

Economic Impact Of Mechanised Boat Workers In Thoothukudi District of Tamil Nadu

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Abstract

The fisheries sector is contributing to the economic growth of the nation. The present study is to analyse the economic impact of mechanised boat workers and their level of satisfaction of Thoothukudi district.

The study has the following objectives

1. To study the socio-economic outline of the mechanised boat workers.
2. To find out the reasons for selecting the job
3. To analyse the economic impact of mechanised boat workers and
4. To examine the satisfaction of mechanised boat workers.

The present research has considered Thoothukudi district as the study area. The researcher has chosen 4 mechanised boat workers from Tharuvaikulam village, 70 mechanised boat workers from Thoothukudi area and 1 mechanised boat worker from Veerapandianpattinam area in Thoothukudi district, totally 75 mechanised boat workers are the sample for this study. Secondary data have collected from books, journals, magazines, newspapers etc. The reference period of the survey is 2018-19. For analysing the primary data and the secondary data, average, percentages, standard deviation, chi-square test, stepwise multiple regression analysis and Garrett's ranking techniques statistical tools had used. The study reveals that the association between the satisfaction of mechanised boat workers and socio-economic variables namely age, type of family, family size and reasons for selecting the job is significant at 5 per cent level as the P-value is less than 0.05. Hence, the null hypothesis rejected for these variables. The rest of the socioeconomic variables, namely, marital status and educational qualification not significantly associated at 5 per cent level with the satisfaction of mechanised boat workers. Hence, the null hypothesis has accepted for these variables. Therefore, it may be decided from the analysis of the findings of the present study that the life of the mechanised boat workers tends to be better economically after fishing.

Keywords: fisheries sector, economic growth, mechanised boat, f livelihood, oreign exchange, value addition.

INTRODUCTION

India, with a long maritime history of exploitation of living resources from the sea, occupies the third position in the world for the total annual catch of fish¹. Fisheries were necessarily the source of livelihood for different sections of fish workers². The marine fish and its products have excellent export potential for earning a considerable amount of foreign exchange for the nation³. This sector is thus an essential source of livelihood for a large section of the economically reluctant population of the country, particularly in the coastal areas⁴.

Fish is an essential source of food next only to agriculture and animal husbandry. Rendering to the Food and Agricultural Organization (FAO), at present about seven-tenths of the world fisheries catch is used for human food, and the remainder for various industrial purposes, besides, being made into intermediate products used in pig and poultry feeding and manufacture of margarine and other products⁵.

It is as well crucial to note that while inland fisheries also exist, their contribution to value addition is far less than that of marine fisheries. The advent of commercial fishing during the last fifty years has closely linked the fishing with shipping, mechanised propelling, refrigeration, etc., this facilitated the process of recognising fishing as an industry itself. The

¹Kalita, K., and Bhagabati, S.K., Fisheries Education in the State of Assam, Fishing Chimes, 26(10): 2007, pp.108-110.

² P. Ibrahim, Fisheries Development in India, Classical Publication, New Delhi, 1992, pp. 15-44.

³Selvaraj, P., Seafood Export Journal, 1989, pp.23-24.

⁴ Shah, K.C., Action Plan to Boost Exports of Indian Marine Products, Fishing Chimes, 38(23): 1991, pp.14-16.

⁵ Food And Agricultural Organisation, Report on Indian Fisheries, as quoted in Report of the Working Group on Fisheries for the Tenth Five Year Plan, Planning Commission, Government of India, June, 2001, pp 1-9.

present study is to analyse the economic impact of mechanised boat workers and their level of satisfaction of Thoothukudi district.

OBJECTIVES OF THE STUDY

The study has the following objectives

1. To study the socio-economic outline of the mechanised boat workers.
2. To find out the reasons for selecting the job
3. To analyse the economic impact of mechanised boat workers and
4. To examine the satisfaction of mechanised boat workers.

METHODOLOGY

The present research has considered Thoothukudi district as the study area. Marine fisher's population in the coastal villages in each zone of the district and active fishers in the coastal villages form the universe. Based on the zone in the coastal line, only 23 marine fishermen villages are engaged with fishing. The villages are Vembar, Keezhavaippar, Sippikulam, Pattinamarudur, Tharuvaikulam, Vellapatti, T. Saveriyarpuram, Siluvaipatti, Loorthamalpuram, Thoothukudi, Ratchanyapuram, Palayakayal, Punnaikayal, Kayalpattinam, Singhithurai, Veerapandianpatnam, Amalinagar, Alanthalai, Kulasekarapattanam, Manapad, Periyasampuram, PuthiyaThuraimugam and Periyathalai.

However, only three villages namely, Thoothukudi, Tharuvaikullam and Veerapandianpatinam fishers are fishing through mechanised boats. Thus the researcher has chosen 4 mechanised boat workers from Tharuvaikulam village, 70 mechanised boat workers from Thoothukudi area and 1 mechanised boat worker from Veerapandianpattinam area in Thoothukudi district, totally 75 mechanised boat workers are the sample for this study. Secondary data have collected from books, journals, magazines, newspapers, Department of Fisheries and Village Administrative Offices and District Statistics Office, Thoothukudi. The reference period of the survey is 2018-19. For analysing the primary data and the secondary data, average, percentages, standard deviation, chi-square test, stepwise multiple regression analysis and Garrett's ranking techniques statistical tools had used.

REVIEW OF LITERATURE

Babaji (1984)⁶ in a research project had analysed the production, marketing and consumption characteristics of marine fishery sector in Visakhapatnam. He had deliberated

⁶Babaji, Indian Institute of Management, Marine Fish Marketing in India, Vol.VI, Ahamadabad, 1984, pp.176 -179.

the economy of fisheries sector concerning the socio-economic profile of traditional fishers as well as mechanised boat owners. He had also examined the fish consumption pattern of people in Vishakapatnam.

Selvaraj (1988),⁷ in his study, has recognised the fishing seasons for important species of fish groups and estimated the economics of different craft categories in the selected coastal fishing villages of Kanyakumari District of Tamilnadu. He formulated suitable strategies for the development of the fisheries sector for the betterment of fisherfolk in the district.

Senthilathiban and Selvaraj (1990)⁸ have conducted a study in Chidambaranar district to estimate the credit requirements, credit availability and repayment performance of the fishermen. Their study reveals that the sufficiently higher positive net worth for the traditional, motorised and mechanised craft categories showed financial soundness of marine fishing.

Narayana Kumar, R (1998)⁹ analysed the socio-economic condition of the marine fishermen and their attitude towards development schemes. The central marine fisheries research institute has been uninterruptedly monitoring the socio-economic conditions of the traditional fishermen and directed several studies along the coastal belt to assess the existing socio-economic status using the parameters such as family size, age structure, educational and professional pattern, customs, opinions and the standard of living of the coastal fishermen family have been analysed. The changes that have been brought about by the mechanisation of the fishing industry in term of income and employment compares and investment on family equipment have been discussed.

⁷Selvaraj.P., Status of Marine Fisheries of Kanyakumari District, *Fishing Chimes* 8(1): 1988, pp.72-79.

⁸Senthilathiban, R and Selvaraj P (1990) "Demand for and supply of marine fisheries finance in Chidambaranar District of Tamil Nadu", *Financing Agriculture*, Oct – Dec, pp. 16-19.

⁹Narayana Kumar, R 1998, "Socio-economic analysis of Marine Fishermen in India", *Journal of Marine Fishermen Research and Management*, Vol.7, No.3, pp.895-906.

Rao (2001)¹⁰ had found that the fisheries sector occupies an essential place in the socio-economic development of India. This sector has been recognised as a robust income and employment generator as it stimulates the growth of several subsidiary industries and also it serves as a source of economic nutrition. More than six million fishermen and fish farmers depend on fishing and aquaculture for their livelihood.

Balasubramaniyan (2001)¹¹ in his study compared the economic status of fishers in two marine fishing villages of Orissa State viz., Pentakota and Belinoliasahi. They show the economic status and the mean scores of respondents in the two villages, which differed significantly at one per cent level. The results also revealed that the fishers had a favourable attitude towards the motorisation of fishing crafts in both the villages.

Md. IstiaqueHossain (2009),¹² in their study, has classified the fishermen into two social groups, namely land owner fishers and landless fishers. It was found out that the majorities of the landless were illiterate, lived below the poverty line, healthy, per capital income less, while landowners were educated, healthy, and per capita income more. Seasonally flooded ecosystem played a vital role in the livelihoods of the inhabitants. Water productivity-enhancing measures like alternative rice-fish culture could provide additional food and income for the socio-economic development of the stakeholders.

ANALYSIS

TABLE 1

DISTRIBUTION OF SAMPLE WORKERS ACCORDING TO THEIR AGE

S.No.	Age	No. of mechanised boat workers	Percentage
1.	Below 25 years	4	5.33
2.	26 – 35 years	17	22.67
3.	36 – 45 years	29	38.67

¹⁰Rao, S.M. (2001), “Fisheries profile of the Bay of Bengal: A fact sheet of India”, Bay of Bengal Programme News, Vol.III, No.4, pp. 5-37.

¹¹Balasubramanian, S., Socio-Economic Status of Marine Fishermen in Two Fishing Villages of Orissa, *Fishing Technology*, 38(1): 2001, pp.51-55.

¹²IstiaqueHossain Md. (2009), “Socio-economic condition of fishermen in seasonal floodplain Beals in Rajshahi District, Bangladesh”, *Research Journal of Social Science*, pp.74-81.

4.	46 – 55 years	18	24.00
5.	Above 56 years	7	9.33
Total		75	100

Source: Primary data.

From Table 1 the age distribution of the 75 sample mechanised boat workers shows that 5.33percent of the mechanised boat workers are in the age group of below 25 years and 22.67percent are in the age group 26 to 35 years. 38.67 percent of the total mechanised boat workers constitute the age group of 36 to 45 years. 24.00 percent of the total mechanised boat workers form the age group of 46 to 55 years and those above 55 years represents 9.33 percent. It observes from the Table that the majority of the mechanised boat workers belong to the age group of 36-45 years. The mean age of mechanised boat workers worked out to be 41.43 years.

TABLE 2
DISTRIBUTION OF SAMPLE WORKERS ACCORDING TO THEIR
EDUCATIONAL LEVEL

Sl. No.	Educational level	No. of mechanised boat workers	Percentage
1.	Illiterate	10	13.33
2.	Primary	23	30.67
3.	High school	29	38.67
4.	Higher secondary	9	12.00
5.	Degree/ Diploma	4	5.33
Total		75	100

Source: Primary data.

It has inferred from Table 2 that out of 75 samples, 13.33percent of the samples are illiterate. 30.67percent have studied up to primary level, 38.67 percent have completed high school level, and 12.00percent have completed higher secondary. 5.33 percent of the sample mechanised boat workers have studied up to degree/diploma.

TABLE 3
DISTRIBUTION OF SAMPLE WORKERS ACCORDING TO THEIR MARITAL
STATUS

Sl. No.	Marital Status	No. of mechanised boat workers	Percentage
1.	Unmarried	7	9.33
2.	Married	66	88.00
3.	Widower	2	2.67
	Total	75	100

Source: Primary data.

It has inferred from Table 3 that the majority of 88.00 percent of the sample mechanised boat workers are married. 9.33 percent is unmarried, 2.67percentwidower.

TABLE 4

DISTRIBUTION OF SAMPLE WORKERS ACCORDING TO THE TYPE OF FAMILY

Sl. No.	Type of Family	No. of mechanised boat workers	Percentage
1.	Nuclear family	48	64.00
2.	Joint family	27	36.00
	Total	75	100

Source: Primary data.

Table 4 reveals that out of 75 sample mechanised boat workers, 64.00 percent have a nuclear family system, and only 36.00percent have a joint family system. It can be incidental that majority of the sample mechanised boat workers have a nuclear family system in the study area.

TABLE 5

DISTRIBUTION OF SAMPLE WORKERS ACCORDING TO THEIR FAMILY SIZE

Sl. No.	Family Size	No. of mechanised boat workers	Percentage
1.	Below 3	19	25.33
2.	3 – 5	38	50.67
3.	5 and above	18	24.00
	Total	75	100.00

Source: Primary data.

Note: Average family size 3.97.

A maximum of 38 (50.67 percent) of mechanised boat workers have a family size of 3 to 5 members, followed by 19 (25.33 percent) having a family size of below 3. 18 (24.00

percent) have a family size of 5 and above. It observed from Table 5 that the majority of them have a family size of 3 to 5 members. The average size of the family worked out to be 3.97.

REASONS FOR SELECTING FISHING

TABLE 6

Sl. No.	Reasons for Selecting fishing	Mechanised boat workers	
		Average Score	Rank
1.	Low educational qualification	65.15	IV
2.	Poor economic condition	58.04	VI
3.	Lack of alternate employment	40.73	X
4.	Personal interest	61.55	V
5.	Better education for children	50.29	VIII
6.	Growth Opportunities	69.17	III
7.	Easily available	45.39	IX
8.	Hereditary	78.12	I
9.	Family background	54.67	VII
10.	Living place	73.54	II

Source: Computed from Primary Data

Table 6 shows the details about the reasons for selecting the job of the respondents in fishing are by using Garrett’s score. The first rank for a reason for choosing fishing assigned to hereditary, followed by living place in Thoothukudi district. Third and fourth ranks were given to growth opportunities and low educational qualification, respectively. Personal interest and poor economic condition were ranked fifth and sixth, respectively. The seventh rank was given to the reason for family background followed by better education for children, readily available and lack of alternate employment respectively.

Assessment of the contribution of Independent Variables on the economic impact of mechanised boat workers

To evaluate the influence of independent variables on the economic impact of mechanised boat workers, stepwise multiple regression analysis was carried out. The results presented in Table 7.

TABLE 7

SUMMARY OF STEP WISE MULTIPLE REGRESSION DEPENDENT VARIABLE ECONOMIC IMPACT

Variables in Equation	Multiple R	R ²	F	P	Beta
Income	0.9218	0.91	123.67	0.01	0.91
Education	0.9334	0.94	118.45	0.01	0.12
Family Status (size)	0.9108	0.93	109.42	0.01	0.01

It determined from Table 7 that three of the variables arrived into the equation, and the order of inclusion was as follows monthly income, education and family status. It perceived from the results that as each of the extra variables included, the values of multiple R and R² increased. It specifies that the income of the respondent, education and family status were the best set of predictors of the economic impact of mechanised boat workers having the mutual influence of about 95 percent. Change in any one of the variables, though others remained constant, exposed that it was the income of the respondent which had the most substantial influence to the economic impact of mechanised boat workers followed by education and family status respectively. Thus stepwise regression analysis exposed that the income of the respondents, education and family status were the best set of predictors of the economic impact of mechanised boat workers. Among these variables, income had a higher power on the economic impact of mechanised boat workers.

TABLE 8
THE EFFECT OF SOCIOECONOMIC CHARACTERISTICS ON THE SATISFACTION OF MECHANISED BOAT WORKERS USING THE CHI-SQUARE TEST

Socio-Economic variables	Chi-Square values	P Values	Significance
Age	13.19	0.001*	Significant
Marital status	4.67	0.329	Not Significant
Educational Qualification	7.38	0.207	Not Significant
Type of family	35.73	0.001*	Significant
Family size	19.64	0.001*	Significant
Reasonsfor selecting the job	15.72	0.001*	Significant

* Significant level of 5 per cent.

The above table 8 reveals that the association between the satisfaction of mechanised boat workers and socio-economic variables namely age, type of family, family size and reasonsfor selecting the jobis significant at 5 per cent level as the P-value is less than 0.05. Hence, the null hypothesis rejected for these variables. The rest of the socioeconomic variables, namely, marital status and educational qualification not significantly associated at 5 per cent level with the satisfaction of mechanised boat workers. Hence, the null hypothesis has accepted for these variables.

CONCLUSION

Based on the analysis and findings it can be identified that mechanised fishing has played a vital role, it increases the productivity in fishing and provided massive scale employment opportunities and income for mechanised boat workers in the coastal villages of Thoothukudi district. This study has also analysed the assessment of significance of fishing in the economic development genuinely, the role of mechanised boat workers in fishing, the socio-economic conditions of the sample mechanised boat workers and their level of satisfaction are the essential parts of the study. Therefore, it may be decided from the analysis of the findings of the present study that the life of the mechanised boat workers tends to be better economically after fishing.

Vulnerability and resistance, as well as ways to include real conversations and coordination with local groups and fishing participants at all stages of management, is the need of the hour. The study will provide policymakers with a better understanding of the crucial contribution of the fishing community to the country's economies at various scales and levels and therefore motivate the fisheries managers to develop sound policies aimed at protecting the fishing community.