

# An Analysis Of The Livelihood Of Fisherfolk On Rameswaram Island

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**Abstract- — The fishing industry in Rameshwaram, a coastal town in Tamil Nadu, India, is facing significant challenges, including declining fish stocks, rising operational costs, and regulatory restrictions. This study aims to identify and analyze the existing livelihood options available to the fishermen community in Rameshwaram, with a focus on understanding the socio-economic implications of these options. A mixed-methods approach was employed, combining surveys, interviews, and focus group discussions with fishermen and other stakeholders. The study found that fishermen in Rameshwaram have diversified their livelihood options beyond traditional fishing, including fish processing and marketing, tourism-related activities, and alternative livelihoods such as agriculture and small-scale industries. However, these options are often characterized by low incomes, limited job security, and inadequate social protection. The study highlights the need for targeted interventions to promote sustainable livelihoods for fishermen in Rameshwaram, including vocational training, credit facilities, and social protection programs. The findings of this study have important implications for policymakers, development practitioners, and researchers working on livelihood promotion and poverty reduction initiatives in coastal communities.**

**Keywords: Fishermen community, Livelihood options, Rameshwaram, Coastal development, Poverty reduction.**

## I. INTRODUCTION

Rameswaram, a small island town located in the Ramanathapuram district of Tamil Nadu, India, is home to a significant fishing community. The town's strategic location in the Gulf of Mannar, a rich fishing ground, has made it an attractive destination for fishermen from all over India. However, the fishing industry in Rameswaram is facing numerous challenges, including declining fish stocks, rising operational costs, and regulatory restrictions, which are affecting the livelihoods of fishermen.

The fishing community in Rameswaram is one of the most vulnerable groups in the country, with limited access to education, healthcare, and other social services. The community is heavily dependent on the fishing industry, with few alternative livelihood options available. The decline of the fishing industry in Rameswaram has resulted in significant economic and social impacts on the community, including poverty, unemployment, and migration. As a result, the fishermen in Rameswaram are in dire need of improved access to fishing grounds, increased income, job security, and access to social services.

Furthermore, the fishermen in Rameswaram require alternative livelihood options to supplement their income and reduce their dependence on fishing. This could include engaging in aquaculture, fish processing and marketing, and other industries. However, the lack of access to credit, training, and other resources has limited the ability of fishermen to diversify their livelihoods. Additionally, the implementation of the Marine Protected Area (MPA) in the Gulf of Mannar has further restricted the access of fishermen to fishing grounds, exacerbating the challenges faced by the community.

The impacts of climate change are also being felt by the fishing community in Rameswaram. Changes in fish migration patterns and the frequency of extreme weather events have affected the livelihoods of fishermen, making it increasingly difficult for them to earn a living. The rising operational costs, including the cost of fuel and gear, have also added to the challenges faced by the community.

Overall, the fishing community in Rameswaram is facing significant challenges that affect their livelihoods and well-being, and addressing these challenges will require a comprehensive approach that takes into account the needs and

concerns of fishermen, as well as the broader social and economic context in which they operate. In recent years, there has been a growing recognition of the need to promote sustainable livelihoods for fishermen in Rameshwaram.

The Government of India has launched several initiatives aimed at promoting the welfare of fishermen, including the National Policy on Marine Fisheries and the Pradhan Mantri Matsya Sampada Yojana. However, these initiatives have had limited success in addressing the livelihood challenges faced by the fishermen community in Rameshwaram.

## II. LITRERATUE REVIEW

Johnson, B., Narayanakumar, R., and Swathi Lekshmi, P. S. (2022). "Economic Performance of Marine Fishing Methods in Ramanathapuram District of Tamilnadu". This study examined the livelihood problems and socio-economic issues faced by the fishing community in Ramanathapuram district. Ramanathapuram district is an important coastal district in Tamil Nadu, known for its significant marine fish landings and the use of raft gears. The study also investigated the economic performance of marine fishing methods in Ramanathapuram district of Tamil Nadu. The researchers focused on the different types of fishing tools used in Ramanathapuram district and their impact on income generation, losses, and other economic indicators. In the mechanized, motorized, and non-mechanized craft-gear combinations, the economic performance of mechanized single-day trawling for fish resources was found to be superior, as it showed the highest capital productivity, labor productivity, net operating income, gross value added, and a lower input-output ratio. In contrast, the economic performance of motorized single-day fishing was not as good as other methods, as the net income per trip was lower.

R. Dinesh, S. Boobalan, C. Anand, and J. Stephen Sampath Kumar (2022). "Socio-economic Elevation through Open Sea Cage Farming: Evidence from Mandapam Region of Tamil Nadu, India". This study reports on the economic level of the Mandapam region fishing community, their expenses, needs, and wants for their daily life. The study mainly found that cage culture guarantees the multiplication of seafood output and revenue generation from a small unit area, compared to significant capital investment-oriented onshore farming technologies. The study also focused on government awareness programs that guide fishermen towards positive thoughts about this valuable technology, which provides higher yields and income to meet alternative livelihood needs and uplift the socio-economic conditions of coastal fisherfolk in Ramanathapuram District, Tamil Nadu. Case studies were undertaken in the region to assess the impact of MCESA, and a

success story of Mr. V. Nagadas, one of the NFDB scheme beneficiaries, is shared here. He implemented cage culture of lobster and earned a total profit of INR 280,000. The farmer's success, along with MCESA's technical guidance and support, is now inspiring other fishermen to adopt the farming practice. R. Sathishkumar<sup>1</sup>, Dr. K. Ramesh kumar<sup>2</sup>, Dr. I sivakumar<sup>3</sup>, S. Muthusami (2020)" MGNREGA's impact on income and employment in seaweeds cultivating households: Pamban village of Ramanathapuram district".in this study view about the Pamban fisherfolk socio economic problem and alternative employment opportunities.

This paper has examined the MGNREGA's Impact on Income and Employment in Seaweeds cultivating Households in Pamban Village of Ramanathapuram District of Tamil Nadu. Research was carried out between 2019 and 2020. Researcher collected from the 100 respondents. They have found the data result for using percentage analyses used simple percentage and average method Both quantitative and qualitative surveys have been conducted for this study. Researcher focused on alternative employment benefit for the people and uplifting their income level. Researcher collected data from maximum of the female candidate. Under this research clearly focused on the MGNREGA scheme benefits. The impact of the scheme on income resulted to increased savings, repayment of loans and ultimately reduction in indebtedness. Therefore, it is concluded that there is a positive impact on employment, wages and income generation after the implementation of MGNREGA. To be continuously successful, a sustained monitoring and social audit of the scheme is inevitable.

Sathishkumar Ramakrishnan, Ramesh Kumar Kulanthaivelu, and K.P. Karthilingam (2021). "Seaweed Production and Price Administration of Seaweed Cultivators in Tamil Nadu".

This study aims to examine the role of price and production administration in seaweed production in Tamil Nadu. The study focuses on the livelihood problems, prices of fish production, and economic levels of fisher folk communities in India and Tamil Nadu. It also aims to provide alternative income during the fishery closure period and meet the growing industrial demand. Seaweed is considered a priority sector in India's fisheries industry. For the purpose of analysis, the researchers collected data from 357 respondents and analyzed it using simple descriptive tables. Percentage analyses were employed to assess the economic feasibility and livelihood status of seaweed farming farmers in Tamil Nadu.

The findings reveal that the majority of seaweed cultivators were well-informed about the welfare initiatives introduced by the Central and state governments. Moreover, most respondents

availed themselves of loan subsidies. The study suggests that policy support, financial incentives, infrastructure development, changes in environmental regulations, market development, capacity building, and training for seaweed cultivators are highly needed to promote seaweed cultivation in India, particularly in Tamil Nadu, due to its rich potential in seaweed resources. Seaweeds are regarded as an essential part of global food security due to their role in mitigating climate change and empowering women. Due to its straightforward culture method, outstanding nutritional profile, and contribution to global climate change mitigation and adaptation measures, recent studies suggest seaweed farming as an alternative to terrestrial agriculture.

### III. OBJECTIVES

The primary objectives of this study are:

- To identify the existing livelihood options available to the fishermen community in Rameshwaram.
- To assess the income levels and job security of fishermen engaged in different livelihood options.
- To analyze the role of government policies and programs in promoting livelihood options for fishermen.
- To identify the challenges and constraints faced by fishermen in accessing alternative livelihood options.

### IV. LIVELIHOOD OPPORTUNITIES

1. **Fishing:** Fishing is the primary livelihood option for many fishermen in Rameshwaram. They engage in various types of fishing, including deep-sea fishing, coastal fishing, and inland fishing.
2. **Aquaculture:** Aquaculture involves the cultivation of fish, shellfish, and other aquatic organisms in controlled environments. Many fishermen in Rameshwaram engage in aquaculture as a supplementary livelihood option.
3. **Fish Processing and Marketing:** Fish processing and marketing involve the processing and sale of fish and fish products. Many fishermen in Rameshwaram engage in fish processing and marketing as a way to add value to their catch.
4. **Tourism:** Tourism is a growing industry in Rameshwaram, and many fishermen are exploring tourism-related livelihood options, such as operating tourist boats or providing accommodation services.
5. **Agriculture:** Agriculture is a significant livelihood option in Rameshwaram, and many fishermen engage in agriculture as a supplementary livelihood option.

6. **Small-Scale Industries:** Small-scale industries, such as food processing, textiles, and handicrafts, provide livelihood opportunities for many fishermen in Rameshwaram.
7. **Service Sector:** The service sector, including jobs in hospitality, transportation, and communication, provides livelihood opportunities for many fishermen in Rameshwaram.
8. **Self-Employment:** Self-employment, including entrepreneurship and small business ownership, is a growing trend among fishermen in Rameshwaram.

### V. GOVERNMENT SCHEME

#### **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

The PMMSY was introduced in 2020 with an earmarked investment of US\$ 2.53 billion (Rs. 20,050 crore), to increase the productivity, production capacity, and area under cultivation and to increase the exports of marine products in India. The Central Government's share in PMMSY is US\$ 1.12 billion (Rs. 9,407 crore), the State's share is US\$ 617 million (Rs. 4,880 crore), and the beneficiaries' share is US\$ 729 million (Rs. 5,763 crore). The objective of the scheme is to increase fish production to 22 million MT by 2024-25, enhance aquaculture productivity to 5 tons per hectare and increase the GVA contribution of the fisheries sector to 9% by 2024-25.

#### **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)**

In 2018-19, the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying formed a fund called the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying (FIDF) to meet the infrastructure requirement of the fisheries sector. The total fund size is US\$ 951 million (Rs. 7,522.48 crore). The objective of the fund is to provide concessional finance to eligible entities like State Governments/Union Territories and State entities for developing the identified fisheries infrastructure through loaning entities namely - National Cooperatives Development Corporation (NCDC), National Bank for Agriculture and Rural Development (NABARD), and all scheduled banks.

| RAMANTHAPURAM DISTRICT |     |                |           |                      |        |           |        |       |
|------------------------|-----|----------------|-----------|----------------------|--------|-----------|--------|-------|
|                        |     | ACTUAL FISHING |           | FISH SEED COLLECTION |        |           |        | Total |
|                        |     | Part Time      | Full Time | Full Time            |        | Part Time |        |       |
|                        |     |                |           | Male                 | Female | Male      | Female |       |
| Keezhamental           | 361 | 33             | 0         | 0                    | 0      | 0         | 0      | 33    |
| Chinna Ervad           | 359 | 308            | 0         | 0                    | 0      | 0         | 0      | 308   |
| Melamuntal             | 145 | 194            | 4         | 0                    | 0      | 0         | 0      | 198   |
| Mookaiyur              | 319 | 674            | 774       | 1                    | 2      | 37        | 113    | 359   |
| Narippaiyur North      | 271 | 271            | 306       | 5                    | 0      | 2         | 4      | 588   |

Source: Marine Fisheries census 2016

## VI. SIGNIFICANCE OF THE STUDY

This study is significant because it will provide valuable insights into the livelihood challenges faced by the fishermen community in Rameshwaram. The study will also provide recommendations for policymakers, development practitioners, and other stakeholders to promote sustainable livelihoods for fishermen in Rameshwaram. The findings of this study will have important implications for the development of effective strategies to address the livelihood challenges faced by the fishermen community in Rameshwaram.

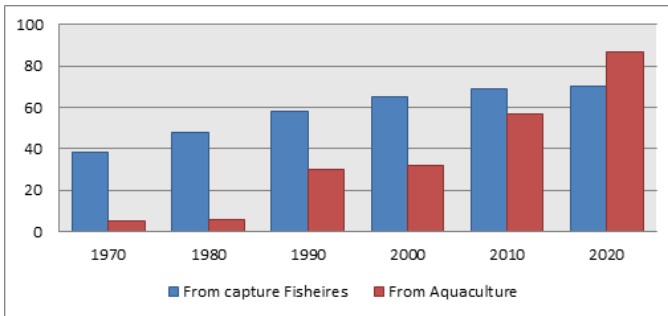
### Research Design:

This study will employ a mixed-methods approach, combining both qualitative and quantitative data collection and analysis methods. The study will use a combination of surveys, interviews, and focus group discussions to collect data from fishermen and other stakeholders in Rameshwaram.

### Data Collection Methods:

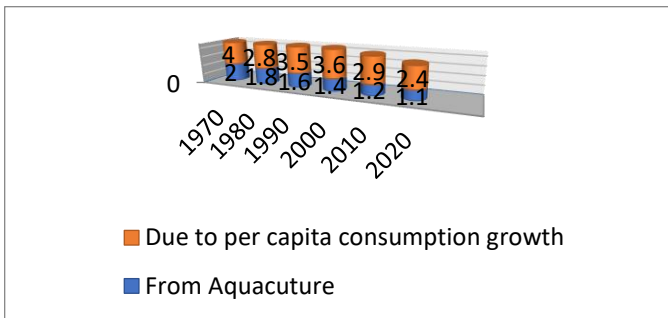
- **Surveys:** A survey questionnaire will be administered to a sample of fishermen in Rameshwaram to collect data on their demographic characteristics, livelihood options, and socio-economic status.
- **Interviews:** In-depth interviews will be conducted with key informants, including fishermen, fish traders, and government officials, to gather more detailed information on the livelihood options and challenges faced by fishermen in Rameshwaram.
- **Focus Group Discussions:** Focus group discussions will be conducted with groups of fishermen to gather information on their collective experiences and perceptions of the livelihood options and challenges faced by fishermen in Rameshwaram.

### VII. RELATIVE CONTRIBUTIONS OF AQUACULTURE AND CAPTURE FISHERIES TO AQUATIC FOODS AVAILABLE FOR HUMAN CONSUMPTION



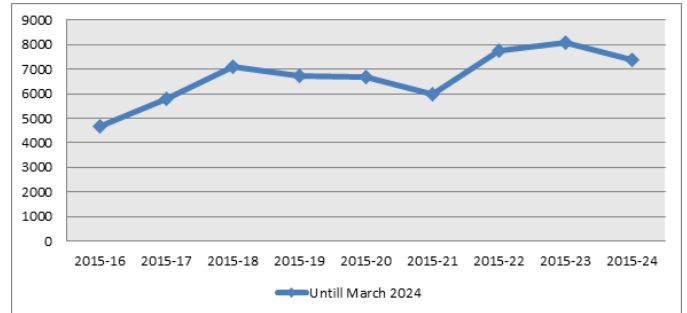
Source: food and agriculture organization of the United Nations

### VIII. AVERAGE ANNUAL GROWTH IN AQUATIC FOOD CONSUMPTION



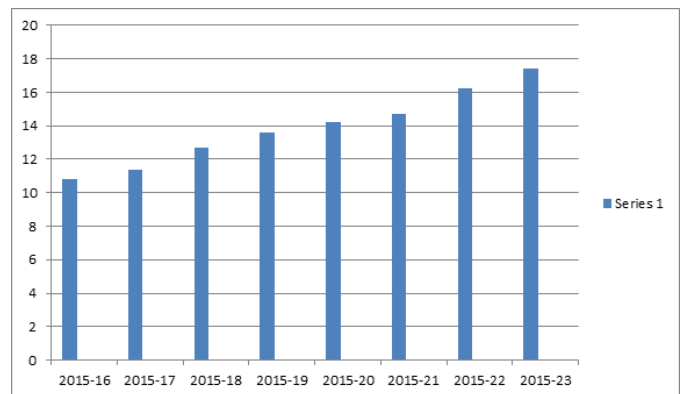
Source: food and agriculture organization of the United Nations

### IX. EXPORT TREND OF MARINE PRODUCTS FROM INDIA (VALUES IN US\$ MILLION)



Source: Marine Product Export Development Authority

### X. INDIA MARINE AND INLAND FISH PRODUCTION (million tons)



Source: Department of Fisheries, Gol.

#### Sampling Strategy:

The study will use a combination of random and purposive sampling strategies to select the sample of fishermen and other stakeholders in Rameshwaram. The sample will be selected from a list of registered fishermen in Rameshwaram, and will include a mix of fishermen from different age groups, education levels, and livelihood options.

#### Sample Size:

The sample size will be determined based on the research objectives and the availability of resources. A minimum sample size of 125 fishermen will be selected for the survey, and 20-30 key informants will be selected for the in-depth interviews and focus group discussions.

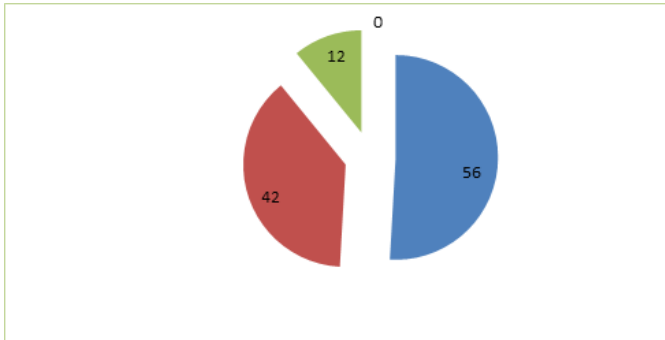
## XI. TOOLS OF ANALYSES

The data has been analyzed the researcher using various statistical data multiple techniques, like frequency, percentage calculated variable in Chi-square method. The data collected through interview schedule and secondary data have been analyzed with help of various statistical tools.

### Analyses The Data And Interpretation:

Demographic profile:

#### Gender



Source: Primary Data

Among the participants of the current study, about 100 participants had responded. Most of the respondents has male, 22% of the respondents were Female and rest of the participants were others.

#### Matril Status

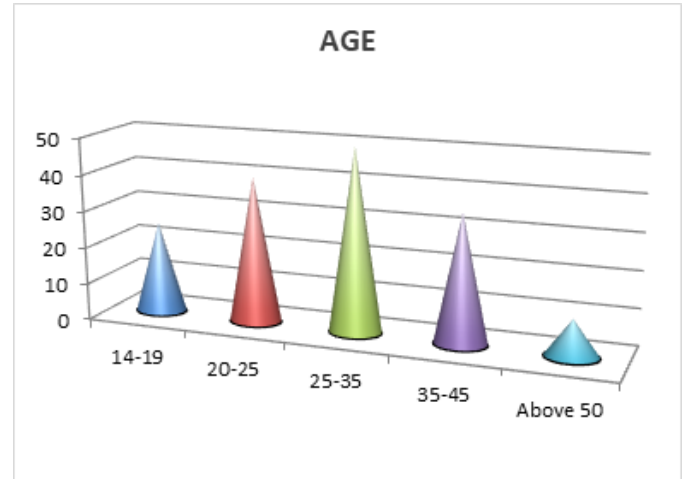
| MARITAL STATUS | FREQUENCY | PERCENT | CUMULATIVE PERCENTAGE |
|----------------|-----------|---------|-----------------------|
| Married        | 78        | 62.4    | 62.4                  |
| Unmarried      | 57        | 43.2    | 100                   |
| Total          | 125       | 100     |                       |

Source: Primary data

According the survey Material status is very. It is clearly explain in this study. 66% are found to be married and the

remaining 34%are unmarried fisher folk in ramanathapuram district.

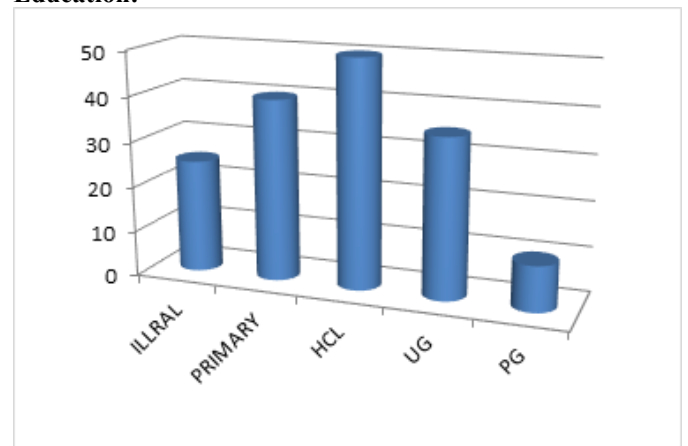
#### AGE:



Source: Primary Data

According to the analyses wise 31% of respondents are 20 to 25 age people, second highest respondents are 25 to 35 age group are 25% and 22% respondents are 35 to 45 age respondents, third 16% respondents are 14 to 19 age people and finally very low percentage respondents are above 50 age people.

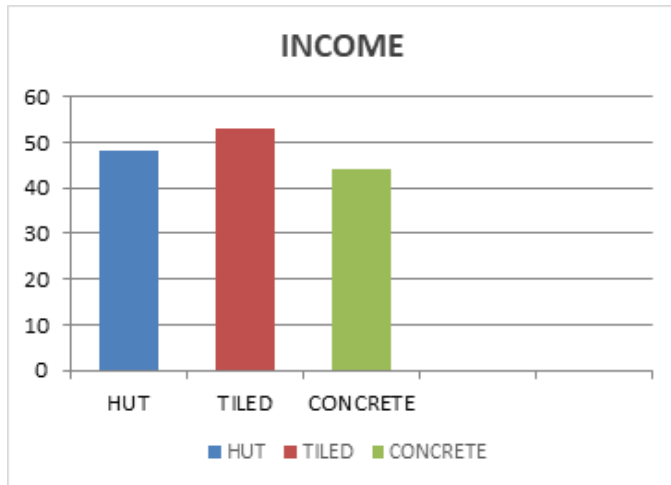
#### Education:



Source: Primary Data

The majority of the respondents are comparing then male; women are educated while 100 respondents were pursuing /had completed their master. The male respondents were a mixed group comparing higher school and UG level. There were a smaller number of respondents who were pursuing or had completed their post graduate education.

**Income:**



Source: Researcher computed

The above real's that 48 belongs to the hut, 53 peoples are belongs to tiled house and 44 community Family's belongs to concrete among 150 respondents. Respondents with concrete house are larger in this case.

**Electricity**

Electricity facilities of the Respondents

| VARIABLES       | FREQUENCY | PERCENTAGE | PERCENTAGE |
|-----------------|-----------|------------|------------|
| Electricity     | 105       | 84         | 84         |
| Non-Electricity | 20        | 16         | 100        |
| Total           | 125       | 100        |            |

Source: Researcher computed

The researcher found that, 84% of the respondents of electricity in their houses. Moreover, the rest are depending on lamps, and candles to light up their house 16%.

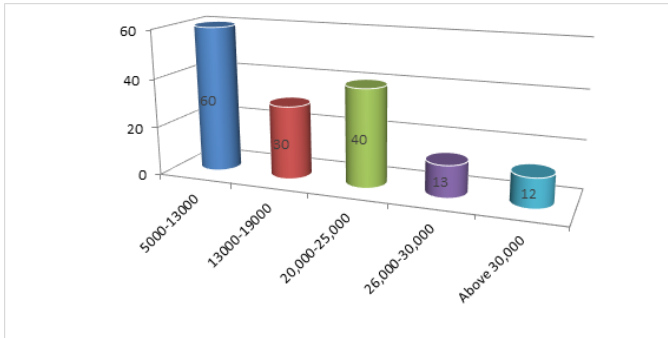
**XII. PER TRIP WAGES OF THE RESPONDENST**

| S.NO         | PER TRIP WAGES  | NO.OF RESPONDENTS | PERCENTAGE | CUMULATIVE PERCENTAGE |
|--------------|-----------------|-------------------|------------|-----------------------|
| 1            | Below 5001      | 37                | 25.6       | 25.6                  |
| 2            | 5000 – 10,001   | 33                | 24.4       | 50                    |
| 3            | 10,000 – 20,001 | 41                | 30.8       | 80.8                  |
| 4            | Above 30,001    | 24                | 19.2       | 100                   |
| <b>Total</b> |                 | <b>125</b>        | <b>100</b> |                       |

Source: Primary Data

Fishing community per trip wages is very much important for the fishermen livelihood. Wages is the important factor to analyze the problems and prospects of fishermen .It is clear from this study, 25.6% of the respondent have per trip wages less than rupees 5001, 50% of the respondents have per trip wages less than rupees 10, 001. 80.8% of the respondents have per trip wages less than 20,001and 19.2% of the respondents have per trip wages belong to above 30,001.

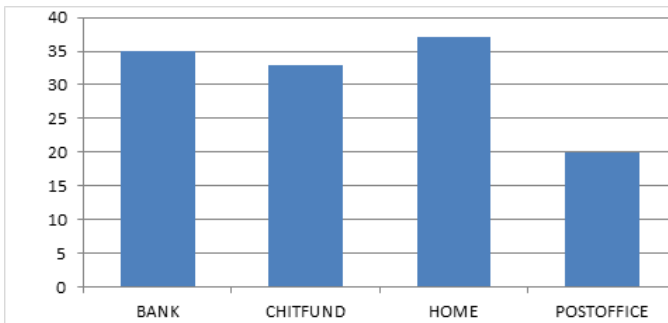
**Income:**



Source: Primary Data

As per the analyses income is very much important for the fishermen. income is the important factor to analyze the problems and prospects of fishermen .It is clear from this study, 39% of the respondent have per trip wages less than rupees 5000, 19% of the respondents have per trip wages less than rupees 13, 000. 26% of the respondents have per trip wages less than 20,000 and 8% of the respondents have per trip wages belong to above 30,000.

**Savings:**



Source: Primary Data

According to the survey savings important factor to analyze the problems and prospects of fishermen .It is clear from this study, 35% of the respondent have save their money in bank, 37% of the respondents have save their money in home /self savings. 33% of the respondents have maintained their income in chit fund and 20% of the respondents have save their money in post office.

Difference between Age and Monthly Income Chi-Square Test: Regarding the factor analyses ,the fishermen problem based upon their age, monthly income and savings based analyzed total variance ,the researcher using the Chi-Square method

calculate the ratio method .Age is a independent variable ,it is used to measure the total variance of the groups The Researcher using the following formula.

$$\chi^2 = \sum(O_i - E_i)^2/E_i,$$

Table for Chi-Square Test:

Calculation of  $\chi^2$

| Obsrved valued (O) | Expected Value (E) | (O - E) | (O - E) <sup>2</sup> | $x = \frac{(O - E)^2}{E}$ |
|--------------------|--------------------|---------|----------------------|---------------------------|
| 18                 | 20.37              | 2.37    | 5.61                 | 0.27                      |
| 35                 | 27.16              | 7.84    | 61.46                | 2.26                      |
| 42                 | 29.62              | 12.38   | 153.26               | 5.17                      |
| 25                 | 7.71               | 17.29   | 298.9                | 38.7                      |
| 5                  | 1.54               | 3.46    | 11.97                | 7.77                      |
| 48                 | 45.62              | 2.38    | 5.66                 | 0.12                      |
| 53                 | 60.83              | 7.83    | 61.30                | 1.00                      |
| 44                 | 66.37              | 22.37   | 500.4                | 7.53                      |
| <b>Total</b>       |                    |         |                      | <b>62.82</b>              |

Result of the Chi-Square Test:

Calculated vale = 62.82

$$r = (c-1) (r-1)$$

Here there are 2 rows and 4 columns

$$R = (2-1) (4-1) = 3$$

For r =3,  $\chi^2_{0.05} = 7.81$ (from table)

Calculated Value > Table value

Therefore the hypotheses are rejected The calculation value is greater than table value, the hypothesis is rejected. Hence there is significant of Age and Income in depended.

**Findings:**

The study found that fishermen in Rameshwaram are diversifying their livelihood options beyond traditional fishing, with many engaging in aquaculture, fish processing and marketing, tourism-related activities, and alternative livelihoods such as agriculture and small-scale industries. Income levels: The study found that the income levels of fishermen in Rameshwaram vary widely, with those engaged in traditional fishing earning lower incomes compared to those engaged in alternative livelihoods. The study found that job security is a major concern for fishermen in Rameshwaram, with many facing uncertainty and insecurity in their livelihoods. The study found that access to social services, including healthcare and education, is limited for fishermen in Rameshwaram, with many facing barriers in accessing these services. The study identified several challenges and constraints faced by fishermen in Rameshwaram, including declining fish stocks, rising operational costs, and regulatory restrictions.

### XIII. CONCLUSIONS

The study concludes that there is a need for sustainable livelihoods for fishermen in Rameshwaram, with a focus on promoting alternative livelihoods and improving the socio-economic status of the community. Diversification of livelihood options is crucial for the economic and social well-being of fishermen in Rameshwaram, and that efforts should be made to promote and support alternative livelihoods. The study concludes that addressing job security and access to social services is critical for the well-being of fishermen in Rameshwaram, and that efforts should be made to improve access to these services. The study examines that policy support is necessary to promote sustainable livelihoods for fishermen in Rameshwaram, including the development of policies and programs that support alternative livelihoods and improve the socio-economic status of the community.

### REFERENCE

1. Financial inclusion of Fisher folk in Ramanathapuram District, B Vimala, K Alamelu, international journal of Recent Technology and Engineering 8,750-755,2019
2. Socio economic assessment of seaweed farmers in case study in Ramanathapuram District.R Narayanakumar,M Krishnana,Indian journal of fisheries 60,(4),51-57,2013
3. Economic performance of marine fishing methods in ramanathapuram district of Tamilnadu, B Johnson,R Narayanakumar,PS Swathi lekshmi,Indian journal of extension education 58(1),54-58,2022
4. Traditional products and practices of indigenous people inhabiting Ramanathapuram district of Tamilnadu, T Rathakrishnana,N Ananadaraja,M Ramasubramanian,S Kalai selvan,CSIR,2008
5. Fisheries Hand book 2020
6. Marine product Export Development Authority
7. Department of fisheries, Gol
8. Problem and prospects of Fishermen in india with special reference to Nagpattinam,L Marimuthu, A Valliammal,Asia Pacific journal of Research Vol:I Issue XXXVI,2016