; P. O. Box-190-A Forbes St. Fort, Bombay-1
2. M/s Gansons P. Ltd., P. B. 9113, Bombay-25 DD
3. M/s Kilco Machines, M. G. Road, Cochin-16
4. M/s Bhuvaneswar & Co. XXXI/504, M. G. Road, Cochin-11

M/s. Baroda Rayon Corporation Ltd., Bombay

We would like to know your latest specifications with regard to the construction of twines in 210, 840 and 1280 deniers.

CIFT Specification worked out by this Institute for Nylone twine for fishing purposes are given in the Indian Standard 4401-1976-1 spn. for Nylone fish net twines (revised), and it is available from the Indian Standards Institution, 9 Bahadur Shah Zafar Marg, New Delhi-110 001 or at its regional office 534, Sardar Vallabhbhai Patel Road, Bombay-400 007.

Shri R. Ambalakan, Thanjavur

What is the permitted level of moisture in fish meal ?

CIFT : The permitted level of moisture in fish meal is below 10%. If dry fishes are to be driectly pulverised to fish meal, the moisture level in the fish should be below 10%. □

---

equipped for trawling, purse-seining, acoustic surveys, hydrographic and marine biological work.

Designed by AUKRA BRUK A/S, Norway and built at the Garden Reach ship-builders and Engineers Ltd., Calcutta in 1982, the main dimensions and the engine of the vessel are as follows.

LOA	: 32.6M
LPP	: 28.0M
Beam	: 7.4M
Draugnt (Loaded)	: 3.31M
Depth (Mld)	: 3 7M
Speed	: 11 knots
Endurance	: 15 days
Main Engine	: GRW/ MAN R 8V-TLS 705 BHP at 1800 r.p.m. air starting with 1850 mm diameter controllable pitch propeller.

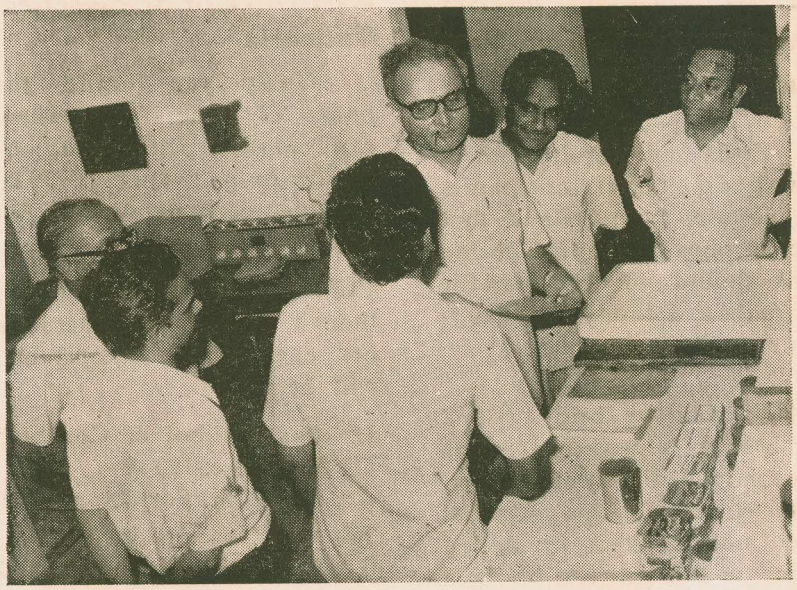
The vessel is provided with sophisticated diesel generator, hydraulic winches, refrigeration system (1°C), modern navigational aids, communication systems, acoustic instrumentations, (SIMRAD), laboratory and accommodation. □

Our Visitors

A team fishing experts of NORDOC Ltd., Newfoundland, Canada, Visited CIFT on April 14, 1983 The team had detailed discussions with the Institute Director and Scientists on different aspects of tuna fishing, preservation and processing of tuna meat.

A four-member Nigerian Fisheries experts who were on a study tour to India Visited CIFT On May 17, 1983. Led by Mr. Albaji D. D. Apanpa, Assistant Director, Federal Department of Fisheries, the team consisted of Mr. Tola Ojo, Mrs. E Opulath and Mrs. Titi Agbala Jobi, Chief Fisheries Officers.

Mr. Apanpa expressed the hope that the existing cooperation between India and Nigeria would grow from strength to strength. "We have been highly excited with the major achievements of this great Institute." Actually, the country (India) should be proud of CIFT, he said. □



Dr. Z. S. Quasim (fourth from left) Secretary, Department of Ocean Development, visited the Institute on June' 1983

Indian Standard : IS : 10199 - 1982

Acceptance tests and trials for fishing vessels.

This Indian Standard was adopted by the Indian Standards Institution after the draft finalised by the Fishing vessels Sectional Committee followed by the approval of the Marine, Cargo Movement and Packaging Division Council.

Tests and trials to ensure operational efficiency of the fishing vessels are very important before the same are accepted by their owners. The users of the standard are required to ensure compliance with statutory authorities/ classification societies, where applicable.

This standard covers tests and trials for fishing vessels of 15 M length overall (L. O. A.) and above and may also be used as a guideline for vessels below 15 m length overall.

Copies of this priced publication may be obtained from "Indian Standards Institution, Manak Bhavan, I Bahadur Shah Zafar Marg, New Delhi 110 002 or through their regional offices.

❋

Gleanings from Other Journals

Good Scope For Tuna Fishing

The Indian Exclusive Economic Zone off our coasts can yield up to 2.50 lakh tonnes of tuna per annum which if exported would bring in over 250 million, according to Mr. N. P. Singh, President of the Association of Indian Fishery Industries.

Speaking to newsmen in Bombay, Mr. Singh said though tuna is the single largest variety in the world fishmarket of 70 million tonnes no tuna is caught in India.

-Times of India-

Fish Markets

Although Chile is one of the world's top five fish exporting nations, the hundreds of small coastal fishing villages on Caletas that dots its coastline have netted few benefits.

Because they are isolated, the caletas have no real market for the sardines, mackerel, or hake they catch. Fishing for themselves provides food, but no income to maintain boats and equipment or improve livilihoods in the poor communities.

With aid from IRDC, the Fishery Development Institute in Santiago will try to watch the right product to the market to help the Caletas.

The demand could come from Chilis national school feeding programme, and the supply could come from Caletas equipped with the deboners, smokers, and dryers to produce suitable stable fish products.

The Institute will work with nutritionists and food technologists in the school programme, as well as engineers and villagers, to develop a small scale fish processing industry. Such research, if successful. will improve both the villagers' incomes and the children's nutrition.

-The IRDC Reports-

Prawn shells can check cotton fung

Scientist of the Cotton Technological Research laboratory, Bombay, have found that waste prawn shells could be used biologically control important soil-borne fungal pathogins which attack the cotton crop.

Scientists of this unit of the Indian Council of Agricultural Research have also found that these shells supply additional nutrients to the cotton plants providing an avenue for fruitfully utilising about 40,000 tonnes of prawn shell waste annually generated by the Seafood Canning Industry.

-Indian Express-

Dory Fishing Launched

The state owned Kerala Fisheries corporation embarked on a new scheme of "dory fishing."

It envisages hauling of 10 large country craft, each carrying 10 to 15 fishermen by purse-seine boats, to the deep sea up to 45 km from the shore. The purse-seine boat and the country craft will engage in fishing for two or three days after which the country craft will be hauled back to the shore.

-Indian Express-

CIFT Transfers, Postings etc.

Appointment

Smt. Chandrika C. Tank joined Veraval Research Centre as S. S. Grade 1.

Shri C. R. Gokulam joined Headquarters as junior Clerk.

Shri Bashir Bapu Pinjari joined Bombay Research Centre as driver.

Transfer

Shri T. Joseph Mathai, Scientist-S1 joined Burla Research Centre on transfer from Goa Research Centre.

Retirement

Shri K. M. Mathai, Senior Administrative Officer, retired from Headquarters. □

H. KRISHNA IYER

Shri H. Krishnan Iyer is now working as Scientist, S2 in the Extension, Information and Statistics Division of CIFT.

Born in February. 1939, Shri Krishnan Iyer had his early education in his native Village, Ambalapuzha. He took his B. Sc. from the S. D. College, Alleppy, and joined the University College, Trivandrum, for M. Sc. Shri Iyer took his M. Sc. degree in Statistics with first class and second rank from the University of Kerala in 1962.

Shri Iyer joined CIFT in January 1963 as Research Assistant in Statistics after serving the Reserve Bank of India as Field Investigation for a brief period. In 1967, he was promoted as Asst. Research Officer, and in 1976, he become scientist S-2. He was deputation to the National Institute of Occeanography, Goa, as Scientist-B for four years from 1973.

Shri Iyer was associated with a number of research Projects undertaken by CIFT, and actively associated with the design, analysis and interpretation of experimental data. Shri Iyer evolved a sampling plan for estimating the bactrial load in frozen shrimps. He has also designed an experiment for the rapid approximation of bacterial load in fishery products and analysed the data. He also worked out the average yield of different species of prawns used for freezing and canning, and estimated the weight-loss in frozen prawns during storage.

Shri Iyer has evaluated the economics involved in the operation of fishing craft, gear and connected accessories and conducted an All India Survey to estimate idle capacity of fish processing plants in the country, and suggested remedial measures for their active functioning. He has also constituted a taste panel for assessing the quality of frozen and canned prawns in the institute.

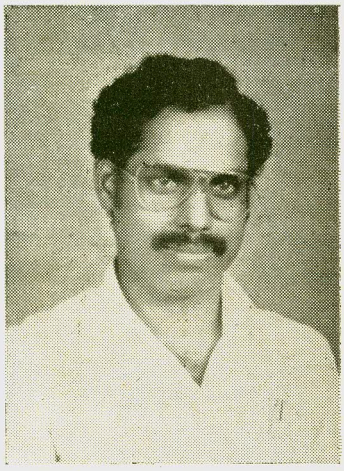
While working with N.I.O. Shri Iyer has developed a model for predicting the Zoo plant on abundance in a given enviroment.

To his credit Shri Iyer has 25 research papers and over a dozen popular articles.

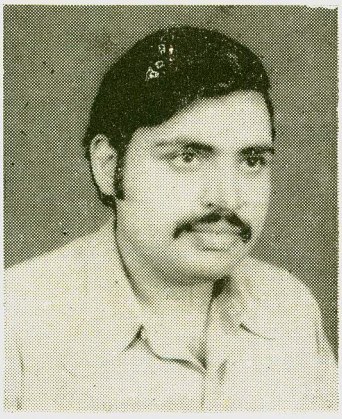
A life-member of the Society of Fisheries Technologists (India), Shri Iyer was the Asst. Editor of its journal, Fishery Technology. He is a guest lecturer in fishery statistics for the M. Sc. Industrial Fisheries of the Cochin University.

*

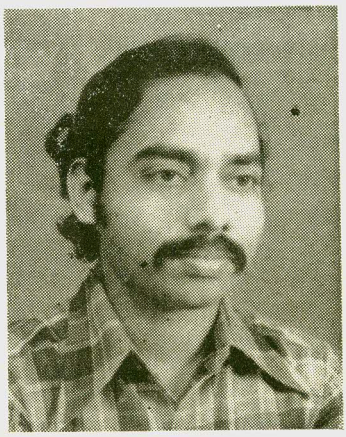
Doctorate Awarded



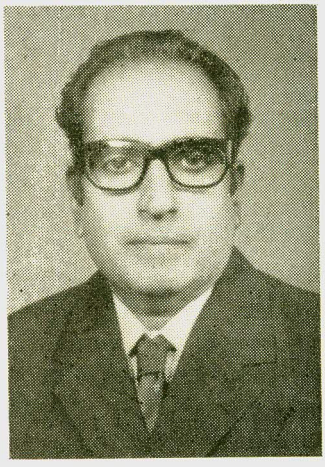
Shri M. K. Mukundan, Scientist–S1 of CIFT has been awarded the Ph. D. by the University of Cochin for his the sis, "Studies on Fish Lipasis". Shri Mukundan conducted his studies under the supervision of Dr. K. Gopakumar of CIFT.



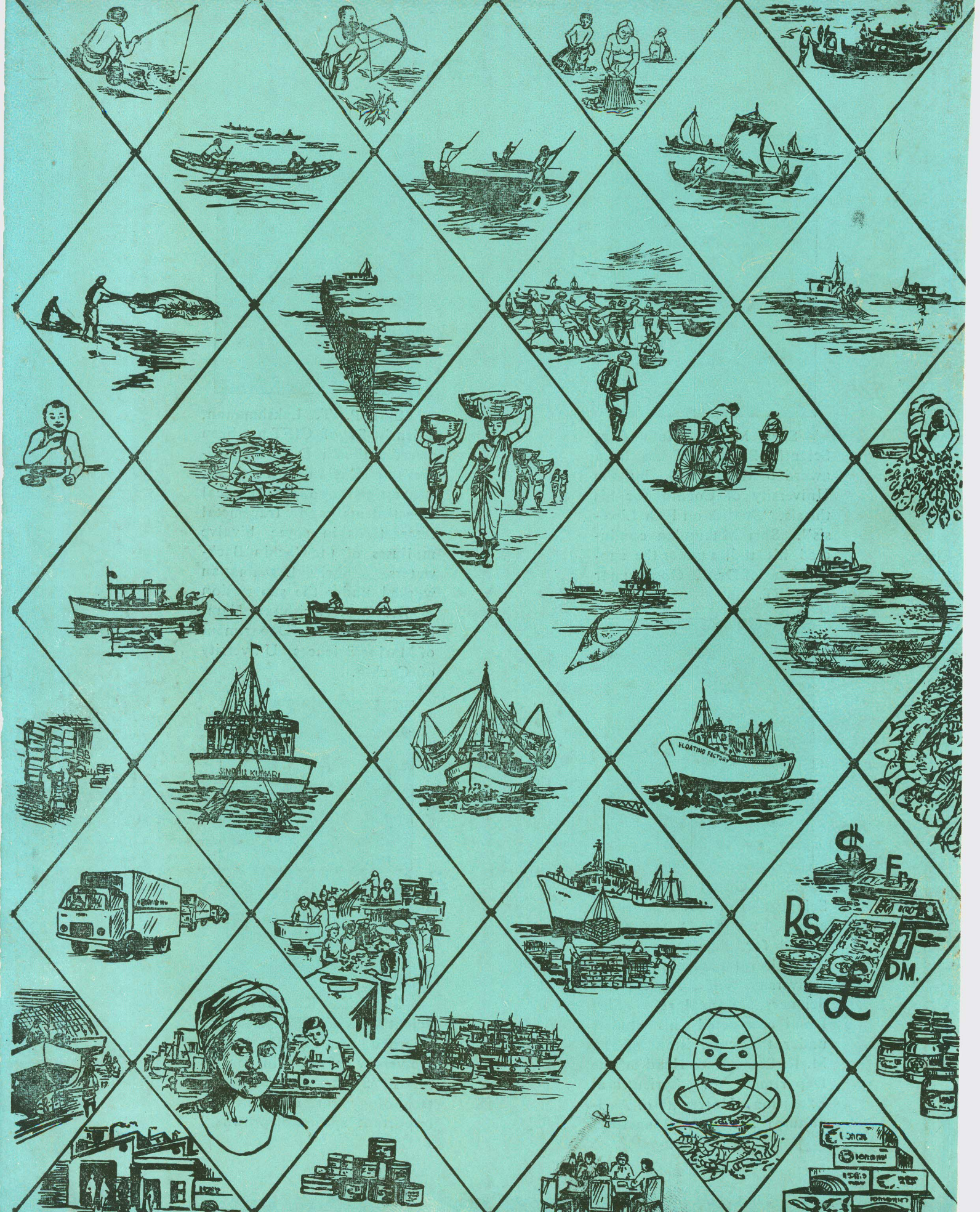
Shri Gopal Rao Desai, Scientist-S1 of CIFT has been awarded the Ph. D. and Gold Medal for highest merit in Agricultural Extension by the University of Agricultural Sciences, Bangalore. Shri Desai couducted his studies under the supervision of Dr. M. K Sethu Rao, Head of the Department of Agricultural Extension, University of Agricultural Sciences, Bangalore.



Shri P. T. Lakshmanan, Scientist-S1 of CIFT has been awarded the Ph D. by the University of Cochin for his thesis, "Investigations on the Chemical Constituents and tracemetal interactions in some bivalve molluses of the Cochin Backwaters. Shri Lakshmanan worked under the supervision of Dr. P. N. Krishnan Nambisan, Professor, Department of Marine Sciences, University of Cochin.



Shri T. K. Govindan, Scientist-S3 of CIFT, has been awarded the Ph. D. by the University of Cochin for his thesis, "Studies on the freezing technology of commercially important species of prawns."


SINDHU KUMARI
FLOATING FACTORY
$
Rs
£
DM.