**A Study on Economic Contributions of Women Fisher Folk in Rameswaram Taluk of Ramanathapuram District, Tamil Nadu, India**

 **Abstract**

 Women fisher folk in India involved in pre- harvest fisheries and post-harvest fisheries. The pre-harvest fisheries mean before harvesting the fish women work in net making, net Mending, cooking and taking care of the children in the family. The post-harvest fisheries mean harvested fish islanded, women work in shore-based activities such as marketing, salting, drying, smoking and other seafood industry In fisheries sector Women involved in informal sector such as domestic workers, home based workers, street vendors and market traders. In this sector, women work didn’t recognize, protected under labour laws, irregular incomes 2 .Due to economically disadvantages in outside the society and not access any benefits from the fishing industry so women fisher folk organized self-help groups 3 . women fisher folk itself-help groups contributes small savings and apply for creditor purchase fish net, boat and also utilise for householdrequirement such as house repairing, education and to conduct social ceremonies. Self-Help Groups’s is key for economic empowerment of women fisher folk in the RameswaramTaluk.

***Key Words****: Women Fisher Folk, Seaweed Collectors, Dry Fish and Fish Net*

**Introduction**

Women fisher folk in India play a vital role in pre-harvest and post-harvest fisheries. Pre-harvest activities refer to tasks undertaken before catching fish, including net making, net mending, and performing domestic responsibilities such as cooking and childcare. Post-harvest activities, on the other hand, involve women in shore-based work such as marketing, salting, drying, smoking, and other forms of seafood processing.

In the fisheries sector, many women are engaged in informal employment, including roles as domestic workers, home-based producers, street vendors, and market traders. Their contributions often go unrecognized, are not protected under labor laws, and yield irregular or insufficient incomes. Due to persistent economic disadvantages and limited access to benefits from the fishing industry, many women fisher folk have come together to form self-help groups (SHGs).

Through these SHGs, women collectively contribute small savings and access credit facilities, which they use to purchase essential fishing equipment such as nets and boats. These funds are also utilized for household needs including home repairs, children's education, and cultural or social functions. In Rameswaram Taluk, SHGs have emerged as a critical mechanism for enhancing the economic empowerment and social well-being of women fisherfolk.

**Review of Literature**

**Gitanjali Chaturvedi (2004)** conducted a study titled *“Women in Fisheries on the East Coast of India.”* This study reviewed the Bay of Bengal Programme’s (BOBP) “Women in Fisheries” initiative, which assessed the needs of women in fishing communities concerning community development, food and nutrition security, and livelihood sustainability. More than thirty villages were visited, and women actively participated in Participatory Rural Appraisals. The BOBP, an Inter-Governmental Organisation (IGO), identified alternative livelihood options, concluding that self-help organisations serve as catalysts for successful microenterprises, thereby transforming the lives of fisherfolk.

**Patterson, J. and Samuel V.D. (2007)** conducted an assessment titled *“Participatory Approach of Fisherwomen on Crab Fattening for Alternate Income Generation in Tuticorin, Southeast Coast of India.”* In Vellapatti, a fishing village on the Tuticorin coast of the Gulf of Mannar, women engaged in crab fattening using their available resources and time to generate income. The study highlighted the economic potential of fattening blue swimming crabs (*Portunus pelagicus*) and mud crabs (*Scylla serrata*), selected for their high market value.

**Jeyabaskaran et al. (2018)** in their study *“Conservation of Seagrass Beds with Special Reference to Associated Species and Fishery Resources”* reported that seagrass beds are abundant along the Southeast Coast of India, particularly in the Gulf of Mannar and Palk Bay, both biodiversity hotspots. These ecosystems support a variety of vertebrate and invertebrate species, including fishery resources. The paper explored fishing practices, artisanal methods, and environmental impact, and emphasised the need for conservation strategies.

**Holly M. Hapke (2018)**, in her study *“Street Vendors, Fish Markets and Food Security,”* noted that gender inequality remains a significant challenge in the fishing sector, despite women’s efforts to adapt to changing market dynamics. Findings from the Fish4Food project in southern India emphasise that small-scale traders—predominantly women—play a vital role in ensuring food security for urban poor communities by selling small pelagic fish. These women typically operate from roadside markets or as mobile vendors, playing an essential role in the urban food supply chain.

**Premapriya M. and Jeyaseelan M. (2019)**, in their study titled *“Socio-Economic Status of Fisherfolk Women in Pillaichavady Village, Puducherry,”* discussed the historical and ongoing challenges faced by women in the fishing industry. Street-based female vendors struggle with illiteracy, limited employment opportunities, occupational health hazards, and domestic challenges. This article presents five case studies from Pillaichavady village, illustrating how women, despite health issues, continue their work to support their families financially.

**Nidhi Jamwal (2020)** in the article *“Left in the Lurch,”* explored the impact of the COVID-19 lockdown on the fishing community of Guhagar village in Maharashtra’s Ratnagiri district. The lockdown halted economic activity, severely affecting fishers and vendors across the value chain. Women, who typically purchased fish at landing sites for resale, lost their livelihoods overnight. The study compares traditional fishers to daily-wage labourers in terms of economic vulnerability.

**Nikita Gopal (2022)** in the article *“Do Women Fish?”* presented case studies from across India that highlights the significant but often overlooked contributions of women in the fisheries sector. Drawing from the ‘Illuminating Hidden Harvests’ research, the study revealed that women account for nearly half the workforce in fisheries and aquaculture, especially in post-harvest operations such as processing and trading. Despite their critical contributions, they are typically undercompensated, especially in seafood processing and fish vending.

**Research Gap**

Although numerous studies have examined the role of women in fisheries across India, highlighting their involvement in fish vending, processing, alternative livelihoods, and the challenges they face, there is limited research focusing specifically on the socio-economic status of women fisherfolk in **Rameswaram Taluk** of Ramanathapuram District, Tamil Nadu. This region, with its proximity to the Gulf of Mannar and Palk Bay, is a significant hub for marine fisheries. However, the specific experiences of women engaged in fishing and related livelihood activities in this locale remain understudied. Furthermore, while the role of Self-Help Groups (SHGs) and Joint Liability Groups (JLGs) in empowering women has been widely acknowledged, their specific impact on women in the Rameswaram region has not been thoroughly documented. This study addresses this gap by investigating the economic roles, livelihood sources, and socio-cultural conditions of women fisherfolk in this coastal zone.

**Objectives of the Study**

1. **To analyse the socio-economic profile of women fisherfolk** in Rameswaram Taluk, including factors such as income levels, education, occupation, and access to basic amenities.
2. **To examine the various sources of livelihood** available to these women, both within the fisheries sector and through alternative income-generating activities.
3. **To evaluate the impact of Self-Help Groups (SHGs) and Joint Liability Groups (JLGs)** on women’s financial independence, social status, and access to credit facilities and institutional support.
4. **To understand the challenges and constraints** faced by women in the fishing community to market access, gender-based discrimination, work-life balance, and environmental factors.
5. **To suggest policy recommendations** for enhancing the socio-economic well-being and empowerment of women engaged in fisheries and allied sectors in the study area.

**Methodology**

The present study employs a **descriptive research design** to analyze the socio-economic conditions and income-generating activities of women fisherfolk in Rameswaram Taluk. The research primarily focuses on two coastal villages: **Chinnapalam** and **Therkuvadi**.

**Sampling Design and Data Collection**

Primary data were collected using a **structured interview schedule**, tailored to collect demographic, economic and experiential data. The **cluster sampling technique** was adopted for selecting the respondents. Based on data from the **Marine Fisheries Census 2016** (conducted by the ICAR – Central Marine Fisheries Research Institute and the Department of Fisheries, Government of India), two distinct clusters were identified:

* **Chinnapalam village**: Out of 298 women fisherfolk, a sample of **98 respondents** was selected, constituting **approximately 34%** of the population.
* **Therkuvadi village**: Out of 672 women fisherfolk, **53 respondents** were selected, accounting for **approximately 7.8%** of the population.

The data collection was conducted for **one month** in **June 2023**.

**Statistical Tools Used**

To analyze the data and to interpret trends and draw inferences, the following statistical techniques were employed:

1. **Simple Linear Regression using a Dummy Variable**
A linear regression model was used to assess the influence of the type of work (seaweed collection vs. other types) on women's annual income. The model is specified as:

Y=α0+α1D1Y = \alpha\_0 + \alpha\_1 D\_1Y=α0​+α1​D1​

Where:

* + YYY = Annual income of the respondent
	+ D1D\_1D1​ = Dummy variable (1 for Non-Seaweed Collectors; 0 otherwise)
	+ α0\alpha\_0α0​ = Intercept
	+ α1\alpha\_1α1​ = Coefficient indicating income difference between the two groups
1. **One-Way ANOVA**
Analysis of Variance (ANOVA) was used to determine whether there were statistically significant differences in **average monthly income** among women engaged in various types of work (e.g., sea shell craft, casual labor, seaweed collection, fish net making, etc.).
	* **Null Hypothesis (H₀)**: There is no significant difference in the average income among different occupational groups.
	* **Alternative Hypothesis (H₁)**: There is a significant difference in the average income among different occupational groups.
2. **Paired Sample t-Test**
This test was used to compare the **income levels before and after** joining SHGs (in Chinnapalam) and JLGs (in Therkuvadi).
	* **Null Hypothesis (H₀)**: There is no significant difference in income before and after joining the group.
	* **Alternative Hypothesis (H₁)**: There is a significant difference in income before and after joining the group.
3. **Percentage Analysis**
Percentage analysis was applied to interpret demographic and socio-economic characteristics, such as age distribution, marital status, education level, type of housing, household size, and the proportion of income spent on various necessities. This technique helps in understanding the distribution and trends across different variables.

**Results and Discussion**

**Findings**

1. The majority (50 percentages) of respondents fall within the 30–45 age group.
2. 93 percentages of the women fisher folk are married.
3. 60 percentages have received primary education.
4. 40 percentages of the households live in thatched houses.
5. 82 percentages of households consist of 4–6 members.
6. All respondents (100 percentages) belong to the Backward Community. Those in Therkuvadi are Christians, while those in Chinnapalam are Hindus.
7. In Chinnapalam, all (100 percentages) women are engaged in making sea shell garlands—a form of shell craft that provides an additional source of income.
8. 78 percentages of women are engaged in seaweed collection.
9. 21 percentages of women in Chinnapalam participate in MGNREGS, particularly in activities like road construction and land development.
10. 21 percentages work at Syed Ali Papu Vadi Fish Company, Pamban, earning between ₹200–₹350 per day, depending on fish availability.
11. Only 1 percentage is engaged in gleaning fish from nets, earning ₹200–₹300 depending on fish availability.

**Therkuvadi Village-Specific Findings:**

1. All respondents (100 percentages) make and sell fishing nets, earning between ₹1000 and ₹3500 depending on the type.
2. 100 percentages of women also engage in fish net cleaning, earning ₹250 each.
3. 15 percentages are involved in dry fish processing (100 kg capacity).
4. 37 percentages have an annual income between ₹1,00,000 and ₹1,10,000.
5. Chinnapalam has 7 Self-Help Groups (SHGs) with 98 members who have collectively received ₹39,23,000 in loans from ICICI Bank and Pandiya Grama Bank. Therkuvadi has 10 Joint Liability Groups (JLGs) with 53 members, who have received ₹21,20,000 in loans from Tamil Nadu Grama Bank. SHG and JLG members contribute ₹100 in monthly savings, as per group consensus.

**Loan Utilisation:**

1. In Chinnapalam:
* 50 percentages of the loan funds used for boat repair
* 15 percentages for fish nets
* 5 percentages for boat mechanisation
* 5 percentages for education
* 1 percentages for marriage
* 6 percentages for health
* 3 percentages for social ceremonies
* 6 percentages or miscellaneous expenses
1. In Therkuvadi:
* 70 percentages used for fish net making
* 10 percentages for dry fish processing
* 5 percentages for health
* 7 percentages for education
* 4 percentages for marriage
* 2 percentages for social ceremonies
* 2 percentages for other uses
1. Seaweed collectors have an average annual income of ₹1,03,108.97, while non-collectors earn ₹1,38,060. The income difference is statistically significant at the 5% level, indicating that women in other occupations enjoy relatively higher living standards
2. The F-value of 102.758 is statistically significant, indicating that average monthly income varies significantly across different income-generating activities.
3. A paired t-test (t = 60.228, df = 97, p < 0.01) shows a significant increase in income after joining SHGs in Chinnapalam, supporting the alternative hypothesis (H1).
4. A paired t-test (t = 50.973, df = 52, p < 0.01) also confirms significant income improvement for JLG members in Therkuvadi.
5. Average monthly incomes by activity (post-SHG involvement in Chinnapalam):
* Seashell Craft: ₹9500
* Seaweed Collection: ₹2000
* Casual Labour at Fish Company: ₹26,536.42
* Gleaning: ₹6000
* Net Cleaning: ₹2400
* MGNREGS shows relatively lower income

**Suggestions**

1. **Sustainable Seaweed Collection:**
The mechanical harvesting of seaweed is damaging nearby live coral colonies, leading to the depletion of seaweed resources. Since seaweeds are essential for marine biodiversity—serving as food and shelter for fish—unregulated harvesting can result in ecological imbalance and the loss of fishery resources. The government should intervene by creating alternative employment opportunities for women fisher folk, such as fish marketing and cold storage facilities, through women-led entrepreneurship initiatives.
2. **Empowering Shell Craft Artisans:**
The marketing of shell craft should be managed by women cooperative societies run by local fisher folk. This would minimize dependence on intermediaries, who currently purchase shell craft items at low prices and sell them at high margins. Strengthening cooperative networks can ensure fair pricing and improve women's income.
3. **Ensuring Job Security in Private Fish Processing Units:**
Women working in private fish processing units face job insecurity and lack social protection. The government should ensure the implementation of social security schemes such as pension funds and ESI (Employee State Insurance) by collaborating with company management. Social awareness programs should be conducted to educate women about their rights and available benefits.
4. **Promoting Ice Bar Manufacturing Units:**
SHG members can establish ice bar manufacturing units by availing loans under the Mudra scheme from financial institutions. These units will support the preservation and transport of fish, thereby enhancing the fishery supply chain. Proper training and business planning support should be provided.
5. **Establishment of Seafood Processing Units:**
Given India's significant foreign exchange earnings from fish exports, the government should establish seafood processing units in the Gulf of Mannar region. This would generate employment opportunities for women fisher folk and enhance their socio-economic status.
6. **Training and Technical Support:**
The National Fisheries Development Board (NFDB) should provide training and technical guidance to SHG and JLG members to help them establish and run fish-based enterprises successfully. This will enhance entrepreneurial activities among coastal women.
7. **Cooperative-based Fish Marketing:**
Fish marketing should be managed through women's cooperatives. This approach would eliminate third-party intermediaries, ensuring better profits and transparency for women fisherfolk.

**Conclusion**

Women fisher folk self-help groups and joint liability groups of Rameswaram taluk contribute income to family, spend money for children education, health care, purchase of fish net and boat. This shifts the women fisher folk from weaker to powerful growth in economic condition, gender equality, enhance productivity Sustainable development. Women fisher folk participate in self-help groups and joint liability groups had a steady economic growth it led to meet global demand for food, equip them for global competition and able to apply for changing new technology in fishing. Women fisher folk involved in fisheries development means it leads to rural economy and Indian economy to a developed one.

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