



# Livelihood Status of Marine Fisheries in Visakhapatnam : An Extension Perspective

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## Abstract

They undertake the care of the family when the men are away at sea and are compelled to work and earn to make ends meet. Nearly 27,000 fisherwomen in Andhra Pradesh are involved in fish marketing; around 2,500 work in prawn peeling units and 24,521 in curing and processing. Visakhapatnam district is one of the important maritime districts of Andhra Pradesh, the fishing households are busily engaged in all the sea shore-based activities like sorting, weighing, salting, drying, marketing, etc. However, their economic activities go unnoticed. There is no scientific and extensive study on the economic activities of fishing households. Hence, a research is required inevitably to weed out the exploitation of the weaker section with total illiteracy living along the coastal line. It will throw light on their real contribution for economic development. This will also pave the way for providing proper compensation for their activities through suitable policy measures. The present research aims at studying the fisheries households conditions of Marine Fishing in Visakhapatnam District. In the present research, the investigator tries to study the fisheries households conditions of marine fishing in Visakhapatnam district. The study is confined to the socioeconomic status of fishing households. It is based on their role estimated using the data collected during 2022-2023.

**Key words:** marketing, fishing, education, age, occupation, fisher women, fish consumption

## Introduction

The State has large marketing potential for fish products in urban areas within the state and in other states of India. In India, 60% of population is non-vegetarians and hence there is demand of fish consumption. At Present the national fish consumption is 11 Kgs and in AP it is estimated at 7.4 Kgs. The world fish consumption is 21.0 Kgs. Hence, there is a huge gap in consumption which can be filled up by A.P by promoting domestic market. The state has 4 fishing harbours – Visakhapatnam, Kakinada, Nizampatnam and Krishnapatnam. 1 major port at Visakhapatnam and 14 non major ports offering vast opportunity for exporting fish products. There is scope for establishment of new fishing harbours/ fish landing centers and other post-harvest and market infrastructure to give value addition to the produce. Several modern retail and wholesale fish markets have been developed by the National Fisheries Development Board and State Fisheries department. Availability of 56 Processing Plants with a capacity of 2272 MT/ day, 148 ice plants, 45 Freezing Plants with a capacity of 1 million tones/ year and 28 Cold Storage Plants with a capacity of 25000 MT and operating with EU/ ISO 9000 / HACCP standards. Highly motivated fish/shrimp farmers, ample water availability and favourable climatic condition.

Fishery is concerned with economic exploitation of aquatic productivity. It means the capture and processing of (sea, coastal and inland) aquatic animals and plants as an occupation for profit. Fishery includes not only the business of catching fish in the ordinary sense but also taking of shell fish and other resources of the sea and inland waters. The important fishing grounds are found within a few hundred miles of the coast. They lie partly on the shore-belt of shallow water which covers the continental shelf or the submerged platform surrounding the continents. Others are located in the elevated parts of the sea floor at some distance from the shore. Almost all the important fishing areas are confined to the temperate zone which may be due to the warmth of the tropical water which favours the growth of innumerable kinds of fish. The tropical regions of the Atlantic, Pacific and the Indian Ocean hold out great promise for fisheries. Fishing households, particularly in the fishing communities are the most disadvantaged group. They have a very low status in the society. There are about 6.05 lakhs fishermen Andhra Pradesh. There were 1,40,089 fisherfolk engaged in fishing allied activities, such as labourers 46.00 per cent, marketing 28 per cent, curing/processing 12 per cent, making/repairing net 10 per cent and peeling 2 per cent. Their contribution to the development of small-scale fisheries is not recognized and compensated properly due to the social and cultural discrimination against them. They have acquired a secondary status in social life, economic activities and decision-making. A number of socio-economic constraints limit their work productivity and role in employment and income generating activities. They have the potential to play an active and sometimes dominant role in fishing related activities.

### Review of Literature

Mallika Wanigasundara (1981)<sup>8</sup> a survey conducted by the Women Bureau in fishing villages of Sri Lanka shows that eight per cent of women from fishing families did any work connected with fishing industry or for that matter any income generating work at all.

Veenakumari (1998)<sup>29</sup> explains the socio-economic status of women in India. The status of women is intimately connected with their economic position, which depends upon the opportunities for participation in economic activities. There are about 30 per cent rural households headed by women who bear all the burden of earning and caring for the families and suffer on account of lack of access to means of production and ownership of land and other property.

Verduijin (2000)<sup>30</sup> on behalf of the BOBP had conducted a survey in Kanyakumari district to find the basic needs of 39 coastal fishing communities, which inhabit the 68 Km stretch of the coast. Over the years, the intensity of fishing has increased partly on account of the increase in the active fishing population, partly due to the lack of alternative income generating opportunities and partly due to motorisation and mechanisation of fishing crafts.

Pinki Purkayastha & Susmita Gupta (2014)<sup>68</sup> conducted a survey for a period of 18 months January 2010-September 2011) on 150 fish framers of Chatla floodplain area to document the traditional fishing gears and fishing practices prevailing among them. It is found that the fishermen of Chatla floodplain area use different types of fishing gears developing upon the species and size of fish.

Geetha R, E. Vivekanandan, Joe K. Kizhakudan (2015)<sup>71</sup> Climate change will have strong impact on fisheries with far-reaching consequences on food and livelihood of a sizeable section of the population. The frequency and intensity of extreme climate events is likely to have a major impact on future marine fisheries production. Fishermen have excellent knowledge on the relationship between climatic, oceanographic factors and fish catch.

Khushbu and Rachna Gulati (2023) Fish is the world's largest food harvest and have significant source of protein as well as livelihood for many fish families in the developing world. Women play a significant role in the development of fisheries sector in supporting their role of household managers in most families. The exploiters think the silent pain of the fisherwomen as weak point and this has now become intolerable. If India's fisheries sector is to be satisfactorily sustained, the fisher women had to be empowered, both socially and economically.

## Objectives of the Study.

1. To assess the importance of marine fisheries in Visakhapatnam
2. To determine the extent to which Socio-Demographic Conditions that have an impact to promote the living status of fishing households;
3. To analyze the various fish marketing of the marine fishing households;

## Methodology

The present study has considered Visakhapatnam district as the study area since it has the lengthiest coast of Andhra Pradesh. In addition, fishery is the major source of employment in the coastal economy and it also consists of different types of activities in fisheries ranging from production, marketing of fishes and dried fishes, fish processing, exporting etc.

Since it is very difficult and time consuming to cover the entire fishing households in the present study, the researcher proposed to use sampling techniques. From each mandal 75 fishing households from traditional craft, 75 fishing households from traditional motorized boat fishing households the total of 300 sample respondents was selected two mandals. Among them 150 respondents were traditional craft fishing households and 150 were traditional motorized boat fishing households.

## Age-wise Composition of the Respondents

Age is one of the determining factors of employment. A family which contains more number of children and aged people will suffer since their earning capacity is low. On the contrary, a family would better off, if it contains more working class people. The age-wise composition of the respondents is shown in the following Table 1. The data reveals that 29.00 per cent of the fishing households engaged in various fishing activities belong to the age group of 41-50, and 18.00 per cent belong to the age group of 31-40. 17.00 per cent are in the age group of 51-60. An interesting feature is that men in the age group of more than 60 years are 13.00 per cent. This indicates that the fishermen community is custom bound and that it prevents the men in the most productive age from work participation. After the age of 65 the male members keep away from fishing, and they are cared by their children. 10.00 per cent belong to the age group of below 20. This indicates that the young fishermen community does not like these fishing activities.

**Table: 1**

**Age-wise Composition of the Respondents**

Craft group	Age Group (in Years)						Total
	Below 20	21-30	31-40	41-50	51-60	Above 60	
Traditional Craft	18 (12.00)	23 (16.00)	29 (19.00)	46 (31.00)	21 (14.00)	14 (9.00)	150 (100.00)
Traditional motorized boat	12 (8.00)	20 (14.00)	24 (16.00)	41 (28.00)	29 (19.00)	24 (16.00)	150 (100.00)
<b>Total</b>	<b>30</b> <b>(10.00)</b>	<b>44</b> <b>(15.00)</b>	<b>53</b> <b>(18.00)</b>	<b>87</b> <b>(29.00)</b>	<b>50</b> <b>(17.00)</b>	<b>38</b> <b>(13.00)</b>	<b>300</b> <b>(100.00)</b>

Source: Field Survey

## Educational Status-wise distribution of the Respondents

Education is the lever of development in any society. A greater percentage of the fishing households are either illiterate or educated at primary or second school level. The distribution of fishing households based on their educational status is presented in the following table 2. The data clearly indicates that nearly 51.00

per cent of the respondents are literates. It is a peculiar situation in this study area that all people have a positive attitude towards education. However, 15.00 per cent of the respondents have studied primary level of education, 11.00 per cent of the respondents have studied secondary school level of education. 49.00 per cent of the respondents are illiterates, but they also try to educate their children to the maximum extent possible.

**Table: 2**  
**Educational Status-wise Distribution of the Respondents**

Craft Group	Educational Status							Total
	Illiterate	Literate	Primary	Secondary	Inter	Degree	Technical	
Traditional Craft	89 (59.00)	27 (18.00)	21 (14.00)	14 (9.00)	0 (0.00)	0 (0.00)	0 (0.00)	150 (100)
Traditional motorized boat	58 (39.00)	42 (28.00)	25 (17.00)	19 (12.00)	2 (1.00)	3 (2.00)	2 (1.00)	150 (100)
<b>Total</b>	<b>146</b> <b>(49.00)</b>	<b>69</b> <b>(23.00)</b>	<b>46</b> <b>(15.00)</b>	<b>32</b> <b>(11.00)</b>	<b>2</b> <b>(0.50)</b>	<b>3</b> <b>(1.00)</b>	<b>2</b> <b>(0.50)</b>	<b>300</b> <b>(100)</b>

Source: As ex ante

### Subsidiary Occupation-wise distribution of the Respondents

Occupation indicates the nature of livelihood of a population as well as the social status that a particular community is bestowed with in this study area a vast majority of the workforce is engaged in fishing related activities. The fisherfolk of Visakhapatnam district engaged in traditional crafts, mechanized boats, fibre boats for fishing. Mainly two types of crafts are very much popular among the maritime districts of Andhra Pradesh for their expertise in fishing. Apart from fishing a sizeable number of fishermen and fisherwomen engage in fishing-allied activities like fish-vending, wholesale trade of dried and fresh fish, net making, fish processing and coir-retting. Even though the fishing and its allied activities are seasonal occupation with irregular flow of income, most of the fisherfolks do not have any alternative employment. The reason is that the fisherfolk, especially those fishing, by virtue of their socio-economic status and occupation, do not have opportunities to mingle with non-fishing communities. This causes a sense of unwillingness to do any work other than fishing. The following table gives the number of sample households with subsidiary occupations.

Among the 300 respondent families, 36.00 per cent engage in fishing related activities like fish-vending, wholesale trade of dried and fresh fish, net making, fish processing and coir-retting, two per cent are self employed, one per cent are government employees, 7 per cent are professionals, four per cent are private employee, 6 per cent are agriculturists and 45.27 per cent of the fishermen are unemployed. Majority of the fishing households, as much as 45.00 per cent are not having any subsidiary occupation. They do not earn any income for their households.

**Table: 3**

### Subsidiary Occupation-wise distribution of the Respondents

Craft Group	Subsidiary Occupations							Total
	Fishing related activities	Self employed	Govt employee	Professional	Private employee	Agricultural	No sub occupation	
Traditional Craft	51 (34.00)	2 (1.00)	0 (0.00)	11 (7.00)	5 (4.00)	11 (7.00)	70 (48.00)	150 (100)
Traditional motorized boat	57 (38.00)	3 (2.00)	4 (3.00)	9 (6.00)	7 (5.00)	6 (4.00)	64 (43.00)	150 (100)
<b>Total</b>	<b>108</b> <b>(36.00)</b>	<b>5</b> <b>(2.00)</b>	<b>4</b> <b>(1.00)</b>	<b>20</b> <b>(7.00)</b>	<b>12</b> <b>(4.00)</b>	<b>17</b> <b>(6.00)</b>	<b>134</b> <b>(45.00)</b>	<b>300</b> <b>(100)</b>

Source: As ex ante

### Earning Members in the Family-wise distribution of the Respondents

The number of earning members in the fishermen families vary from a minimum of one to a maximum of three. Table 4 elucidated that among 300 samples, 165 respondents families (55.00%) are having one earning member each. 98 respondents families (32.50%) are having two earning members each and 38 respondents families (12.50%) are having three earning members per family.

**Table: 4**

**Earning Members in the Family-wise distribution of the Respondents**

Craft Group	Earning Members			Total
	1	2	3	
Traditional Craft	88 (59.00)	48 (32.00)	14 (9.00)	150 (100.00)
Traditional motorized boat	76 (51.00)	50 (33.00)	24 (16.00)	150 (100.00)
<b>Total</b>	<b>164</b> <b>(55.00)</b>	<b>98</b> <b>(32.50)</b>	<b>38</b> <b>(12.50)</b>	<b>300</b> <b>(100.00)</b>

Source: As ex ante

### Fish Marketing in the Marine Fisheries Sector

Inadequate arrangements for systematic marketing of fish, prevalence of numerous middlemen, inadequate infrastructure that brings the producer and the consumer together and lack of transportation facilities for organized marketing of fish are some of the important reasons for the low returns from the traditional fishing enterprise. The important fish consumption centres available cannot be quickly transported in the absence of good roads and transportation. In urban areas are sold by fish in a the interior markets. Moreover, the fishermen are a highly disorganized group and hence, they are incapable of making their own arrangements to transport fish in bulk to the urban centres. This facilitated the entry of the trader-cum-money lender in the fishing trade and exploits them in several ways. Information regarding the existence of different modes of selling in each village has been collected. It is noticed that in certain villages fish is sold partly by weight and partly by lots. In some other villages fish sales are by counting. Weightment or no weightment, the middlemen exploit the fishermen in all possible ways. In most of the sample areas studied, the important marketing centres are located beyond 25 to 30 miles. The other important fish consumption centres like, madras, Calcutta etc., are located far from the fishing areas and these markets are quite inaccessible for them. The only alternative for the fishermen is to sell their fish to the local trader even though his terms and conditions are not favorable.

### Agencies Marketing fish

It has been observed that the fish marketing is conducted through different agencies namely, the trader, trader-lender (local), Trader-lender (out-sider), fisheries corporation, direct sales through their women-folk and others (include small traders).

The trader is a specialized business man in fish marketing and sales. Most often he belongs to a non fishermen community and generally, resides in a nearby town or city. He has his own transportation net work for the transportation of fish from the shore to the urban centres where the fish is sold locally or exported within or outside the country. He has his own group of skilled workers who have the necessary expertise and knowledge in processing and preservation of fish. He enters into a contract for the sale of prawn to the foreign countries. Most often, he enters in to contract with the fishermen to purchase their fish, especially the prawn regularly. In the absence of any other organized agencies or the cooperative for fish marketing, the fishermen

are left with no other alternative except to depend upon the trader. In spite of the various methods of cheating adopted by the trader in price fixation, weighment etc., the trader is still popular among the fishermen for the purchase of their fish.

Information regarding various types of agencies engaged in fish marketing has been collected from all the sample areas. Each of the sample household is asked to indicate the type of agency to whom their fish is generally sold. The sample households are classified according to the type of agency to whom their fish is sold (Table 5). The data reveal that the trader is dominating the fish marketing in all the sample villages. The proportion of fishing households in the sample exclusively selling their fish to the trader varies between 32% to 72% in the sample villages and urban areas are selected for the study. There are several reasons for their popularity in fish marketing. He makes immediate cash payments for the fish purchases. He maintains continuous contacts with the fishermen and he is watchful of their fish catch every day. The fisherman who is eager to sell away their fish catch immediately after landing finds no one in the shore except the trader to buy all his fish catch.

**Table 5**

**Distribution of Fishing Households according to the Type of Agency through Whom Fish is Marked**

Village	Trader	Trader Lender (local)	Trader Lender (non-local)	Direct	Other	Total
<b>Nakkapalli (Rural)</b>						
Rajayya peta		28 (56)	--	7 (14)	3 (6)	12 (24) 50 (100)
Bangaramma peta		32 (64)	4 (8)	--	--	14 (28) 50 (100)
D.L Puram		36 (72)	1 (2)	2 (4)	4 (8)	7 (14) 50 (100)
<b>Visakhapatnam (Urban)</b>						
Pedajalari peta		19 (38)	16 (32)	3 (6)	6 (12)	6 (12) 50 (100)
Kottajalari Peta		23 (46)	12 (24)	3 (6)	5 (10)	7 (14) 50 (100)
Mangamari peta		16 (32)	8 (16)	--	6 (12)	20 (40) 50 (100)
154	41	15	24	66	300	

Source: Field Survey

**Fish marketing by Traders**

There are other categories of fish traders who has all the characteristics mentioned above besides his regular money landing business. They are classified in to two categories. The local money lender-cum-trader and the non-local money-lender-cum-traders. The local trader-cum-money-lender lives within the villages or in a nearby village and maintains constant touch with his customer fishermen by way of not only purchasing the fish but also by making liberal advances in time of need. The other type of trader-cum-money lender lives within or in a nearby village and maintains continuous touch with the fishermen by leading money with an implicit understanding that the fishermen sell their daily fish catch to them. They recover the loans advanced to them from the sale proceeds of their fish. Both categories adopt almost similar practices of cheating by charging high rates of interest in price fixation and weighments. Most often the fishermen surrender their fish catch at a prefixed price. The gullible fishermen has no option to bargain for a higher prices even though the ruling price in the nearby urban centres is relatively higher. The fishermen act as bonded labours for the local

middlemen and traders. The local trader-money lenders occupy a second place in fish marketing next to the trader.

In certain areas either the local trader or the non-local trader alone is operating. For example, in Rajayyapeta village only non-local traders are present. In Bangaramma peta and D.L Puram villages the local trader-cum-money lender is present. However, the total number of sample households reporting sales to both categories put together are found to be relatively lower when compared to the total sales to the traders. Only in Urban areas Peda jalari pete 32% of the sample households reported sales to their local trader money lenders. In Kotta jalari Peta 24% of the households reported sales to the local trader and in Mangamari Peta 16% of the sample households reported fish sales to this category of traders.

### **Direct sales by the fishermen families**

Another important method of fish marketing is by way of direct sales by the fishermen to the consumer. The women folk in the fishermen families are excellently suited for this job. This form of fish marketing is found in almost all the Urban areas are located close to the towns and cities. In the joint family where two or more working fishermen are living together fishing operations are conducted by them and the women folk in these families take the fish to a near-by town and sell it to the consumers. The marketing expenses incurred by them is very little. It is possible only when the fish catch is very small. This type of practice is present only in selected Urban areas are like Peda jalari Peta, Kotta jalari Peta and Mangamari Peta. These areas are linked with the nearest urban centres by roads as well as by regular buses. In all the villages this system of marketing is not possible because of long distance of the urban centres from the fishing villages and also due to lack of proper roads and transportation net work.

There are different modes of marketing practices prevalent in the fishing villages. There are certain local women who specialise mainly in fish marketing. They are locally known as “mara kathe” and “Bera kahe”. The mara kathe is defined as one who regularly buys fish from the local fishermen and sell it to “Bere kathe” for a higher price. The “Bera kathe” who buys fish from mara kathe sells fish to the consumer in the urban markets. There is a third group of marketing agents who buy fish from the fishermen on the shore and transport it to the nearest market centres on cycles. This group of traders belongs either to the fishermen community or to other communities. They buy fish from the fishermen in auction. The highest bidder gets the fish and the proceeds of the bidding fish will be paid by them to the fishermen on the spot. However, this practice is present almost in all the villages as most of the sample areas are located within 10 to 25 kms. From the nearest urban centers.

### **Marketing of fish through Institutions**

Neither the fisheries corporation nor the fisheries Department of the Government are of no avail to the fishermen in respect of organized sale of fish. Non of the Urban areas are provided with storages and marketing facilities. Rural areas are not provided this type of facilities. The Government Fisheries Development which is mainly responsible for helping the fishermen is of no help for them. They come in to picture occasionally wherever the fishing equipment supplied by the Government is to be distributed. Even the Inspectors and the other field staff who are expected to guide the fishermen in fish processing, preservation and marketing are not extending any assistance, technical or otherwise. They are mostly pre-occupied with the submission of reports and returns on vital statistics of fishing population. It was observed that either the Government agencies or the other organizations like the Fisheries Corporation and the local Cooperatives have miserably failed in the field of marketing of fish.

### **The agency through whom their prawn is sold**

Fishermen households are also classified according to the agency to whom their prawn catch is sold (Table 6). It is noticed that most of the prawn catch on any day is sold mostly for the trader-lenders either local or non-local. The proportion of household selling prawn to the traders is found to be relatively small except in D.L Puram. where the proportion of households selling prawn to the traders is found to be 78% and

10% respectively. In all other villages and Urban areas most of the prawn catch is sold to the trade-lenders. Households reporting sales under other category belong to the sample type as most of the other types of traders like “mara Kethe” and “Bara Kathe” are classified under this category. Thus the data clearly reveal that the trader-lenders are mostly interested in buying the prawn catch and the sale proceeds of the prawn are adjusted towards their prior advances.

Table – 6

**Classification of the Sample Households According to the Agency Through Whom Their Prawn is Sold**

Village	Trader	Trader Lender (local)	Trader Lender (non-local)	Direct	other	Total
<b>Nakkapalli (Rural)</b>						
<b>Rajayya peta</b>	27 (54)	9 (18)	8 (16)	--	6 (12)	50 (100)
<b>Bangaramma peta</b>	15 (30)	20 (40)	11 (22)	--	4 (8)	50 (100)
<b>D.L Puram</b>	39 (78)	4 (8)	1 (2)	4 (8)	2 (4)	50 (100)
<b>Visakhapatnam (Urban)</b>						
<b>Pedejalari peta</b>	--	17 (34)	22 (44)	8 (16)	3 (6)	50 (100)
<b>Kottajalari Peta</b>	5 (10)	16 (32)	6 (12)	14 (28)	9 (18)	50 (100)
<b>Mangamari peta</b>	8 (16)	17 (34)	8 (16)	6 (12)	11 (22)	50 (100)
94	83	56	32	35	300	

Source: Field Survey

### Fishermen attitudes towards Fish/Prawn Price

The fishermen households were asked to indicate where the prices received from different fish traders are reasonable. Households were classified according to the type of answers given. Those who expressed satisfaction of the price received are classified under “Yes” category and those not satisfied are classified under “No” category (Table 7). Other households who did not indicate either satisfaction or dissatisfaction with the prices received are classified under the third category namely “No” awareness”. It is observed that a majority of the sample households in each of the village expressed dis-satisfaction with the prices received for prawn and fish. In Urban areas satisfaction with the prices received for prawn and fish. A significant proportion of the sample households indicates ‘no awareness’ of Rural and Urban areas.



Table – 7

**Classification of Responses Sample Households According to the Degree of Satisfaction of Fish/  
Prawn Price**

Village	Yes	No	No Awareness	Total
<b>Nakkapalli (Rural)</b>				
<b>Rajayya peta</b>	4 (8)	32 (64)	14 (28)	50 (100)
<b>Bangaramma peta</b>	8 (16)	22 (44)	20 (40)	50 (100)
<b>D.L Puram</b>	5 (10)	41 (82)	4 (8)	50 (100)
<b>Visakhapatnam (Urban)</b>				
<b>Pedajalari peta</b>	25 (50)	16 (32)	9 (18)	50 (100)
<b>Kottajalari Peta</b>	38 (76)	5 (10)	7 (14)	50 (100)
<b>Mangamari peta</b>	21 (42)	16 (32)	13 (26)	50 (100)
<b>Total</b>	101	132	67	300

Source: Field Survey

### Conclusion :

Fishing households, particularly in the fishing communities are the most disadvantaged group. They have a very low status in the society. There are about 6.05 lakhs fishermen Andhra Pradesh. Their contribution to the development of small-scale fisheries is not recognized and compensated properly due to the social and cultural discrimination against them. They have acquired a secondary status in social life, economic activities and decision-making. A number of socio-economic constraints limit their work productivity and role in employment and income generating activities. They have the potential to play an active and sometimes dominant role in fishing related activities.

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