



A Study on Income and Expenditure Pattern of Fishermen During Fishing Holiday Period in Kakinada Harbour, Andhra Pradesh

Dr. A. Venu^{1*}, Ms. M. Vara Lakshmi², Dr. D. Asha Latha³

^{1*}Ward Welfare & Development Secretary, GVMC, Visakhapatnam, Andhra Pradesh, India

²Research Scholar, Dept. of Economics, Andhra University, Visakhapatnam, Andhra Pradesh, India

³Associate Professor, Dept. of Economics, Andhra University, Visakhapatnam, Andhra Pradesh, India

*Corresponding Author: Dr. A. Venu

Article History	Abstract
<p>Received: 13 June 2023 Revised: 23 Sept 2023 Accepted: 13 Dec 2023</p>	<p>India is the second leading fish producing country in the world accounting for 7.56 per cent of global production. Fisheries sector plays an important role in the Indian economy through contributing national income, employment creation; promote exports, provides food and nutritional security. Andhra Pradesh has favorable agro-climatic conditions for the growth of fisheries and aquaculture sector. The State is contributing about 29.7% of national fish production and is a major exporter of shrimp in India with share of 40.4% in total value of sea food exports of the country during 2019-20. The sector is providing employment to nearly 26.5 lakhs. Andhra Pradesh has 26 coastal districts. The present study analyzing the socio-economic status of fishermen and various problems encountered by the fishermen during fishing holiday period in the study area. To analyze the income and expenditure pattern and asset structure of fisher households. This study is confined to Kakinada Harbour Area. A major proportion of the sample respondents were joined in fishing due to poverty i.e. 45 per cent, a higher proportion of the respondents (67%) are living in nuclear family, Major proportion of respondents had 11-20 years of fishing experience (42%), followed by 21-30 years (24%), 1-10 years (17%) and more than 30 years (16%), 97 per cent of respondents are living in the pucca and semi-pucca houses.</p> <p>Keywords: Income, Expenditure, Fishermen, Fishing Holiday, Kakinada Harbour.</p>
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Introduction:

India is the second leading fish producing country in the world accounting for 7.56 per cent of global production. Fisheries sector plays an important role in the Indian economy through contributing national income, employment creation; promote exports, provides food and nutritional security. The total fish production in 2020-21 financial year in India is estimated at 14.73 MMTs (Million Metric Tonnes). Fisheries sector has confirmed an outstanding performance with double digit average annual growth of 10.87 per cent since 2014-15 with record fish production of 14.73 MMTs in FY 2020-21. In terms of employment, the sector supports the livelihood of over 28 million people in India especially the marginalized and vulnerable communities. The fisheries sector plays an vital role in the national economy and the sector has been one of the major contributors of foreign exchange earnings, with India being one of the leading seafood exporting nations in the world. During FY 2020-21, export of Marine Products stood at 1.15 MMT and valued at Rs. 43,717.26 Crores despite the market uncertainties raised by the Covid-19 Pandemic outbreak. Andhra Pradesh State is contributing about 29.7% of national fish production and is a major exporter of shrimp in India with share of 40.4% in total value of sea food exports of the country during 2019-20. The sector is providing employment to nearly 26.5 lakhs.

The main aim of the department is to sustain the fish production through maximum utilization of available water resources, promoting welfare of fishermen, to address the serious gaps in the infrastructure for value chain and to promote domestic fish consumption in the state.

Statement of the problem:

A uniform holiday also known as annual ban or fishing holiday to facilitate conservation has been declared for fishing in the EEZ (Exclusive Economic Zone) on both the East Coast and West Coast. While the ban will be implemented on the East Coast, including Puducherry and Andaman and Nicobar Islands, from 15th April to 14th June, it will come into effect on the West Coast, including Lakshadweep islands, from 1st June to 31st July.

The number of mechanised boats being operated in Andhra Pradesh which has a 974 km coastline, the second largest after Gujarat from Visakhapatnam, Kakinada, Machilipatnam, Kalingapatnam and other jetties is estimated at around 4,000. To alleviate the production trend in a sustainable way and to conserve the dwindling marine resources, the 61 days monsoon trawl ban (15th April to 14th June) was introduced in Andhra Pradesh in 2001. The seasonal fishing ban has been one of the very few significant management measures for the sustenance of the marine resources since its preamble. However, remarkable increase in marine fish production was achieved post implementation of ban, yet, it had generated issues in employment, income generation and poverty of fishermen during the ban period. We made an attempt to understand the socio-economic impact of fishing holiday on the livelihoods of fishermen in Kakinada harbour area. The overall employment loss and loss in labour income during the ban period was also evaluated. The fishermen constraints during the ban have also been studied and suggestions have given to improve the livelihoods of the fishermen in the study area. Even though fishing sector occupies a vital position in Indian economy, most of the fishermen are living in poverty. They are economically backward. They don't have permanent and regular income. The present study also analyzing various problems encountered by the fishermen in Kakinada harbour area.

Objective of the study:

1. To examine the socio-economic conditions of the fishermen community in Kakinada Harbour of Andhra Pradesh.
2. To investigate the problems of fishing holiday faced by fishermen.
3. To examine the employment scenario during the fishing holiday.
4. To examine the government policies to help the fishermen in fishing holiday including problems faced by them.
5. To suggest appropriate policy measures to improve the conditions of fishermen in the study area.

Methodology of the study:

To achieve the above objectives the entire study is based on both primary as well as secondary data. The secondary data was collected from books and journals. The study is based on the field survey conducted with the help of a well-structured questionnaire and interviews with the respondents in the study area. By applying simple random sampling method, the sample respondents are selected from the secondary data. The primary data is collected from sample of 225 fishermen & fisher women in the study area.

Period of Study:

The primary data is collected during 15th April, 2021 to 14th June, 2021.

Background characteristics of the sample respondents:

In this section an attempt is made to analyse the socio-economic and demographic characteristic features of the selected sample respondents in the study area.

1. Age:

Age-wise classification of the sample respondents is presented in table 1. It indicates that 45 per cent of total respondents belong to 46-60 age group. Among the other age groups, the 31-45 age group respondents constitute 35 per cent, 16-30 age group respondents constitute 17 per cent and more than 60 age group respondents are 3 per cent.

Table – 1 Age-wise classification of the sample respondents

Age group	No. of Persons	Percentage (%)
16-30 Years	38	17.0
31-45 Years	78	35.0
46-60 Years	102	45.0
More than 60 years	07	3.0
Total	225	100.0

Source: Survey data

2. Educational Status:

The statistical information relating to the educational status of the sample respondents is presented in table 2. It indicates that 42 per cent are illiterate. Among the literate respondents, 39 per cent are having primary education, literate without any formal education, secondary and higher educations are 9 per cent, 8 per cent and 2 per cent, respectively. Thus, more than half of the sample respondents have no formal education.

Table – 2 Educational statuses of the sample respondents

Type of Education	No. of Persons	Percentage (%)
Illiterate	96	42.6
Literate with no formal education	20	8.9
Primary Education	87	38.7
Secondary Education	18	8.0
Higher Education	04	1.8
Total	225	100.0

Source: Survey data

Type of House:

Housing is one of the basic necessities of every human being. The information relating to the type of house of the sample respondents presented in table 3. It indicates that, the housing conditions have improved in the study area. Only 3 per cent of sample respondents are living in *kutcha* houses. The remaining 97 per cent of respondents are living in the *pucca* and *semi-pucca* houses. About 90 per cent are living in *pucca* houses and 7 per cent are living in *semi-pucca* houses. This situation can be attributed to the impact of the ongoing governmental housing programmes, as well as improvement in the economic status of fishermen.

Table – 3 Type of House

Type of House	No. of Respondents	Percentage (%)
Pucca House	202	89.8
Semi-Pucca House	17	7.5
Kutcha House	06	2.7
Total	225	100.0

Source: Survey data

Number of Family Numbers:

Table 4 shows the family size of the sample respondents in the study area. Majority of the respondents are having 3-4 members in their family (56%) followed by 5-6 members (27%), 7-8 members (11%) and 1-2 members (5.8).

Table – 4 Number of Family Members

Number of Family Numbers	No. of Respondents	Percentage (%)
1-2 Members	13	5.8
3-4 Members	126	56.0
5-6 Members	61	27.1
7-8 Members	25	11.1
Total	225	100.0

Source: Survey data

Specific reason to join in fishing:

Fishing is a hereditary occupation for most of the coastal population of India. The statistical information relating to the specific reason to join in fishing of the sample respondents has been presented in table 5. A major proportion of the sample respondents were joined in fishing due to poverty i.e. 45 per cent, followed by traditional (39%) and unemployment (16%).

Table – 5 Specific reason to join in fishing

Reason	No. of Respondents	Percentage (%)
Traditional	88	39.1
Unemployment	36	16.0
Poverty	101	44.9
Total	225	100.0

Source: Survey data

Experience in fishing (in years):

The statistical information relating to the fishing experience of the sample respondents has been presented in Table 6. Major proportion of respondents had 11-20 years of fishing experience (42%), followed by 21-30 years (24%), 1-10 years (17%) and more than 30 years (16%).

Table – 6 Experience in fishing (in years)

Experience (Years)	No. of Respondents	Percentage (%)
1-10 Years	39	17.3
11-20 Years	94	41.8
21-30 Years	55	24.4
More than 30 Years	37	16.4
Total	225	100.0

Source: Survey data

Type of Family:

The information relating to the prevailing family system in the study area is presented in table 7. It shows that a higher proportion of the respondents (67%) are living in nuclear family, while only 33 per cent are having joint family system. This information relating to the family system in the study area shows the declining trend of joint family system.

Table – 7 Type of Family

Type of Family	No. of Respondents	Percentage (%)
Nuclear Family	151	67.1
Joint Family	74	32.9
Total	225	100.0

Source: Survey data

Type of House:

Housing is one of the basic necessities of every human being. The information relating to the type of house of the sample respondents presented in table 8. It indicates that, the housing conditions have improved in the study area. Only 3 per cent of sample respondents are living in *kutchha* houses. The remaining 97 per cent of respondents are living in the *pucca* and *semi-pucca* houses. About 90 per cent are living in *pucca* houses and 7 per cent are living in *semi-pucca* houses. This situation can be attributed to the impact of the ongoing governmental housing programmes, as well as improvement in the economic status of fishermen.

Table – 8 Type of House

Type of House	No. of Respondents	Percentage (%)
Pucca House	202	89.8
Semi-Pucca House	17	7.5
Kutchha House	06	2.7
Total	225	100.0

Source: Survey data

Ownership of House:

The data related ownership of house of the sample respondents are shown in the table 9. Due to migration of fishermen from the rural areas of East Godavari to Kakinada town majority of the respondents are staying in rented house. Out of the total respondents, 59 percent of the respondents are staying in rented house with their families and 41 percent of the respondents are staying in own house.

Table – 9 Ownership of House

Ownership of House	No. of Respondents	Percentage (%)
Own House	92	40.9
Rented House	133	59.1
Total	225	100.0

Source: Survey data

Average Monthly Income during Fishing Holiday from other occupations:

The analysis pertaining to the average monthly income during fishing holiday from labour occupation of the sample respondents is presented in the Table 10. The average monthly income during fishing holiday (April 15th to June 14th 2021) is estimated at Rs. 5370. Among total respondents, more than half of the respondents' (61%) average monthly income is less than Rs. 5000. It indicates during fishing holiday the average monthly income of the sample respondents is very low and it badly affected the economic conditions of the fishermen in the study area.

Table – 10 Average monthly income of the sample respondents during fishing holiday from other occupations

Average Monthly Income (Rs.)	No. of Respondents	Percentage (%)
Up to 5000	138	61.3
5001-10000	48	21.3
10001-15000	19	8.5
15001-20000	12	5.3
More than 20000	8	3.6
Total	225	100.0

Source: Survey data

Average Monthly Expenditure during Fishing Holiday (Rs.):

The data related to the average monthly expenditure of the selected sample respondents during fishing holiday period i.e. 15th April to 14th June 2021 is presented in the Table 11. It shows that, the average monthly expenditure during this period is estimated at Rs. 16623 it more than the average monthly expenditure during fishing period. The average monthly expenditure among the sample respondents during fishing holiday period is very high because of they are planned to celebrate the ceremonies, marriages, festivals/rituals etc. in fishing holiday period. And also, they are taking medical treatment for their minor and major health issues during this period. High proportion of the sample respondents borrowed money from different sources during this period for their consumption purpose in the study area.

Table – 11 Average monthly of the sample respondent's expenditure during fishing holiday (Rs.)

Average Monthly expenditure (Rs.)	No. of Respondents	Percentage (%)
Up to 5000	18	8.0
5001-10000	25	11.1
10001-15000	103	45.8
15001-20000	43	19.1
20001-25000	22	9.8
25001-30000	10	4.4
More than 30000	4	1.8
Total	225	100.0

Source: Survey data

Consumption Pattern of the respondents during fishing and fishing holiday:

In macro economics, the Engel curve describes how increases in income affect consumptions. The theory explains that increase in income leads to increase in food consumption immediately and later it declines. Later non-food consumption increases. Table 12 presents changes in the consumption pattern of the fishermen. Increased incomes led to rapid growth of consumption of non-vegetarian, oils, pulses, sugar and milk. This is by and large a welcome feature, keeping in view of the lower nutritional levels of the fishermen.

As regards changes in nonfood items, the fishermen are increasing spending a higher amount on Festivals & Rituals (378%), Cloth (237%), Ceremonies/Functions (205%), Alcohol (155%), Healthcare (135%), entertainment (107%) and cosmetics (76%). It is highly discouraging to note that there is an increase in expenditure on smoking and alcohol by about 209 per cent during fishing holiday in the study area.

Table – 12: Impact on Consumption Pattern

Particulars	During Fishing Period (June 15 - April 14)	During Fishing holiday Period (April 15 - June 14)	Change in Average Value (Rs.)	% of Change in Average Value
A. Food Items (Based on Weekly Consumption - Value in Rupees)				
Cereals	422	857	435	103.9
Pulses	120	245	125	104.2
Milk	147	250	103	70.1
Tea/Coffee	140	236	96	68.6
Sugar	65	118	53	81.6
Vegetables	206	359	153	74.3
Non-vegetarian	400	794	394	98.5
Oil	165	340	175	106.1
Others	325	586	261	80.3
Total	1990	3785	1795	90.2

B. Non-Food Items (Based on Monthly Consumption - Value in Rupees)				
Cloth	1345	4501	3156	234.6
Cosmetics	260	457	197	75.8
Entertainment	380	786	406	106.8
Education	2184	1823	-361	-16.5
Healthcare	3812	8950	5138	134.8
Ceremonies/Functions	1564	4767	3203	204.8
Festivals & Rituals	1090	5220	4130	378.9
Firewood/Fuel	363	610	247	68.0
Smoking	340	526	186	54.7
Alcohol	1565	3985	2420	154.6
Interest & loan payments	3012	4100	1088	36.1
Others (Specify)	1590	2816	1226	77.1
Total	17505	38541	21036	120.2

Source: Survey data

Outstanding Loans of the Respondents (Amount in Rs.):

Table 13 presents the outstanding loans of the respondents during fishing holiday period in the study area. Earlier, money markets are dominated by money lenders but these patterns have changed now. Among total loan amount, 33 per cent and 35 per cent of the amount borrowed from commercial banks in fishing and fishing holiday period respectively, 28 per cent and 23 per cent from friends and relatives, money lenders (16% and 20%), rural banks (13% and 12%) and cooperative banks (11% and 10%). However, money lenders still rule the roost, meeting the needs of the fishermen by 20 per cent of the total outstanding loans.

Table – 13 Outstanding loans of the respondents (Rs.)

Source of Loan	Average Loan Amount	Percentage (%)
Friends and Relatives		
Money Lenders	20153	20.0
Rural Banks	12507	12.4
Co-operative Banks	10006	9.9
Commercial Banks	35460	35.1
Total	100975	100.0

Source: Survey data

Did your children wish to join fishing?

Table 14 shows that opinion of the sample respondents about wish to join their children in fishing. It is noticed that all most all the respondents (95%) are not interested to join their children in fishing because they are the socially isolated population. The prominent reason for the isolation is the outlook of the society towards the fisherman. Fishing and related activities are universally reserved for low-caste segment of the society. And only 5 per cent are willing to join fishing for their livelihood in the study area. Among the reasons for not wish to join in fishing, the irregular income source (38%) followed by fishermen not getting respect in the society (37%) and the risk factor (25%).

Table – 14 Wish to join children in fishing

Respondents Opinion	No. of Respondents	Percentage (%)
Yes	11	4.9
No	214	95.1
Total	225	100.0
If no, what is the reason?		
Reason	No. of Respondents	Percentage (%)
Irregular Income Source	81	37.8
No respect in the society	80	37.4
Risk Factor	53	24.8
Total	214	100.0

Source: Survey data

What are the problems faced by you?

Table 15 presents the nature of problems faced by the fishermen, as reported by the respondents. As many as 206 (92%) respondents reported that high cost of production/high diesel price and exploitation from

commission agents. It is also reported that 84 per cent of the respondents reported less price given to their product in the market, 81 per cent of the respondents reported that lack of basic facilities at fishing harbor and 70 per cent of the respondents reported that lack of work during fishing holiday.

Table – 15 Type of problems faced by the fishermen

Respondent Opinion	No. of Respondents	Percentage in total of 225 respondents	Percentage in total of 1546 responses (problems)
Exploitation from commission agents (Middle Men)	206	91.6	13.32
Less price in the market	188	83.6	12.16
Lack of work during fishing holiday period	157	69.8	10.16
High cost of production/high diesel price	206	91.6	13.32
Lack of basic facilities at fishing harbor	182	80.9	11.77
Lack of Government Support	160	71.1	10.35
Lack of Storage Facility at Fishing Harbor	116	51.6	7.50
Lack of Marketing Facilities	104	46.2	6.73
Lack of housing facility	112	49.8	7.24
Unfavourable Climatic Conditions	115	51.1	7.44
Total Problems expressed by 225 respondents	1546	-	100.0

Source: Survey data

Suggestions given by the respondents:

The statistical information relating to the suggestions given by the respondents for improvement of their livelihood in the study area is presented in table 16. It indicates that major suggestions like provide work instead of monetary compensation during fishing holiday period, removal of the middlemen, government should provide the minimum support price (MSP) for their product, provide the basic facilities at fishing harbor, provide the storage facilities for fish products, provide the financial support during unfavourable climatic conditions, enhancement of marketing facilities, provide financial support to boat repairs, provide housing facility to fishermen etc. given by the respondents.

Table – 16 Suggestions given by the respondents

Respondent Opinion	No. of Respondents	Percent in total of 225 respondents	Percent in total of 1552 responses (problems)	Cumulative Percent
Remove the Middle men	210	93.3	13.5	13.5
Provide the MSP	175	77.8	11.3	24.8
Provide work instead of monetary compensation during fishing holiday period	169	75.1	10.9	35.7
Provide the basic facilities at fishing harbor	182	80.9	11.7	47.4
Enhance the diesel subsidy	169	75.1	10.9	58.3
Provide the Financial Support for boat repairs	162	72.0	10.4	68.7
Provide the Storage Facilities for fish products	136	60.4	8.8	77.5
Enhancement of Marketing Facilities	114	50.7	7.3	84.8
Provide Housing Facility	110	48.9	7.1	91.9
Provide the Financial Support during unfavourable Climatic Conditions	125	55.6	8.1	100.0
Total Suggestions expressed by 225 respondents	1552	-	100.0	-

Source: Survey data

Major findings of the study:

The following are some of the major findings of the study:

- ☞ Majority (45 percent) respondents are in the age group of 46-60 years followed by the 31-45 years age group (35%)

- ☞ More than half of the sample respondents have no formal education.
- ☞ A major proportion of the sample respondents were join in fishing due to poverty i.e. 45 per cent, followed by traditional (39%) and unemployment (16%).
- ☞ Major proportion of respondents had 11-20 years of fishing experience (42%), followed by 21-30 years (24%), 1-10 years (17%) and more than 30 years (16%).
- ☞ Only 3 per cent of sample respondents are living in *kutchha* houses. The remaining 97 per cent of respondents are living in the *pucca* and *semi-pucca* houses.
- ☞ Majority of the respondents are having 3-4 members in their family (56%) followed by 5-6 members (27%), 7-8 members (11%) and 1-2 members (5.8).
- ☞ About 97 per cent of the respondents are having latrine facility in their house.
- ☞ A highest extent of (91%) total respondents are having white ration card in the study area.
- ☞ Among the total respondents 80 per cent have not possessed with any land.
- ☞ During the fishing holiday period the number of work days is very less i.e., 23 days out of 61 days.
- ☞ The average monthly income during fishing holiday (April 15th to June 14th 2021) is estimated at Rs. 5370.
- ☞ The average monthly expenditure during this fishing holiday period is estimated at Rs. 16623 it more than the average monthly expenditure during fishing period.
- ☞ As regards changes in non-food items, the fishermen are increasing spending a higher amount on Festivals & Rituals (378%), Cloth (237%), Ceremonies/Functions (205%), Alcohol (155%), Healthcare (135%), entertainment (107%) and cosmetics (76%).
- ☞ It is very interesting to note that the tele-density among the sample respondents in the study area is 92 per cent, it is more than India's overall tele-density i.e. 88% (June, 2021).
- ☞ The calculation of ratio of expenditure to income during fishing holiday period reveals that it is more than one. This indicates that the sampled households are spending more than what they are earning, and thereby apparently falling in the dept trap.
- ☞ The reason for the increasing debt burden in the fishing community is the majority of the loans (28%) are taken from money lenders with high rate of interest.
- ☞ It is noticed that all most all the respondents (95%) are not interested to join their children in fishing due to the irregular income source, fishermen not getting respect in the society and the risk factor.
- ☞ As many as 206 (92%) respondents reported that high cost of production/high diesel price and exploitation from commission agents etc.

Suggestions for improvement of livelihood of fishermen in the study area:

The following suggestions are made based on the study findings:

- ✚ The government should provide work instead of monetary compensation during fishing holiday period.
- ✚ The government should come forward to establish cold storage and freezing plant to cater to the needs of the fishermen living in and around Kakinada Harbour Area.
- ✚ Government should take necessary action to control the exploitation of fishermen by the middlemen.
- ✚ Government should enhance the diesel subsidy.
- ✚ Government should provide the minimum support price (MSP) for their product.
- ✚ The government should come forward to enhancement of marketing facilities.
- ✚ The government must provide sufficient financial facilities to fishermen at low rate of interest.
- ✚ The government must provide fishing equipments to the fishermen.
- ✚ The people should be given awareness about the availability of educations etc.

Conclusion:

Fisheries sector occupies very important place in the socio-economic development of the country. It provides employment opportunity to millions of the people directly and indirectly. The fishermen community witch engaged in fish culture and fishing activities are poor thus they are unable to adopt scientific technology to produce fish at scientific level. It may be concluded that the socio-economic conditions of the fishermen community in the study area is very poor and miserable. Extensive and comprehensive area development programmes for the entire coastal belt is required to improve the socio-economic conditions of the fishing population.

The vast scope of aquaculture development and tourist attraction of several spots of coastal belt should be given priority in the programmes. In this perspective, it is better to form a Coastal Zone Development Authority (CZDA) in each maritime state for development of the coastal region. To improve the living conditions of fishermen, the governments should integrate the agricultural with fish/prawn farming system. Hence, efficient input supply, financial assistance to fisheries, effective fisheries management policies, providing better infrastructural facilities, technical and social support might improve the livelihood of the fishermen, which will eventually increase the overall fisheries productivity of Andhra Pradesh as well as India.

References:

1. Economic Survey 2020-21, Government of India.
2. Socio-Economic Survey- 2020-21, Government of Andhra Pradesh.
3. Hand Book of Statistics, East Godavari District-2019.
4. <https://www.oecd.org/employment/covid-19.htm>
5. https://dof.gov.in/sites/default/files/2021-02/Final_Book.
6. www.thehindu.com
7. www.fao.org
8. www.wikipedia.org
9. www.fisheries.ap.gov.in
10. www.indiawaterportal.org
11. <https://www.frontiersin.org/articles/10.3389/fmars.2021.685808/full>
12. <https://timesofindia.indiatimes.com/readersblog/small-thoughts/impact-of-covid-19-on-employment-in-india-33336/>