

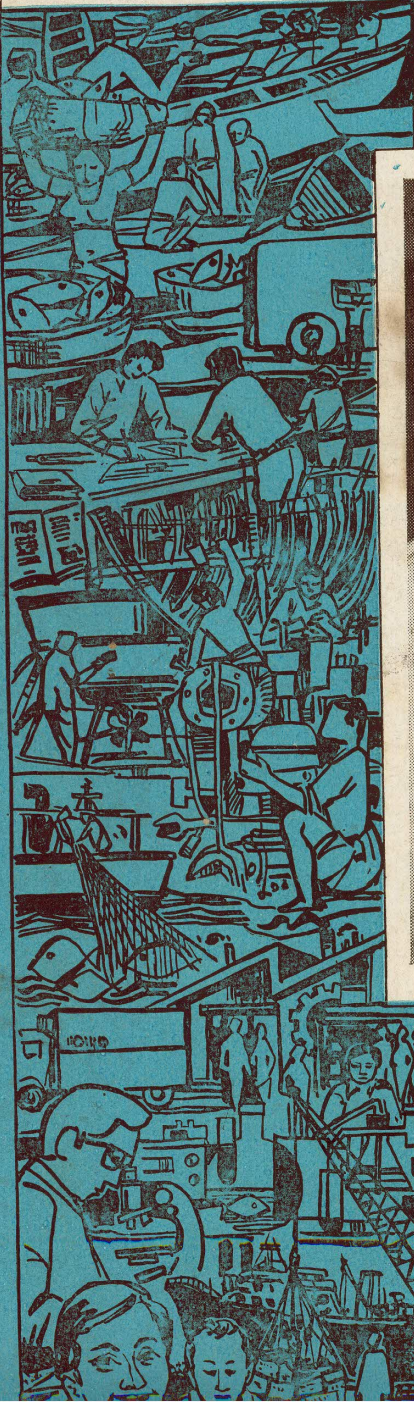


# Fish Technology newsletter

Vol. II

No. 9

JULY-SEPTEMBER 1980



CIFT Gear Scientist explaining a design drawing on trawl nets to the trainees under Lab-to-Land programme at Badagara (Report on page 5)

**CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY**

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# Foreword

## EDITORIAL COMMITTEE

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*Abbreviation:* Fishtech News

Fish Technology Newsletter issued every month is 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.

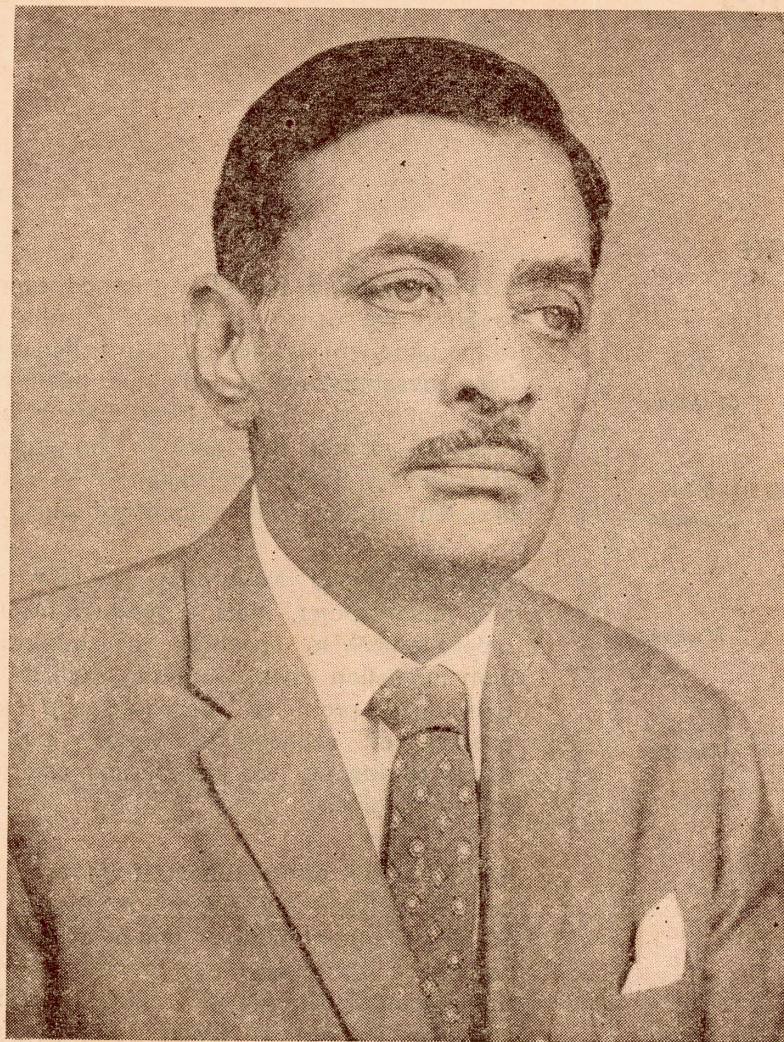
Fish Technology Newsletter does not owe allegiance to any manufacturer, patent, product or development agency unless otherwise specified. Its purpose is to open up a communication channel through which useful ideas can be exchanged, problems discussed and success shared. The process of exchanging views 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.

Editorial Committee.

## G. K. KURIYAN PASSES AWAY



Shri George K. Kuriyan, Director, Central Institute of Fisheries Technology, Cochin, died of heart attack at Delhi on August 4, 1980.

Shri Kuriyan (57), a well known Fisheries Technologist, had made immense contribution of providing improved designs of fishing crafts and gear to suit our waters.

As Assistant Director (Gear) it was Shri Kuriyan who took the initiative in establishing CIFT at Cochin in 1957. The craft and gear division of CIFT, the nucleus of

present CIFT, was organised by Shri Kuriyan. This Division's contributions to mechanisation in the field of fishing is immense. He was instrumental in developing and introducing new designs of fishing crafts of various sizes and new concepts of gear like long wing and bulged belly trawls. These are now known as standard CIFT designs.

Shri Kuriyan was the Director of CIFT since September 1974. Prior to this he had served as Senior Fishery Scientist cum-Head of the Division (Craft & Gear)

*One of the highlights of the Golden Jubilee celebrations of the Indian Council of Agricultural Research observed last year was a country-wide programme of transfer of technology known as the Lab-to-Land programme to which CIFT is also contributing in a humble way. In the previous issues we published reports on such programme held at Mangalore, Bombay, Kumarakom, Calicut, Kumbalam, Vaikom, Veraval, Madras, Cochin, Kakinada and Elathur. In this issue we present a report on programmes taken up at Badagara, Kerala.*

## Training in Trawl Gear Fabrication

With the mechanisation in fishing, trawl nets are in ever growing demand. At present, trawl gear fabrication is mainly done by those engaged in mechanised fishing only. This requires a certain amount of skill in reading the design drawing, shaping of different parts, joining parts and finally, the assembly of the different sections to a full sized trawl net.

and Senior Research Officer. Even before joining CIFT he had been responsible for introducing mechanisation programme in the Department of Fisheries of the erstwhile composite Madras state.

He was associated with a number of organisations like the Indian Standard Institution, Society of Fisheries Technologists etc. in various capacities.

He is survived by his wife and parents.

Local fishermen are conversant with the fabrication of traditional gear like gill nets, boat seines etc. where there may not be much of engineering principles involved. If a comprehensive idea and practical training is given to such people in the modern trawl gear fabrication, that will enable

them to increase their income and thereby improve their living conditions. With this in view, the Central Institute of Fisheries Technology organised a short term training programme of one month duration in July 1980 at the coastal village, Kuriyadi in Badagara.



Shri K. P. Unnikrishnan, Member of Parliament inaugurates the training programme

The fourth ICAR Regional Committee No. 8 was held on August 21, 1980 at Kerala Agricultural University, Vellanikkara.

This was one of the eight Regional Committees constituted by ICAR for the following purposes.

(1) to review the status of agricultural research and education in the region, and (2) to analyse, discuss in depth and make recommendations on

the location of specific problems of agriculture, animal husbandry, fisheries and forestry peculiar to Karnataka, Tamilnadu, Kerala, Union Territories of Pondicherry and Lakshadweep Islands.

Tamil Nadu Agriculture Minister, Shri K. Kalimuthu, Pondicherry Agriculture Minister, Shri V. M. C. Sivakumar, Karnataka Agriculture Minister, Shri K. Yenappa, ICAR Director General, Dr. O. P. Gautam, Vice Chancellors of Agricultural Uni-

versities, Directors of ICAR Institutes, Governing Body Members and State representatives attended the meeting.

Among other things, the committee recommended to formulate a unified policy on agricultural education.

CIFT Director is the secretary of Regional Committee No. 8.

Eighty nine fisherwomen of that locality attended the training programme. They could acquaint themselves with the various aspects of trawl gear fabrication.

In addition to this they were given an over all idea of different sizes and types of trawl nets. They will be able to cater to the needs of the evergrowing demand of trawl nets and get gainful employment.

The training programme was inaugurated by Shri K P. Unnikrishnan, Member of Parliament, on July 12, 1980 at Government Fisheries L. P. School, Kuriyadi. Shri Unnikrishnan asked the fishermen community to fully utilize the benefits of the research achievements in fishery technology for the betterment of their living conditions.



The trainees actively participating in the fabrication of a modern trawl gear

# IMPROVED FISHING GEAR

## Trawl Nets

As a result of constant and continuous studies so far made at the CIFT on marine fishing gear and methods, better returns from the inshore fishing grounds in the form of increased fin-fish catch have been recorded. The new gear design concepts are (1) Bulged belly trawl (2) Six-seam trawl (3) High opening trawl, (4) large mesh trawl, (5) Parallel twin-body trawl, (6) Three panel double trawl and (7) Equal panel mid-water trawl.

## Purse Seine Net

A small purse-seine net of 260 M x 28 M was designed, fabricated and experimental fishing conducted from a 9.75 M OAL mechanized vessel with encouraging results.

The new design of net can hold about 3 to 4 tons of fish. The weight of the gear with all accessories comes to only 550 to 600 kg. and whose cost works out to be Rs. 75,000 to 80,000/-. This gear can be operated from an ordinary shrimper

trawler without any major change in the existing deck arrangements during the peak mackerel and sardine seasons.

## Gill Nets

Modified gill nets made of Nylon 210 D/2/3 in 50 mm and 60 mm bar meshes and Nylon 210 D/3/3 in 70 mm bar meshes landed good quality fish like Hilsa, Pomfret, Seer, Silverbar fish and the like off Veraval (Gujarat) coast. Coloured gill nets exhibited better catching efficiency.

Kozhikode District Collector, Shri K. M. Balakrishnan presided over the function. Badagara Municipal Chairman, Shri K. Reghunath, Chorode Panchayat President, Shri M. Dasan and Chombola Block Development Officer, Shri C. Ebrahim, also spoke on the occasion.

CIFT Director, Shri G. K. Kuriyan, welcomed the gathering and Shri T. S. Unnikrishnan Nair, Scientist in-charge, Calicut Research Centre of C. I. F. T. expressed the vote of thanks.



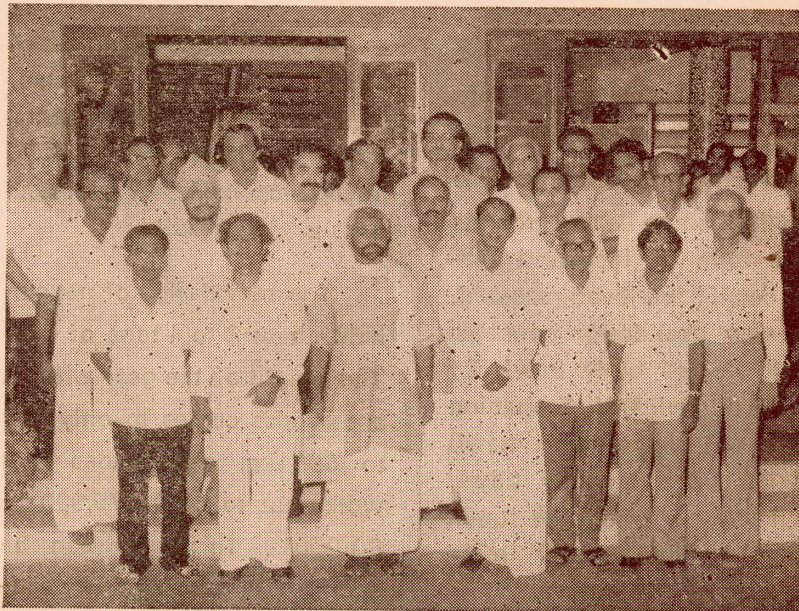
Shri R. Baiasubramanian, Head of Division, Craft & Gear, CIFT, distributes proficiency certificates

# MEMBERS OF PARLIAMENT VISIT CIFT

A delegation of Members of Parliament from different states visited CIFT on September 1, 1980. This was part of a study tour on various Agricultural Research Institutions and projects located in south India.

Shri M. R Nair, Director of CIFT, received the Members of Parliament and briefed them on various research activities of CIFT. While explaining the accomplishments of the fisheries scientists of the Institute, Shri Nair said the new technologies developed at CIFT have helped the fish farmers of the country in general and Kerala and other neighbouring states in particular.

Small and marginal fish farmers have been immensely benefited by the new technologies developed at the Institute.



Members of Parliament with CIFT Director and staff

Expressing their appreciation of the work being done at the Institute, the visiting Members

of Parliament said our scientists were among the best in the world and they were convinced that with the zeal and dedication with which our scientists are working, despite several odds against them, no agricultural problem in particular should remain unsolved.

The Parliamentary delegation, however, felt the results of these good works were not reaching the fishermen community as speedily and effectively as it should have been.

Members of Parliament which included Shri Mukund Mandal, Shri Ras Behari, Shri Hukum Deo Narain, Shri George Joseph Mundakal, Shri Chatturbuj and Shri Xavier Arrakkal emphasised the urgent need for developing technologies best suited to the small and marginal fish farmers.



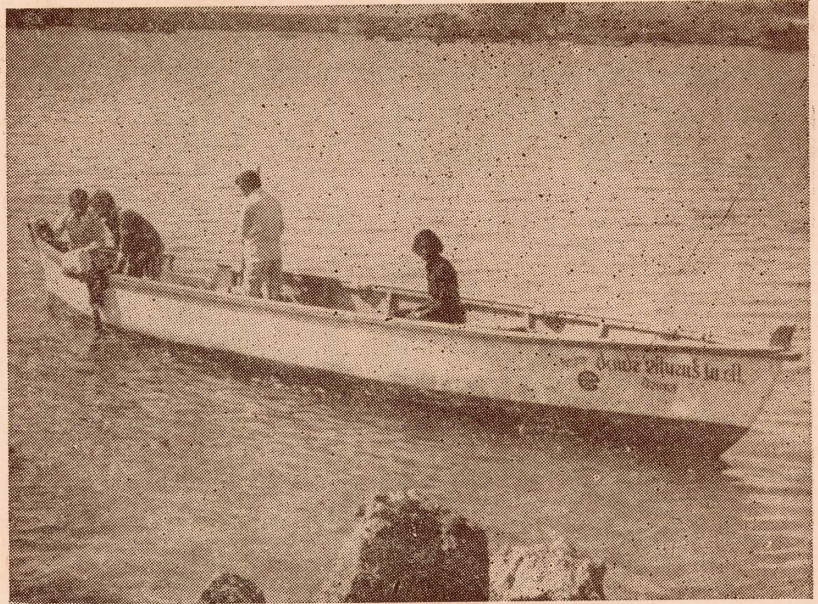
ICAR Director General Dr. O. P. Gautam, during his visit to CIFT



# STEEL TRAWLERS FROM GOA SHIPYARD

Goa Shipyard is now in a position to offer various types of fishing vessels from 15 to 45 metres in length, with as much sophistication in terms of machinery and equipment as desired by the customers.

Construction of eight to twelve trawlers can be undertaken and delivered annually. Goa Shipyard already has designs and drawings for undertaking the construction of trawlers / fishing vessels for following over-all lengths—17.5 M trawlers; 18.6 M fishing vessels; 21.6 M fishing vessels; 23 M trawlers; 26 M trawlers; 22 M fishing vessels; 33.3 M fishing vessels and 36.5 M fishing vessels.



F. R. P. Canoe with outboard engine

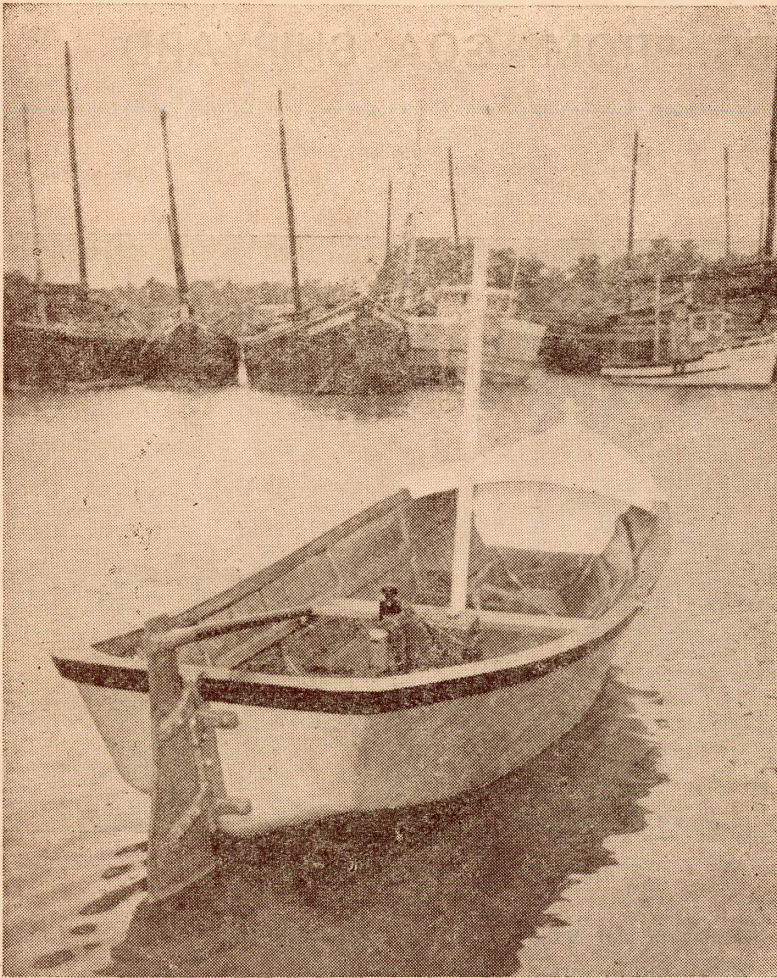
Moreover, in view of the Norwegian Aid Programme, Goa Shipyard enjoys the facilities of

obtaining the necessary foreign design and technical assistance.

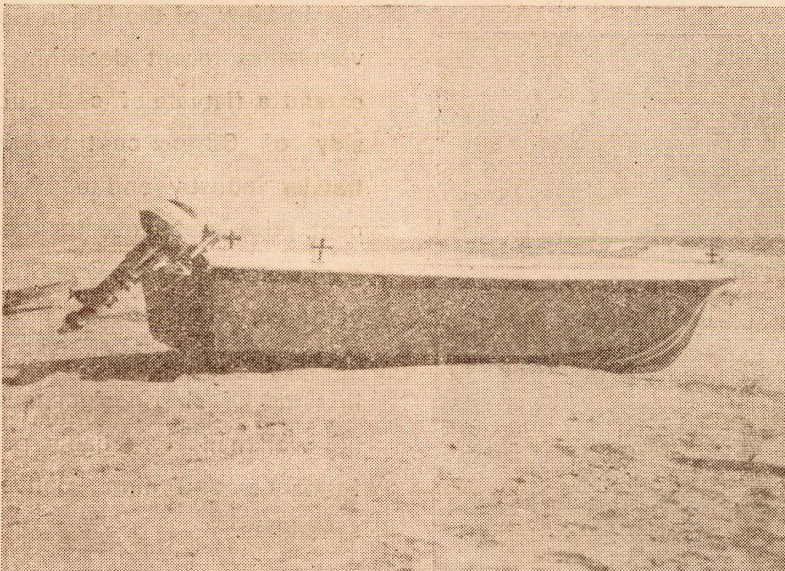


F. R. P. Canoe with sail

In view of the Union Government's recent decision to extend a flat rate of cash subsidy of 33 per cent to the trawler industry and a 10 per cent price preference for indigenous trawler units, Goa Shipyard is eager to offer her expertise to potential customers in terms of ship designs, quality-workmanship, reliable performance and firm delivery schedules.



F. R. P. Boat with in-board engine



F. R. P. Boat with out-board engine

## CIFT Appointments, Promotions, Transfers.

### Appointments

1. Shri Chaitanya Kisan-Tech-  
nician-1 (Jr. Lab. Asst) at  
Burla Research Centre.
2. Shri V. P. Reghunathan-  
Technician-1 (Boilerman)  
at Headquarters.
3. Shri Mohanlal Mangalji  
Damodara - Junior Clerk at  
Veraval Research Centre.
4. Shri O. K. Xavier - Driver  
(Technician-1) at Bombay  
Research Centre.
5. Shri K. T. Abubacker. Accou-  
nts Officer at Headquarters.
6. Shri Kana Jina Chandra-  
S. S. G. I. at Veraval Re-  
search Centre.

### Promotions

1. Smt. T. N. Ambujakshi  
Amma - Assistant-Superin-  
tendent at Headquarters.
2. Smt. Nafeesa Ali, Senior  
Clerk - Assistant at Head-  
quarters.
3. Shri Y. W. Mhadgut, Junior  
Clerk-Senior Clerk at Bom-  
bay Research Centre.

### Transfers

1. Shri M. P. Chandrasekharan,  
Supdt. transferred to CMFRI,  
Cochin, on appointment as  
Asst Accounts Officer.
2. Shri P. K. Thomas transferred  
from Central Arid Zone Re-  
search Institute Jodhpur  
joined Headquarters as  
Junior Clerk.

### Retirement

Shri P. V. Channy, Techni-  
cian-2 Voluntarily from  
Service.

# LET'S TALK IT OVER

## The Development Manager (Agl), State Bank of India, Bhubaneswar

We would like to know whether Marine plywood can be used as stiffener between the layers of Fibreglass. Will it in any way weaken the construction of the Trawler's Hull?

CIFT: Hull stiffening is an approved method of construction of FRP Boats. To ensure rigidity and stiffness the hull is to be provided with an efficient system of side and bottom framing in conjunction with longitudinal girders and transverse bulk heads. In boats measuring below 12 meters in length, sufficient stiffening may be provided by the internal assemblies like bulk heads, floor boards, tanks etc. and only an occasional transverse or longitudinal stiffener may be necessary.

As core materials, timber or solid formed plastic, can be used and it should bond firmly to the skin.

The hull of a boat may also be moulded single skin laminate, sandwich construction of thin laminates with a low density core or some com-

binations of these types adhering to rules regarding the thickness of the core material, the weight of the shell laminate and spacing of the stiffening members.

If marine ply-wood has been used in the above principles, no weakening of the entire structure will result.

## The Block Development Officer, Mogalthur, Andhra Pradesh.

Whom we have to approach to get a temperature salinity meter developed by CIFT?

CIFT: The temperature salinity meter developed by CIFT has been commercialised through National Research Development Corporation of India, New Delhi, by M/s Saraff Electro-Oceanic Appliances, Saraff House, Willingdon Island, Cochin-682003, who have been entrusted with the fabrication and supply of the item. You may, therefore, please contact the firm direct for more details.

## The Andhra Pradesh State Agro Industries Corporation Limited, Hyderabad.

We came to know that your Institute has developed a

new nutritive beverage based on fish protein hydrolysates. More details please.

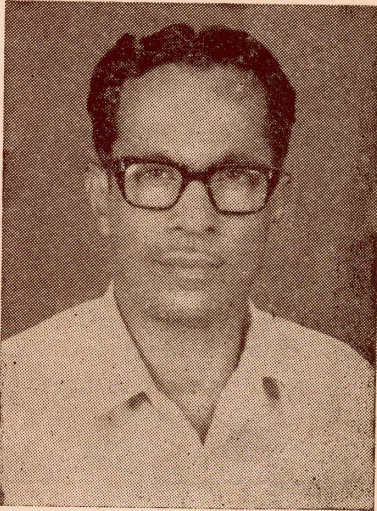
CIFT: Yes, we have developed a process for preparing beverage out of fish hydrolysate. Comminuted low cost fish is hydrolysed and the hydrolysate is mixed with Cocoa, Malt and sugar. The product resembles "Bournvita" or "Ovaltine" and may be used in the same way as the above products are used.

## M/s. United Carbon India Ltd., Bombay.

Why anti-oxidants are not used in the manufacture of Fish Meal in India?

CIFT: We are not in a position to give concrete reasons as to why anti-oxidants like B4 A are not generally used in the manufacture of Fish Meal in India. Probably it might be because, there is really no need for it. There is, however, no objection in using it in fish meals and we would even recommend it. There might also be a few processors who are actually using it in the manufacture of the meal.

## P. APPUKUTTA PANICKER



Shri P. Appukutta Panicker, Scientist-S2, is a scientist in the Gear Division of the Central Institute of Fisheries Technology, Cochin. Born on January 26, 1934, at Nettur, Ernakulam Dist, Kerala, he had his early education from Government High School, Mangayil, Maradu. He had his college education in the Sacred Hearts College, Thevara, affiliated to Madras University and passed the B. Sc. degree in Zoology creditably in 1955. After graduation Shri Panicker continued his Post-graduate studies in Zoology with specialisation in Fish & Fisheries in the Birla College of Science and Commerce, Pillani, Rajasthan University.

After a brief period as Survey Asst. in Fisheries in the Andaman & Nicobar Islands, Shri Panicker joined the Central Institute of Fisheries Technology in 1960, as Research Asst. in the Craft & Gear Wing. On his promotion to Asst. Research Officer (Craft & Gear) in 1964 and subsequently as Research Officer in 1965 by the UPSC he was posted at the newly organised Research Centre at Goa to take up investigations on fishing gear technology. He was solely responsible for the organisation of the Goa unit. Shri Panicker has also served as the Head of Division of Craft & Gear at Veraval Research Centre during 1970-75. Thereafter he was transferred to Headquarters at Cochin in 1975.

Shri Panicker is one of the pioneers in the studies on the selectivity of fishing gear and has evolved suitable mesh sizes and designs to avoid depletion of natural stocks of prawns, hilsa, and pomfret and developed troll lines for pelagic and predatory fishes. He is a specialist in shrimp trawling and has evolved and standardised indi-

genous methods for double rig and twin rig shrimp trawling from medium classes of vessels and also parallel twin trawls for shrimping.

During the last five years he has been mainly engaged in evolving suitable purse seines for small mechanised vessels and country crafts. Shri Panicker is a member of task force for the Lab-to-Land programme of the Institute and has taken active interest and leadership in organising and participating in training programmes for artisanal fishermen in the fabrication of modern fishing gear. Now he has been selected for an advanced post graduate diploma course in fisheries management at Grimsby College of Technology, U.K. under the Colombo Plan for one year. He has served as the member of the Central Advisory Committee on Exploratory Survey on Marine Fisheries of the Government of India. He is one of the founder members of the Society of Fisheries Technologists, India and also a member of its Executive Committee.

## CIFT is at your Service

*It transfers Fishery Technology by way of:*

- ◆ Demonstrations of Fishing and Fish Processing techniques evolved by it
- ◆ Answering Technical queries
- ◆ Supplying project reports and design drawings
- ◆ Training courses of fishing and fish processing

*Please contact:*

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