# Fish technology newsletter

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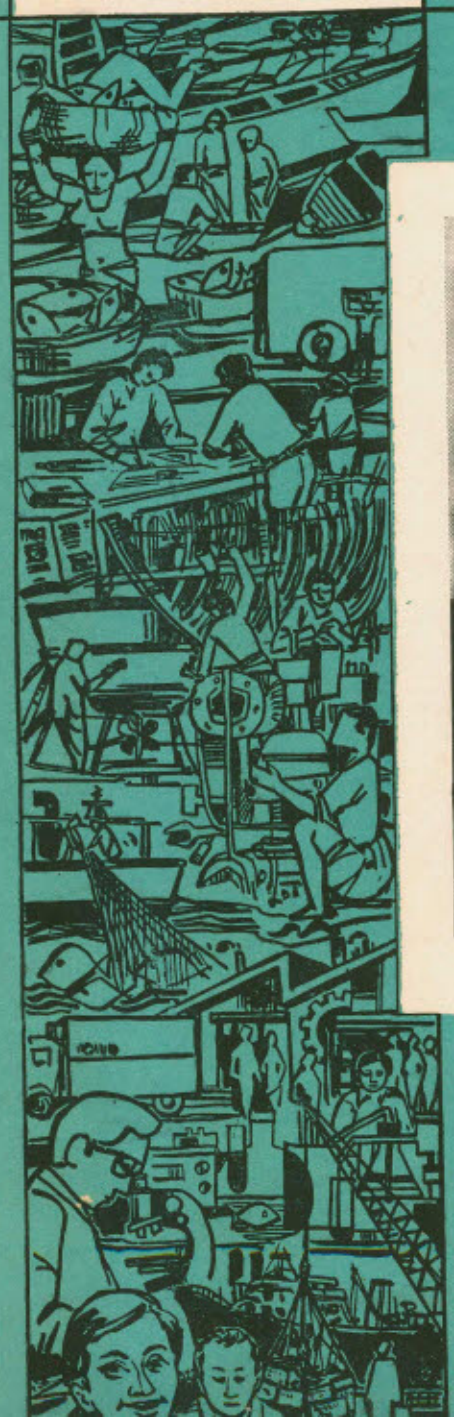


The ICAR Pavilion at the Cochin '84 Exhibition

CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY
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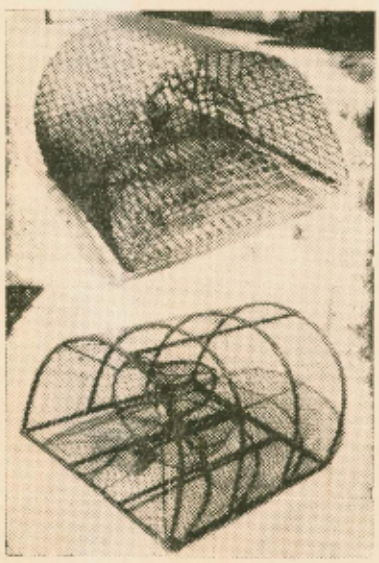
# LOBSTER FISHING WITH MODERN TRAPS – A VIABILITY REPORT

Spiny lobsters constitute an important item of marine products exported from India fetching sizeable foreign exchange. South West coast of India, especially Trivandrum district of Kerala and Kanyakumari district of TamilNadu, are traditionally important lobster fishing areas providing employment to hundreds of traditional fishermen. Lobster trap fishermen are one of the most neglected and backward sections among traditional fishermen. Potential lobster resource of this stretch is estimated to be around 500 tonnes per annum. But the present landing is only a small percentage of this There are about 15 fishing villages in the stretch of coast line between Vizhinjam and Kanyakumari where, on an average, 30 fishermen families are exclusively dependent on trap fishing for lobsters as a means of livelihood.

A good catch



The CIFT standardised lobster trap

Trap is the conventional fishing gear employed for exploiting lobsters The traditional trap used for lobster fishing in this area is very crude and inefficient, made up of palmyra leaf stalk fibres or date palm leaf stalks These are subjected to quick decay and last only for 2 to 4 weeks. They are very fragile and need heavy ballast to sink and cannot stand rough handling and sea conditions. Often trap as well as catch are lost in the sea. Due to these reasons, the present earnings from lobster trap fishing are meagre.

A modern lobster trap has been developed by Central Institute of Fisheries Technology, Cochin, overcoming the drawbacks associated with traditional traps This was extensively tried and experimented, keeping a traditional trap as control from different fishing centres with great success. Convinced by these results, MPEDA, in collaboration with Departments of Fisheries Tamil Nadu and Kerala, fabricated 200 modern lobster traps under CIFT's technical supervision. Traps were distributed to genuine lobster fishermen on subsidy-cum-loan basis Sixty such traps were distributed to 20 fishermen at the rate of 3 traps per head at Vizhinjam and Chovara in Trivandrum district and the rest at Enayam and Kadiapatnam in Kanyakumari district. These

traps were in operation from 1981 to 83. As a follow-up action, an impact study was carried out in these centres to evaluate the acceptance of modern trap technology by fishermen It was found to be well received An abstract of the catch data monitored on the performances of 60 traps that were in operation at Vizhinjam and Chovara is given below.

**Particulars of Lobster landings by modern lobster Traps at Vizhinjam and Chovara**

| | Total number of lobsters landed by 60 traps. | Approximate weight of the catch @ 125 gm per specimen. | Average catch by one fisherman from 3 traps. |
|---|---|---|---|
| Sep. '83 | 388 Nos. | 48.50 Kg. | 2.40Kg. |
| Oct. '83 | 869 ,, | 108.62 ,, | 5.40 ,, |
| Nov. '83 | 793 ,, | 99.10 ,, | 4.95 ,, |
| Dec. '83 | 2558 ,, | 319.75 ,, | 15.98 ,, |
| Jan. '84 | 2849 ,, | 356.12 ,, | 17.80 ,, |
| Feb. '84 | 3712 ,, | 464.00 ,, | 23.20 ,, |
| Mar. '84 | 2909 ,, | 362.62 ,, | 18.20 ,, |
| April '84 | 951 ,, | 118 87 ,, | 5.90 ,, |
| Total | 15029 Nos. | 1877.58 Kg. | |
| Average catch per trap for a season of 8 months | 250 Nos. | 31:30 Kg. | |

The above table clearly shows the profitability of operating modern lobster traps. The survey revealed that all the fishermen were convinced of the efficiency and advantages of the modern traps, over the traditional one. The present trend is to completely replace the traditional traps with the modern trap developed by CIFT. A four logged catamaran operated by 2 to 3 fishermen constitute one unit and on an average they operate 20 traps at a time. If half of the existing gear is to be replaced by the modern one, to start with, a unit may require at least 10 traps. At the rate of Rs. 300/- per trap this calls for an investment of Rs. 3000/- per unit. Based on a detailed case study, the following cost benefit aspects are brought out:

INVESTMENT

1. Cost of 10 CIFT standard lobster traps @ Rs. 300/- each (If the average life of a trap is taken as three years, yearly investment on 10 traps works out to only Rs. 1000/-) } Rs. 3000/-

2. OPERATIONAL EXPENDITURE

a Cost of bait, repairs and maintenance for one season Rs. 1000/-

b Expenditure towards repayment of 1/3 cost of the traps and interest on loan Rs. 1300/-

Total Rs. 2300/-

3. RECEIPTS

| | | |
|---|---|---|
| i) | Projected average catch per trap per season (derived from the table) | 31.30 Kg. |
| ii) | Expected landings from total number of 10 traps per year | 313.00 Kg. |
| iii) | Value realised by sale of 313.00 Kg. of lobsters at an average rate of Rs.50/- per Kg. | Rs. 15650.00 |
| iv) | Net earnings | Rs. 15650.00 |
| | | 2300 00 — |
| | | 13350 00 |

From the above statement, it is evident that a fishing unit operating 10 CIFT lobster traps is assured of increased lobster landings and enhanced earnings after meeting all the connected expenditures. The operators can have the confidence of repaying the loan and can become self supporting thereafter. To-day, because of close contacts-cum-discussions between Scientists, Extension workers and the traditional lobster fishermen, assisted by the subsidised initial supply of CIFT traps through the Marine Products Export Development Authority, and the successful operation of the scheme, the situation has gradually brightened up.

Having crossed the difficult barrier of imparting the technical know-how and the successful transfer of the proven technology, it is now realised that a formidable problem is the innate poverty of the fishermen community. They need adequate financial support especially towards the initial investments. Since the cost benefit aspects of the present scheme of popularising CIFT lobster traps has been well established with encouraging results, financing agencies should now come forward by extending liberal loans to the poor fishermen among whom this new idea has been well percolated. CIFT can always extend its technical guidance.

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