

SOCIO-ECONOMICS OF TRADITIONAL FISHERMEN IN TIRUNELVELI COAST OF TAMIL NADU*

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ABSTRACT

An investigation on the socio-economic condition of traditional fishermen was carried out in Alanthalai fishing village near Tiruchendur, along Tirunelveli Coast of Tamil Nadu. Information pertaining to housing pattern, ownership of means of production, employment status, occupation, annual income, indebtedness, marketing problems, etc. was collected from all families of the village by interviewing the heads of households.

The analysis of housing pattern indicates that 31% of families live in temporary structures (huts), 28% in semipermanent (tiled roof) and 41% in permanent structures (concrete). About 70% of the houses have less than 500 sq. ft. of living space. The average size of family is 6. Almost all (98%) are in favour of dowry system and not in favour of inter-caste marriages. About 90% of the fishermen are against family planning.

Catamaran is the lone craft operating in this area. About 38% of the fishermen households owns catamaran units and 7% has only nets. 60% of the catamaran owners possesses less than 2 type of nets which is not sufficient for efficient operation throughout the year. The average initial investment of a catamaran unit works out at Rs. 9,950. *Chalavala* alone accounts 55% of the total investment on gears. Other sardines constitute 83% of the annual catch of a catamaran. The major source of income for 71% of the families is active fishing, for 11% fishery related activities and for the rest (18%) other activities. The average annual income of a fisherman household works out at Rs. 4,886. About 44% of the fishermen families are in debt. The average outstanding debt per indebted household is Rs. 2,915. About 49% of the loan amount is utilized for productive purposes. The flow of credit from institutional agencies is only 34%. Easy availability of credit through institutional agencies, opportunities for supplementary occupations and better infrastructure facilities for marketing are some of the suggestions given for the economic improvement of traditional fishermen.

INTRODUCTION

FISHERMEN of our coastal villages are in the lowest rung of the social ladder. With the advent of planning in India, considerable attention has been devoted to reduce individual as well as regional income disparities. The allocation of resources for fisheries sector in each successive five year plan has been increased

with a view to augment marine fish production and to improve the socio-economic conditions of fishermen. Mechanisation of fishing craft and introduction of nylon nets coupled with higher external demand for marine products resulted in speedy development of marine fisheries sector. However, it is widely believed that the benefits of the development has been cornered by a few in the higher income group in the sector. Fishing in our country has become more capital intensive and the traditional fishermen find it difficult to cope up with the

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increased investment requirement to acquire adequate means of production. Hence it is imperative to formulate need-based and location oriented developmental schemes and credit policies on the basis of the existing socio-economic structure of the coastal rural sector. In this perspective the Central Marine Fisheries Research Institute, has conducted a number of socio-economic studies of fishing villages in different regions of our country (i) to find out the socio-economic characteristics of traditional fishermen living in this area and (ii) to assess the extent of capital investment on means of production, fishing income, level of indebtedness and credit utilization pattern.

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MATERIALS AND METHODS

Based on a preliminary investigation carried out in the villages of Tirunelveli Coast of Tamil Nadu, Alanthalai village near Thiruchendur has been selected for a detailed socio-economic survey. Information regarding size of family, type of house and living space, educational status, occupational pattern, ownership of means of production, craft-gear combinations, mode of marketing, income, indebtedness and credit utilization was collected by interviewing heads of fishermen families through a specially designed schedule during the year 1982-83. Local enumerators from the fishermen community were engaged for data collection to ensure maximum accuracy.

The definitions of terminologies used in collection and interpretation of data are given below:

Type of houses

(a) *Temporary structures*: A dwelling with mud/brick/stone walls or an enclosure made of 'thattis' with a thatched roof.

(b) *Semi-permanent structures*: A dwelling with brick/stone walls and tiled roof.

(c) *Concrete house*: A dwelling with brick/stone walls and having concrete roof.

Fishermen household: Any household wherein at least one member of the family is engaged either in fishing or fishery related activities.

Family: Members sharing meals from one kitchen.

Educational status

(a) *Primary*: Those who have passed 5th standard.

(b) *Middle*: Those who have passed 8th standard.

(c) *Secondary*: Those who have passed 10th standard.

(d) *Higher secondary and above*: Those who have acquired some other qualification after secondary.

Children: All male and female children below 12 years of age.

Major occupation: Occupation which brings more than 50% of the households income.

Fishery related activities: Activities like fish trading, processing/curing, transporting, loading/unloading, net splicing/repairing, boat building/repairing and other activities related to fishery.

Other activities: All non-fishery occupations.

RESULTS AND DISCUSSION

There are about 275 fishermen households in Alanthalai village. The entire fishermen belong to Catholic Parava Community. The fishermen population is about 1,547. Average size of family is 6 and the sex-wise distribution showed that the population is evenly distributed. Adults falling in the age group of over 18

constitute 62%. About 28% of the population is literate, of which 88% has only primary education. Only 8% has secondary education and 4% post-secondary qualification. It is observed that maximum dropouts are in primary level. The fishermen believe that the ideal time for getting training for the laborious catamaran fishing is around the age of ten. Hence many of the children in the age group of 10-14 get the basic training in swimming, floating, assisting in fishing, etc. with the result that they are not able to attend the school.

Working population of Alanthalai village is 477 (31%), of which 405 (85%) are engaged in fishing and fishery related activities (Table 2). The ratio between average earning members and the dependents in a family is approximately 1 : 3. Among employed persons, 58% are engaged in active fishing, 27% in fishery related activities and 15% in other activities. Of those employed in fishery related activities maximum number of persons (58%) is engaged in net making or repairing followed by fish trading (33%) and the rest (9%) in curing and processing of fish. About 73% of the people engaged in fishery related activities are females.

TABLE 1. *Housing types with number of rooms and living space*

Type of house	Number of houses	No. of rooms per house	Number	Living space (sq. ft.)	Number
Temporary structures	.. 85 (31)	Less than 3	206 (75)	Less than 500	192 (70)
Semi-permanent structures	.. 77 (28)	4 to 5	56 (20)	501-750	32 (11)
Concrete houses	.. 113 (41)	More than 5	13 (5)	751-1000	23 (8)
				Above 1000	28 (11)
Total	.. 275 (100)		275 (100)		275 (100)

Figures in parentheses indicate percentages.

The study indicates that 31% of fishermen families live in temporary structures which do not have sufficient dwelling space and most of them are ill-ventilated. About 28% live in semi-permanent and 41% in permanent structures. The housing type along with number of rooms and living space are given in Table 1. About 75% of houses have less than 3 rooms, 20% 4 to 5 rooms and only 5% have more than 6 rooms. Regarding living space 70% of houses have less than 500 sq. ft., 11% 500 to 750 sq. ft., 8% 750 to 1,000 sq. ft. and 11% have above 1,000 sq. ft. About 5% of the houses have no separate kitchen. Electricity and water facilities are available in the village.

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TABLE 2. *Occupational pattern of working population*

Occupation	Number
Active fishing	.. 276 (58)
Marketing of fish	.. 43 (9)
Net making/repairing	.. 75 (16)
Curing and processing of fish	.. 11 (2)
Other activities	.. 72 (15)
Total working population	.. 477 (100)

Figures given in brackets denote percentages.

About 38% of the fishermen households own catamaran units and 7% have only nets.

About 60% of catamaran owners possess one or two types of nets which is not sufficient for efficient operation throughout the year (Table 3). Only about 25% of the catamaran owners possess more than three types of gears. Regarding capital investment on fishing

TABLE 3. Family-wise distribution of means of production and capital investment

Ownership of craft/ gears	No. of fami- lies	Investment on fishing equip- ments (Rs.)	No. of fami- lies
Gears alone	19 (15)	Less than 5,000	24 (19)
Catamaran with one type of gear	16 (13)	5,001-10,000	53 (43)
Catamaran with 2 types of gears	58 (47)	10,001-15,000	30 (24)
Catamaran with 3 types of gears	18 (15)	Above 15,000	17 (14)
Catamaran with 4 or more types of gears	13 (10)		—
Total	124 (100)		124 (100)

Figures in parenthesis indicate percentage.

equipments, 19% of the owners have invested less than Rs. 5,000, 43% Rs. 5,000-10,000, 24% Rs. 10,000 - 15,000 and 14% above Rs. 15,000. The average initial investment of a catamaran unit works out at Rs. 9,950. *Chalavala* accounts for 55% of the total investment on gears. The gears commonly used are drift gill nets (*Chalavala*, *Ralvala*, *Paruvala*) bottom set gillnets (*Thirukkai vala*, *Sinkiralvala*) and hooks and lines. Regarding the operation of gears *Chalavala* is operated throughout the year catching mainly sardines. The average investment for ten pieces of *Chalavala* comes about Rs. 3,350. *Ralvala* operation is restricted to the period from June to August. Its catch consists mainly of prawns. The average purchase value for 6 pieces of *Ralvala* comes about Rs. 1,600. *Thirukkai vala* is used for July to November for fishing rays and

Sinkiralvala for lobsters from November to February. From March to April *Paruvala* is engaged for fishing. The average initial investment for *Thirukkai vala* (4 pieces) comes about Rs. 500, *Sinkiralvala* (4 pieces) Rs. 600 and hooks and lines (50 hooks) Rs. 50. Other sardines constitute about 83% of the annual catch and 71% of the revenue of a catamaran unit. Rays, ribbonfish, lobsters, whitefish and seerfish are the other main varieties caught in these units.

The landing centre at Alantalai itself is the primary market and the catch is generally sold out immediately after landing through auctioning. The auctioners get about Rs. 3 for each transaction. Daily about 60 cycle and 10 headload vendors arrive at this landing centre. Most of the people engaged in fish trade are outsiders.

The average annual income of a fisherman household works out at Rs. 4,886. The classification of fishermen families based on occupation and annual income is given in Table 4. The

TABLE 4. Classification of fishermen families based on occupation and annual income

Annual income Rs.	Families based on occupation			
	Active fishing	Fishery related activities	Other activities	Total
Less than 1000	1	4	1	6
1000- 1500	5	2	2	9
1500- 2000	5	2	1	8
2000- 2500	11	5	5	21
2500- 3000	12	3	8	23
3000- 4000	40	7	10	57
4000- 5000	42	3	6	51
5000- 7500	56	5	7	68
7500- 10000	12	—	5	17
Above 10000	11	—	4	15
Total	195	31	49	275

major source of income for 71% of the families is fishing, 11% fishery related activities and

the rest (18%) other activities. In Alanthalai, 8% of the fishermen families have an annual income of Rs. 2,000 and below, 16% ranging from Rs. 2,000 to 3,000, 21% ranging from Rs. 3,000 to 4,000, 19% from Rs. 4,000 to 5,000, 25% from Rs. 5,000 to 7,500, 6% from Rs. 7,500 to 10,000 and 5% above Rs. 10,000.

Analysis of income levels of the fishermen families according to major occupation has revealed that the average annual income of families having fishing as major occupation is Rs. 5,145. About 17% of active fishermen families have an income of less than Rs. 3,000 per annum. Majority of them (71%) have an income ranging from Rs. 3,000 to 7,500 per annum and 12% earn more than Rs. 7,500. With regard to the families depending on fishery related activities it is seen that 20% of the families earn less than Rs. 1,500, 32% 1,500-3,000 per annum and 48% are in the income group of Rs. 3,000 to 7,500. The average annual income of households depending on fishery related activities works out at Rs. 3,161. Among the families depending on other activities as their major occupation, 35% have an income of less than Rs. 3,000, 47% are in the income range of Rs. 3,000 to 7,500 and 18% in the range of Rs. 7,500-15,000 per annum. The average annual income of households depending on other activities works out at Rs. 4,950.

It is seen that the percentage of families having an annual income of less than Rs. 3,000 is more (52%) among those engaged in fishery related activities. The families in the income group of Rs. 3,000 to 7,500 are more among active fishermen and those earning in the range of Rs. 7,500-15,000 per annum are more among those engaged in other activities.

Out of 275 families in Alanthalai 111 (44%) are in debt. The average outstanding debt per indebted household works out at Rs. 2,915. Table 5 gives the extent of contribution of different agencies to the total borrowings of

Rs. 3,236 lakhs. The contribution of money lenders is comparatively high as they account for

TABLE 5. *Source-wise distribution of credit*

Source of credit	Loan advanced Rs.	Per cent
Money lenders	.. 1,50,200	46
Fish traders	.. 32,750	10
Catamaran owners	.. 15,200	5
Banks	.. 63,830	20
Co-operative society	.. 46,620	14
Others	.. 15,000	5
Total	.. 3,23,600	100

46% of the total credit. In addition to the professional money lenders some catamaran owners (10%) and fish traders (5%) also advance loan to fishermen. The catamaran owner gives loan to crew on the condition that they should work only in his unit. The fish traders advance loans to the owners of catamaran units and it is binding on the part of the owner to sell the catch only to the trader. The commercial banks have provided only 20% of the credit. The banks may have difficulties to advance loans on the security of catamaran which is usually the only valuable thing that some of these fishermen can hypothecate.

The utilization of credit for different purposes by the fishermen is given in Table 6. About 49%

TABLE 6. *Utilization pattern of credit*

Purpose	Per cent
Purchase of craft and gear	.. 49
Family expenditure	.. 22
Construction and repairing of house	.. 5
Marriage and social functions	.. 8
Miscellaneous	.. 16

of the loan amount is utilised for the purchase of craft and gears. The amount taken for household expenditure during lean season is

22%, construction and repairing of house 5%, marriage and social functions 8% and miscellaneous expenditure 16%.

The fishermen of this village confine to the local landing centre and never go to other centres for landing their catches. Similarly fishermen from other villages also are not allowed to land their catch at this centre. Almost all fishermen (98%) are in favour of dowry system and not in favour of inter-caste marriages. Mostly the marriages are arranged within the village. About 90% of the fishermen are against family planning. The major festivals of this village are Good Friday, Easter and Christmas. The local church festival also is celebrated twice in a year.

Regarding infrastructure facilities, Thiruchendur is the nearest railway station, which is about 4 km from here. The Thiruchendur-Kanyakumari road is about 0.5 km from the village. There is one Post and Telegraph office and a public telephone facility located in this area. There are two middle-schools, one for boys and another for girls. The catholic mission is running a dispensary in which a doctor will visit occasionally. But for urgency it cannot be relied. There is one primary fishermen cooperative society and another fishermen production and marketing society located in this village. However fish marketing is carried out by the society to a very limited extent. There is no ice or freezing plant here. The insulated trucks of a few exporters used to come here only during prawn season.

CONCLUSION

The socio-economic status of traditional fishermen is very low. The average annual income of a fisherman household is only Rs. 4,886 with a per capita income of Rs. 869. The literacy rate is only 28% which is far below the state average of 46%. The working population in the traditional fishery sector of

the village is only 31% as against 36% for Tamil Nadu as a whole. The study indicates that 55% of the fishermen households have no means of production. Credit facility is poor in this village and about 44% of the households alone could manage to raise some loan. The role of Institutional agencies in supplying credit is negligible as 66% of the loan amount is provided by private money lenders. Based on our findings, the following suggestions are given for the comprehensive development of traditional fisheries sector.

Easy availability of credit to the artisanal fishermen shall go a long way for procurement of fishing implements and better utilization of the manpower. The banking institutions should formulate liberal credit policies keeping in view the peculiar nature of fishing enterprise. Majority of the fishermen are not in a position to hypothecate anything valuable or to fulfil the usual terms and conditions of the banks. All branches of nationalised banks along the coastal belt should have separate funding schemes to provide loans to fishermen.

The seasonal nature of fishery and the risk and uncertainties associated with this venture entangle the fishermen in the low income trap and vicious circle of poverty. The alternate employment opportunities are very meagre and fishermen find it difficult to tide over the lean season. Supplementary occupations like poultry and livestock and the establishment of any labour intensive cottage industries would help to a great extent for the economic improvement of fishermen. Hence special emphasis should be given to create more self-propelling employment opportunities in future developmental programmes.

Lack of marketing infrastructure facilities is another factor responsible for lesser returns to fishermen. It may not be possible to start ice plants, freezing plants and other storage facilities in each fishing village. The government can provide these facilities at least for a cluster

of villages together through the fishermen cooperative societies. The general amenities like health, sanitary, school, library and reading rooms are also comparatively very poor in this village. Steps may be taken by local governmental agencies to provide the same. The

literacy rate is very poor and activities of National Adult Education Programme (NAEP) can be further intensified. The response of fishermen for anti-dowry system, inter-caste marriages and family planning has been negative indicating the need for more extension work.