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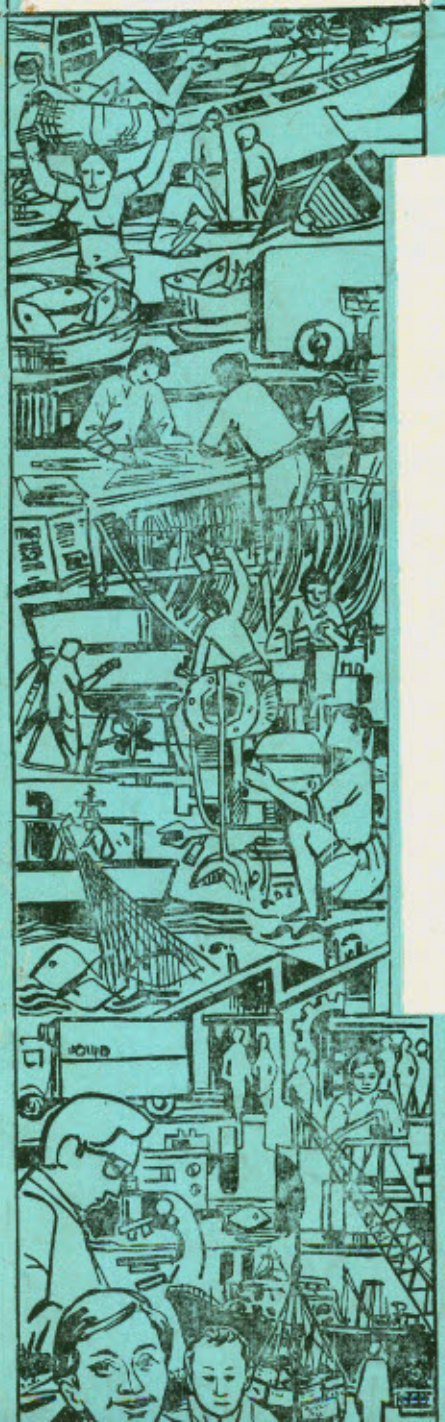

Training course for Fish Processing Technologists. Report on Page 4

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Comparative Economic Efficiency of Fishing Trawlers of 9.82 m (32 ft) and 11 m (36 ft)* OAL along Kerala Coast

Of the mechanised fishing fleet of Kerala, a good portion is constituted by small and medium sized trawlers built to the designs prepared by the Central Institute of Fisheries Technology, Cochin. In view of the large number of such trawlers in operation along the Kerala Coast, it was found desirable to appraise their economic efficiency based on the data from actual fishing operations. Fifty trawlers each of 9 82 m (32 ft) and 11 m (36 ft) O A L were selected for gathering the required data. The data collected include total prawn catch, fish catch,total receipts,expenditure on fuel. salaries. and shares, commissions, repairs and maintenance costs, depreci-

ation, insurance and miscellaneous expenses.

A mathematical model for working out the economics of operation of the two trawler sizes were developed and the percentage profit on total expenditure were worked out for both the trawlers by taking into account 225 fishing trips in a year and they are presented in Table I It is evident from the Table that the profitability of a 9.82 m (32 ft) is better than the 11 m (36 ft) fishing boat.

Table II gives the percentage profit in relation to the number of days of operation of 9.82m and 11 m trawlers. If a 9.82m trawler performs 225 fishing trips in a year, the estimated profit it would have made, is 27.08%. As the number of fishing trips is limited to 200, the profit falls to 13.83% and at 180 fishing trips per year, it further reduces to 2 24% and at 175 trips, the profit is negative. The break-even point for a 9.82 m trawler, therefore, lies between 175 and 180 fishing trips in a year.

For 11m trawlers, the profit estimated to be 23.87% for 225 fishing trips in a year, 10.29% for 200 fishing trips and 1.53% for 185 fishing trips. When the number of fishing trips is reduced to 180, the profit becomes negative. Thus for 11 m trawlers the break-even point lies between 180 and 185 fishing trips in a year.

It is also evident from Table II that the profitability of smaller size of trawlers depends on the number of fishing trips they perform during a year. These boats which operate for less than 180 fishing trips in a year are likely to run on loss. This is mainly due to the high cost of operation of the boats. Out of the total expenditure, fuel cost alone contributes 45%. Most of the boats were unable to cross the break-even point of fishing trips in a year owing to unsteady catch and high cost of fuel. This can be avoided to a certain extent by extending the subsidy on diesel oil to smaller classes of trawlers also.

TABLE - I

COMPARATIVE ECONOMICS OF OPERATION OF FISHING TRAWLERS OF 9.82 M (32 FT) AND 11 M (36 FT) ON THE BASIS OF 225 FISHING TRIPS IN A YEAR

Fixed Cost (a)	11 m (36 ft) Rs.	9.82 (32 ft) Rs.
1. Bank Interest	16500	12000
2. Insurance	11000	8000
3. Loan repayment	18300	13300
4. Repair and maiatenance including cost of implements	16500	12000
5. Depreciation	11600	8400
6. Cost of Gear	1250	1000
7. Berthing charges	2000	2000
Total	77150	56700

Variable Cost (b)		
1. Fuel	56250	49500
2. Wages, Commission and batta for crew	69066	55676
3. Cost of Ice	2250	2250
Total	127566	107426
Total expenditure (a+b)	204716	164126
Total Receipt	253580	208575
Net profit	48864	44449
% profit on Total expenditure	23.9%	27.0%

TABLE - II

PROFIT IN RELATION TO NUMBER OF FISHING TRIPS

11 m (36 ft Boats)		9.82 m (32 ft)	
No. of trips	% Profit	No. of trips	% Profit
225	23 87	225	27.08
200	10.29	200	13.83
185	1.53	180	2.24
180	(—) 1.49	175	(—) 0.79

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