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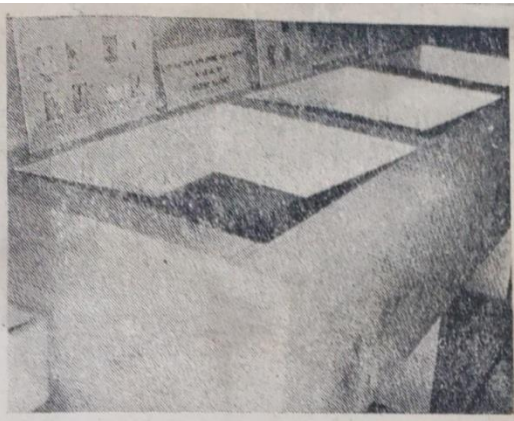

The rearing of prawns at the Prawn Culture Laboratory at Narakkal, Cochin, is carried on in tanks inside (above) and in experimental ponds outside (right).

Scientific Rearing of Prawns

From Our Cochin Correspondent

Kerala with many "firsts" to its credit has added one more to the list. It is the Prawn Culture Laboratory started by the Central Marine Fisheries Research Institute (CMFRI) at Narakkal, an island off Cochin.

Inaugurated by Mr. Shah Nawaz Khan, Union Minister of State for Agriculture and Irrigation, it forms part of an ad hoc scheme on marine prawn culture sanctioned by the Indian Council for Agricultural Research, involving an investment of Rs. 5.4 lakhs. The Kerala Government has made available four hectares of culture ponds at the place. According to Mr. Shah Nawaz the inauguration of the first "field laboratory" in the country had opened a new chapter in the country's prawn-culture programme.

The development of prawn fisheries in India had been so rapid that it has become the world's foremost "capture fishery" for prawns during the past 15 years. Export earnings from prawn and prawn products increased from Rs. 3 crores in 1960 to over Rs. 75 crores in 1974.

In terms of weight the total catch in India during the period rose from 68,000 to 1,67,000 tonnes. This phenomenal development was no doubt the result of increased exploitation of the resources brought out by the national development plans and an enterprising industry.

The CMFRI had been carrying out investigations in a comprehensive way, covering all aspects of "capture fisheries" for prawns for maintaining catches at a sustained level. However, "capture fisheries" had their own limitations and certain disturbing tendencies such as fall in catch per unit effort in some areas in the recent years had been causing concern.

This led the CMFRI to undertake more intensified work on prawns stock, to evolve suitable management policies, look out for new resources from new grounds and methods to augment natural production through culture practices.

The Institute carried out intensive research on techniques of culturing prawns in low-lying coastal and estuarine areas. These researches had shown that the traditional practice of prawn culture in paddy fields in the "Kharland" regions of central Kerala could be improved by adopting scientific methods which would increase production and income severalfold.

The traditional methods of prawn culture in paddy fields which had been in vogue for a long time gave a low yield of about 500 to 1,000 kg. per hectare a year. It was possible to carry out selective stocking, using the costly variety of prawn, namely, Naaran (Penaeus indicus) in greater percentage in the fields by eliminating the smaller low-priced variety—Telli (Metapenaeus dobsoni).

The Institute had also been carrying out a series of experiments on the artificial rearing of marine prawns of commercial importance, collection of prawn seed on a large scale and culturing these to harvestable size.

According to Dr. G. Silas, CMFRI Director, the objective of the field laboratory in Narakkal is to carry out the field experiments to determine the necessary work details so as to introduce scientific prawn-farming in "Kharland" regions.

The work includes production of prawn seeds of desired species in large quantities, determination of optimum intensity of stocking rate per given area, food and feeding of the prawns stocked, development of cheap, artificial feed for obtaining maximum yield in the shortest time possible, and rearing techniques to be followed under different environmental conditois.

The implementation of the scheme was started in January 1974 by a team headed by Mr. K. H. Mahomed, fisheries scientist and head of the section of the Crustacean Fisheries of CMFRI as principal investigator. During the last one and half years, the team has located large concentration of seed prawns belonging to the "Naaran" variety in the surf waters of Narakkal and adjacent areas. The method of collection has been perfected and over a million postlarvae of "Naaran" are collected every day during the season.

Dr. Silas said that the outcome of the scheme could eventually bring in vast stretches of "Kharlands" and "Kazalands" of Karnataka, Goa and Maharashtra into a system of alternate harvesting of prawn and paddy.

Such a system would greatly improve the rural economy of the "Kharland" areas as they were at present utilised only for a single crop of paddy of a short duration.

Located in rural settings in the midst of traditional paddy-cum-prawn culture areas, the Laboratory which has six air conditioned rooms is equipped with modern facilities for carrying on experiments in rearing of prawns, culture, etc. It also provides accommodation for visiting scientists to undertake round-the-clock observations.

'Sea wealth should be fully exploited'

By Our Staff Reporter

Union Minister for Agriculture and Irrigation Jagjivan Ram has called for a scientific assessment of the country's fisheries resources and utilisation of modern technology for developing its fishery industry.

Mr. Jagjivan Ram was formally inaugurating the new building complex of the Central Institute of Fisheries Technology, put up in a 4.5-acre plot, taken on lease from the Cochin Port Trust on the Wellingdon Island, close to the Mattancherry Bridge at a cost of Rs. 58 lakhs.

Mr. Ram said recent surveys along our coasts have established fairly substantial untapped fisheries resources. The recent fourth session of the United Nations Conference on Law of Seas had revealed a near consensus for a 200-mile exclusive economic-cum-fishery zone for coastal nations for exploring, exploiting and utilising the living and non-living resources.

"This has placed on coastal nations like ours a tremendous responsibility to manage scientifically the resources of the sea within this area," he pointed.

Presiding over the function, Chief Minister C. Achutha Menon pointed out that development of fisheries and fisheries technology was very important to Kerala.

Describing Cochin as the most important fisheries research centre in the country, he said it was necessary to house the other research institutions in Cochin also in their own buildings.

Mr. Menon said Kerala had contributed not a little to the exports of marine products but it still lagged behind in fishing facilities like fishing harbours. Even the work on hand for two fishing harbours in the State were not progressing well because of lack of funds, he said and added that more funds had to be found to provide these facilities with the requisite speed.

Both the Union Minister and Chief Minister congratulated the scientists in the institute for the excellent work they had done in advancing the country's fisheries technology.

The Union Minister said the fish industry was becoming more and more mechanised especially off-shore and deep-sea fishing. They should, therefore, develop mechanical fish accessories, instruments for testing and other equipment suitable for the conditions in the country.

He felt confident that the scientists of the institute who won awards for their work on the design of several pieces of equipment, would take up the new challenges in an enthusiastic manner.

Mr. Ram pointed out that one area of research which seemed to have got relatively less attention was the development of suitable

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'Fisheries has a bright future'

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crafts and gears for reservoir and river fisheries. Along the major river systems of north India like the Brahmaputra and Kosi, fishing was done quite frequently in turbulent rivers under precarious conditions.

He told the scientists they would make an important contribution if they were able to develop improved crafts and gears for enabling fishing in turbulent rivers.

Visualising a great future for fisheries industry, the Union Minister said, they were slowly turning their attention from just capture of fishes to culturing fishes.

He said in the past our fisheries institutes did not have proper extension wings. He had asked ICAR to ensure that all our institutes had appropriate extention services. At his suggestion the Central Soil Salinity Research Institute at Karnal had established a consultancy unit.

"I feel that this institute should also establish a consultancy unit so as to render appropriate and timely advice and assistance to the fisheries industry as well as fishermen," he added.

Dr. G. K. Kurian, Director, CIFT, presented a report. Fisheries Minister Avukaderkutty Naha released a souvenir brought out by the CIFT Recreation Club.

Mr. W. H. L. Allsopp, Associate Director (fisheries), International Development Research Centre, who offered felicitations, said the IDRC would co-operate with India in making use of the inventions of the CIFT in various parts of the country.

The Chief Minister left the meeting immediately after his presidential address as he had to be in the State capital in the evening. Home Minister K. Karunakaran took the chair thereafter. The meeting began three hours behind schedule as the Union Minister had another engagement near Trichur.

Earlier, Dr. Swaminathan Director-General of ICAR welcomed the gathering.