

**GENDER DISPARITY IN WORK PARTICIPATION:
A STUDY OF FISHERMEN COMMUNITY
IN KERALA**

*Thesis submitted to the
University of Calicut for the award of the degree of*

DOCTOR OF PHILOSOPHY IN ECONOMICS

By

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July 2025**

DECLARATION

I, SHAMILA V U, hereby declare that this PhD thesis entitled, “**GENDER DISPARITY IN WORK PARTICIPATION: A STUDY OF FISHERMEN COMMUNITY IN KERALA**” is a bona fide record of research work done by me for the fulfilment of the award of the degree of Doctor of Philosophy, under the guidance and supervision of Dr G. RAJEEV, Associate Professor and Former H.O.D, Research & P.G. Department of Economics, Mar Dionysius College, Pazhanji. I also declare that this thesis has not been submitted earlier for the award of any degree, diploma, fellowship or any other similar title.

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This is to certify that the thesis entitled "**GENDER DISPARITY IN WORK PARTICIPATION: A STUDY OF FISHERMEN COMMUNITY IN KERALA**", submitted by **Mrs SHAMILA V U**, to the University of Calicut, for the partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy (PhD) in Economics, is a bona fide research work done by **Mrs SHAMILA V U** under my supervision and guidance in the Research & Post Graduate Department of Economics, Mar Dionysius College (Affiliated to University of Calicut), Pazhanji, Thrissur, Kerala. The content embodied in this thesis, in full or in parts, have not been submitted to any other University or Institute for the award of any degree. Plagiarism is checked and found within the permitted limits.

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I hereby declare that the work presented in the thesis entitled “**GENDER DISPARITY IN WORK PARTICIPATION: A STUDY OF FISHERMEN COMMUNITY IN KERALA**” is based on the original work done by me under the guidance of Dr G. Rajeev and has not been included in any other thesis submitted previously for the award of any degree. The contents of the thesis are undergone plagiarism check using the ITHENTICATE software at C.H.M.K. Library, University of Calicut, and the similarity index was found within the permissible limit. I also declare that the thesis is free from AI generated contents.

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ABSTRACT

The study titled ‘Gender Disparity in Work Participation: A Study of Fishermen Community in Kerala’ explores gender disparity in work participation among the fishermen community in the coastal districts of Malappuram and Thiruvananthapuram in Kerala. The research focuses on examining the socio-economic characteristics of fisherfolk households, identifying the determinants and constraints of female work participation, assessing the extent of gender disparity and evaluating the awareness and utilisation of government support programmes by fisherwomen.

Findings reveal that most households face economic vulnerability with limited access to modern amenities and a high incidence of debt. Female work participation is relatively low, with notable regional and religious differences. Women are concentrated in informal and low-paying jobs and face barriers such as domestic responsibilities, health issues, limited mobility and lack of awareness about welfare schemes. Educational attainment, family structure, religious affiliation and regional infrastructure considerably influence their work status. Gender-based discrimination in wages, job opportunities, and household decision-making remains evident.

The study finds that despite moderate awareness, the utilisation of government programmes among fisherwomen remains low due to challenges in accessibility and delivery. Factors such as education, location and community involvement significantly influence awareness and engagement. While participation and satisfaction with schemes did not directly impact employment. Further, awareness emerged as a crucial determinant of work participation. Therefore, effective economic empowerment requires not just the provision of schemes but also targeted efforts to improve grassroots-level awareness and access. Based on the insights derived from the study, policy interventions are suggested with a focus on improving education, enhancing skill development, expanding access to employment, and strengthening information dissemination to reduce gender disparity and improve the socio-economic status of fisherwomen in Kerala.

Keywords: fisherwomen, work participation, gender, education, government, skill, employment, labour, place, development, vulnerability, community,

സംഗ്രഹം

‘ജോലി പങ്കാളിത്തത്തിലെ ലിംഗ അസമത്വം: കേരളത്തിലെ മത്സ്യത്തൊഴിലാളി സമൂഹത്തെക്കുറിച്ചുള്ള ഒരു പഠനം’ എന്ന തലക്കെട്ടിലുള്ള പഠനം, കേരളത്തിലെ മലപ്പുറം, തിരുവനന്തപുരം എന്നീ തീരദേശ ജില്ലകളെ താരതമ്യപ്പെടുത്തി മത്സ്യത്തൊഴിലാളികൾക്കിടയിലെ തൊഴിൽ പങ്കാളിത്തത്തിൽ സംഭവിച്ചിട്ടുള്ള ലിംഗ അസമത്വങ്ങൾ പരിശോധനയ്ക്ക് വിധേയമാക്കുന്നു.

മത്സ്യത്തൊഴിലാളി കുടുംബങ്ങളുടെ സാമൂഹികവും സാമ്പത്തികവുമായ വ്യതിരിക്തതകൾ സവിശേഷമായി പരിശോധിക്കുക, സ്ത്രീകൾക്ക് തൊഴിൽ പങ്കാളിത്തത്തിലുള്ള സാധ്യതകളും പരിമിതികളും തിരിച്ചറിയുക, ലിംഗ അസമത്വത്തിന്റെ വ്യാപ്തി വിശകലനം ചെയ്യുക, മത്സ്യത്തൊഴിലാളികളിലെ സ്ത്രീകൾക്കിടയിൽ സർക്കാർ പിന്തുണയോടെയുള്ള വിവിധ പരിപാടികളെക്കുറിച്ചുള്ള അവബോധമുണ്ടാക്കുകയും അവയെ ക്രിയാത്മകമായി ഉപയോഗപ്പെടുത്താനുള്ള സാധ്യതകൾ പരിശോധിക്കുക തുടങ്ങിയ കാര്യങ്ങളിൽ ഗവേഷണം ശ്രദ്ധ കേന്ദ്രീകരിക്കുന്നു.

പരിമിതമായ ജീവിത സാഹചര്യങ്ങളിൽ നിന്നുകൊണ്ട്, ആധുനിക സൗകര്യങ്ങൾ ഒരുക്കാനുള്ള വ്യഗ്രതയാൽ രൂപപ്പെടുന്ന ഉയർന്ന കടബാധ്യത മൂലം മിക്ക കുടുംബങ്ങളും സാമ്പത്തിക പ്രതിസന്ധി നേരിടുന്നുണ്ടെന്ന് കണ്ടെത്തലുകൾ വെളിപ്പെടുത്തുന്നു. പ്രാദേശികവും മതപരവുമായ വ്യത്യാസങ്ങൾ നിലനിൽക്കെത്തന്നെ സ്ത്രീകളുടെ തൊഴിൽ പങ്കാളിത്തം താരതമ്യേന കുറവാണ്. അനൗപചാരികവും കുറഞ്ഞ വേതനം ലഭിക്കുന്നതുമായ ജോലികളിലാണ് സ്ത്രീകൾ ശ്രദ്ധ കേന്ദ്രീകരിച്ചിരിക്കുന്നത്. ഗാർഹിക ഉത്തരവാദിത്തങ്ങൾ, ആരോഗ്യ പ്രശ്നങ്ങൾ, പരിമിതമായ ചലനശേഷി, ക്ഷേമ പദ്ധതികളെക്കുറിച്ചുള്ള അവബോധമില്ലായ്മ തുടങ്ങിയ കാര്യങ്ങൾ അവരുടെ മുന്നോട്ടുള്ള പന്മാവിന് തടസ്സങ്ങൾ സൃഷ്ടിക്കുന്നു.. വിദ്യാഭ്യാസത്തിലുള്ള നേട്ടങ്ങൾ, കുടുംബ ഘടന, മതപരമായ ബന്ധം, പ്രാദേശികമായ അടിസ്ഥാന സൗകര്യങ്ങൾ എന്നിവ അവരുടെ തൊഴിൽ നിലയെ ഗണ്യമായി സ്വാധീനിക്കുന്നു. വേതനം, തൊഴിൽ അവസരങ്ങൾ, തീരുമാനമെടുക്കൽ എന്നിവയിൽ ലിംഗപരമായ വിവേചനം ഇപ്പോഴും പ്രകടമാണ്.

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ഫലപ്രദമായ സാമ്പത്തിക ശാക്തീകരണത്തിന് പദ്ധതികൾ നൽകുക മാത്രമല്ല, അടിസ്ഥാനതലത്തിലുള്ള അവബോധവും പ്രവേശനവും മെച്ചപ്പെടുത്തുന്നതിനുള്ള ലക്ഷ്യബോധമുള്ള ശ്രമങ്ങളും ആവശ്യമാണ്. പഠനത്തിൽ നിന്ന് ലഭിച്ച ഉൾക്കാഴ്ചകളെ അടിസ്ഥാനമാക്കി, ലിംഗപരമായ അസമത്വം കുറയ്ക്കുന്നതിനും കേരളത്തിലെ മത്സ്യത്തൊഴിലാളി സ്ത്രീകളുടെ സാമൂഹിക-സാമ്പത്തിക നില മെച്ചപ്പെടുത്തുന്നതിനും വിദ്യാഭ്യാസം മെച്ചപ്പെടുത്തൽ, നൈപുണ്യ വികസനം വർദ്ധിപ്പിക്കൽ, തൊഴിൽ ലഭ്യത വിപുലീകരിക്കൽ, വിവര വ്യാപനം ശക്തിപ്പെടുത്തൽ എന്നിവയിൽ ശ്രദ്ധ കേന്ദ്രീകരിച്ചുള്ള നയ ഇടപെടലുകൾ നിർദ്ദേശിക്കപ്പെടുന്നു.

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ABBREVIATIONS

(LIST OF ACRONYMS)

AISHE	:	All India Survey on Higher Education
ANOVA	:	Analysis of Variance
APL	:	Above the Poverty Line
BPL	:	Below the Poverty Line
CEDA	:	Centre for Economic Data and Analysis
CIWA	:	Central Institute for Women in Agriculture
CMFRI	:	Central Marine Fisheries Research Institute
CWS	:	Current Weekly Status
DEPT	:	Department
EEZ	:	Exclusive Economic Zone
FAO	:	Food and Agriculture Organisation
FDRF	:	Fishermen Distress Relief Fund
FWFB	:	Fishermen Welfare Fund Board
GDP	:	Gross Domestic Product
GDP	:	Gross Domestic Product
GII	:	Gender Inequality Index
GOI	:	Government of India
GOV	:	Government of India
GVA	:	Gross Value Added
HDI	:	Human Development Index
ICSF	:	International Collective in Support of Fishworkers
ICSF	:	International Collective in Support of Fishworkers
ICZM	:	Integrated Coastal Zone Management Program
ILO	:	International Labour Organisation
KSCADC	:	Kerala State Coastal Area Development Corporation Programmes
LFPR	:	Labour Force Participation Rate
LFPS	:	Labour Force Participation Rate
MCITRA	:	Malabar Coastal Institute for Training Research and Action

MKSP	:	Mahila Kisan Sashaktikaran Pariyojana
MMT	:	Million Metric Tonnes
MOSPI	:	Ministry of Statistics and Programme Implementation
MSDs	:	Musculoskeletal Disorders
MSY	:	Matsya Sampada Yojana
NBCFDC	:	National Backward Classes Finance and Development Corporation
NCO	:	National Classification of Occupation
NFHS	:	National Family Health Survey
NFDBS	:	National Fisheries Development Board Schemes
NGO	:	Non-Governmental Organization
NRLM	:	National Rural Livelihoods Mission
NSWF	:	National Scheme of Welfare of Fishermen
NSSO	:	National Sample Survey Organisation
OBC	:	Other Backward Community
PS	:	Principal Status, Subsidiary Status
PMMSY	:	Pradhan Mantri Matsya Sampada Yojana
PMMY	:	Pradhan Mantri Mudra Yojana
RAPFISH	:	Rapid Appraisal for Fisheries
RKVY	:	Rashtriya Krishi Vikas Yojana
REGP	:	Rural Employment Generation Program
SAF	:	Society for Assistance to Fisherwomen
SC	:	Scheduled Caste
SEWA	:	Self-Employed Women's Association
SHG	:	Self-Help Groups
SSLC	:	Secondary School Leaving Certificate
STEP	:	Support to Training and Employment Program for Women
SDVTP	:	Skill Development and Vocational Training Programmes
TVM	:	Thiruvananthapuram
UN	:	United Nations
UNICEF	:	United Nations International Children's Emergency Fund
UR	:	Unemployment Rates
WPR	:	Worker Population Ratio
WTO	:	World Trade Organisation

CHAPTER I

INTRODUCTION

- 1.1 Introduction
 - 1.2 Background of the study
 - 1.3 Statement of the problem
 - 1.4 Research questions
 - 1.5 Objective of the study
 - 1.6 Hypotheses
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CHAPTER I

INTRODUCTION

1.1.Introduction

Gender disparity refers to unequal access to resources, opportunities, and rights of both men and women. It affects various areas of life like education, employment, health, and political representation (World Economic Forum, 2020). This disparity is clear in many ways, such as unequal wages and gender gaps in work participation. As women are highly concentrated in low-paid informal work, they face many challenges, including social insecurity, poverty, unemployment and lack of financial independence, which increases their dependency. Gender disparity often limits women's access to education, healthcare, and employment. Research by Klasen and Pieters (2015) highlights that these disparities in labour force participation are significant in South Asia, where various social norms restrict women from participating in the labour force. Gender equality is the backbone of economic growth and sustainability (International Labour Organisation, 2020). The economic impact of gender disparity in work participation reinforces inequality and limits women's empowerment. Both nationally and individually, it reduces potential output, savings, and investment. Work is key to financial independence, self-worth, and a sense of agency, which are essential for the social empowerment of women (Sen, 1999). Policies aimed at overcoming the challenges faced by women will fail if women are excluded from decision-making processes. Addressing gender disparity is crucial for achieving the United Nations' Sustainable Development Goals (SDGs) (UN, 2015). A combination of reforms, such as policies promoting gender equality like equal pay for equal work and changes in societal norms, is essential to resolve this global issue.

Kerala is privileged to have a coastline of 590 km (Kerala Marine Fisheries Statistics, 2023). More than 10 lakh fishermen sustain their livelihoods through the aquatic biodiversity and fish wealth of the state (fisheries.kerala.gov.in). Kerala covers an area of 38,863 sq. km and is geographically divided into three climatically distinct regions: the eastern highlands, the central midlands, and the western coastal plains.

Kerala ranks fifth in terms of coastal length and is one of India's leading maritime states. Data shows that about 222 fishing villages in Kerala are mostly dependent on the marine sector and activities such as fishing, fish processing, and marketing. About 2 lakh people rely on these professions for their livelihood. Approximately 2.98% of the state's population are active fishermen, with 77% depending on the marine sector and 23% on inland waters. The fishery sector earned a significant amount of foreign exchange, Rs. 5919.02 crores in 2017–18. Currently, around 6 lakh tonnes of fish are produced annually (fisheries.kerala.gov.in). Gender disparity is often more visible in fishing communities, particularly regarding labour participation. Traditional roles and societal expectations heavily influence workforce involvement based on gender. In many fishing communities, including those in Kerala, men are primarily responsible for catching fish, while women typically engage in ancillary roles such as fish processing, marketing, and household management. These roles are often undervalued and contribute to a gendered division of labour that limits women's access to resources, financial independence, and decision-making power within the community (Kurien, 2018).

The gender-based division within fisherfolk communities has changed men as the primary earners and women as support providers, though a combination of their efforts is essential for the sustainable development of households and the local economy (Salagrama, 2006). Limited access to education and skills, climate change, and the depletion of marine resources all adversely affect female fisherfolk (FAO, 2015). Since fishing is a seasonal occupation, it tends to widen the gender gap by placing an additional burden on women. To address this disparity in work participation, the government provides training, microfinance, and community cooperatives, which improve women's financial stability and economic empowerment (Kumaran, 2014). This study highlights a detailed analysis of the challenges faced by fisherwomen, specifically in the labour market, which result from a combination of social, cultural, and traditional gender roles. This examination of gender disparity contributes to a broader understanding of how regional and community-specific contexts influence gender equality in labour participation.

1.2. Background of the Study

Gender disparity in work participation is a global issue. In India, traditional gender roles continue to shape the involvement of women in the labour market. Persistent gender disparity exists across various sectors in Kerala, especially in the fishing industry. The fisherfolk community has long been characterised by a strong division of labour along gender lines. In the fishing industry, economically viable tasks are predominantly carried out by men, while women are engaged in informal work such as processing, marketing, and related activities (Kurien, 2018). This gender-based division of labour limits women's economic contributions and reinforces social and cultural norms that marginalise their roles in the economic life of the community.

1.3 Statement of the Problem

In India, though there has been development in some sectors, there are still areas where the goal of gender equality, particularly in labour force participation, remains a distant dream. According to the World Bank (2023), the female labour force participation rate in India is only 23.5%, which is considerably lower than the male rate of 80.6%. This highlights the persistent challenge of overcoming traditional gender roles in employment. Gender disparity is still prevalent in Kerala, especially in the fishing sector, where men dominate fishing activities while women are mainly involved in subsidiary areas such as marketing and processing. The extent of attention given to this issue is questionable. In such a situation, it is imperative to mainstream gender equality in the fisheries sector. Increasing female labour force participation in this sector will not only empower women but also help to address key issues such as poverty and unemployment to some extent. Although many studies have addressed gender disparity and labour force participation, most have failed to explore women's decision-making regarding labour force participation at the community level. Given that the fisherfolk community is a vulnerable group, it is essential to analyse gender disparity in work participation within this community. The present study attempts to move in this direction, guided by the following research questions and objectives.

1.4. Research Questions

1. What are the socio-economic characteristics and living conditions of fisherfolk households?
2. What are the key determinants influencing female work participation among fisherfolk households?
3. What are the main constraints faced by women in participating in work within the fishing communities?
4. How does female work participation vary within the fishermen community in Kerala and what is the extent of gender disparity in work participation?
5. What is the level of awareness, accessibility and utilisation of government support programs among female fisherfolk?

1.5. Objectives of the Study

The specific objectives of this study are:

1. To examine the socio-economic characteristics and living conditions of fisherfolk households within the study area.
2. To analyse the determinants of female work participation among fisherfolk households in the study area.
3. To identify the constraints faced by female fisherfolk in work participation.
4. To analyse female work participation and the extent of gender disparity in work participation within the fishermen community in Kerala.
5. To evaluate the awareness, accessibility and utilisation of government support programmes among female fisherfolk in the study area.

1.6. Hypotheses

1. Women from Thiruvananthapuram district are significantly more likely to participate in work compared to women from Malappuram district.
2. Women with greater family control and fewer societal restrictions are more likely to participate in work.
3. Women from nuclear families are more likely to participate in work compared to those from joint families.
4. There is no significant relationship between work status and socio-economic empowerment and support among fisherfolk.
5. Employment status does not significantly affect socio-economic empowerment among male and female fisherfolk differently.

1.7. Methodology

The research design of this study on gender disparity in work participation within the fishermen community in Kerala combines both primary and secondary data collection methods. Primary data is collected through structured surveys with both closed and open-ended questions. It gathers socio-demographic information, labour participation patterns, gender roles and economic conditions. This data helps to establish a broader context for understanding the national and regional trends in labour force participation, particularly regarding gender disparities in the fishing sector. Secondary data is sourced from, the Periodic Labour Force Survey (PLFS), the Reports and Reviews of Kerala State Planning Board 2018, the Human Development Report, Census Data 2011, the NSSO Report, NCO (National Classification of Occupation), journals and other unpublished sources like data collected by the fisheries offices of a sample area, MOSPI Data, National labour Statistics, Kerala Marine Fisheries Statistics. Information from the internet has been explored for the study (for downloading different related articles and accessing official data related to the study), providing insights into national and regional labour market trends and employment patterns, with a focus on gender disparities in the fishing sector.

1.7.1. Research Design

The study aims to systematically examine the factors contributing to the gendered division of labour within the community. It integrates both qualitative and quantitative approaches to provide a comprehensive understanding of the socio-economic, cultural, and individual factors that influence the labour participation of women in the fishing industry.

1.7.2 Data Collection

Primary data are collected from two districts of Kerala, Malappuram and Thiruvananthapuram. Malappuram District is for representing the Malabar region, and Thiruvananthapuram District represents the Travancore-Cochin region of Kerala. The sample is selected to ensure representation from both male and female participants, from different age groups, caste backgrounds and income levels. This structured approach ensures consistency in data collection while allowing respondents to provide detailed insights into their experiences. The primary data collected from these samples is crucial for understanding the local context of gender disparities and labour participation within the community. The data were mainly collected from their workplaces and their residential areas at their convenience. The period of study was just after COVID-19, in December 2020. It takes into account the main secondary data of previous periods as well. Details related to their working status, income, expenditure of the previous month, debt status, other sources of income, educational status, wage, working hours, working environment, health status and their father's education status, constraints for their work participation were collected for the study. The survey was conducted in the form of an interview using an interview schedule.

1.7.3. Sample Design

The sample design for this study follows a stratified random sampling method, with the districts being selected based on a lottery method. The first step in the sampling process involves categorising the districts into three main regions: South Kerala, Central Kerala and North Kerala. A lottery method is used to select districts within these regions randomly. Although Kerala is often broadly divided into

southern, central, and northern regions for administrative and descriptive purposes, the present study adopted a two-zone classification for analytical and practical reasons. The southern and central regions were combined into a single zone as they share several similarities in terms of fisheries development, coastal infrastructure, market integration, and access to institutional and welfare support systems. These regions exhibit relatively comparable patterns of employment opportunities, transport connectivity, and exposure to fisheries-related markets and services. Combining these two regions into a single analytical zone was therefore considered appropriate for the purposes of this study, as it reduced unnecessary fragmentation of the sample while still retaining meaningful regional contrast. The two-zone classification was also adopted to ensure adequate sample size and statistical robustness within each zone. Dividing the sample into three zones would have resulted in smaller sub-samples within each region, potentially weakening the reliability of statistical tests and limiting the ability to draw meaningful inferences. By using two zones, the study was able to maintain sufficient observations within each zone, thereby improving the stability and interpretability of comparative and multivariate analyses.

From the South and Central Kerala region, Thiruvananthapuram was selected, which has a fisherfolk population of 1,72,949 in 2020-21; among the districts, Thiruvananthapuram has the highest female work participation rate (11.6 per cent) in the public sector according to the Gender Statistics of 2014-15. From the North Kerala region, Malappuram is selected, with a fisherfolk population of 92,136 in 2020-21. And Malappuram recorded the lowest female work participation rate at 7.63%, according to the Gender Statistics 2014-15. The total fisherfolk population from the two selected districts combined is 265,085 (Table 1.1). In addition, Malappuram was selected to capture variation in institutional access, welfare scheme implementation, and socio-cultural practices that influence women's work participation differently from districts with the largest fisheries population, which are often more urbanised or have more developed fisheries infrastructure. Selecting Malappuram thus allowed the study to examine female work participation in a context where structural constraints, cultural norms, and limited institutional reach may be more pronounced, thereby strengthening the analytical value of the comparative design.

Once the districts are selected, the sample size is determined using statistical calculations. The estimated sample size is 384 respondents, based on a 95% confidence level and a 5% margin of error. The formula for calculating sample size involves using the z-score (1.96), margin of error (0.05) and population proportion (50%). The standard sample size formula is used for this calculation.

Table 1.1
Estimated Sample Design

District	Fisherfolk Population 2020-21 (Marine)	Region (Strata)	Selected District	Fisherfolk Population 2020-21 (Marine)
Thiruvananthapuram	172949	South and Central Kerala	Thiruvananthapuram	172949
Kollam	95366			
Alappuzha	131731			
Ernakulam	74356			
Thrissur	57384			
Malappuram	92136	North Kerala	Malappuram	92136
Kozhikode	101026			
Kannur	38787			
Kasaragod	4450			
Total	808185			265085

Source: Kerala Fishermen Welfare Fund Board, 2022

Table 1.2
Actual Sample Size

District	Estimated Samples*	Actual Sample		
		From District	Village	From Villages
Thiruvananthapuram	182	182	Anchuthengu	90
			Perumathura	92
Malappuram	202	223	Ponnani	131
			Palapetty	92
Total	384	405		405

Source: Sample Survey, *-estimated, #- This means 384 or more measurements/surveys are needed to have a confidence level of 95% that the real value is within $\pm 5\%$ of the measured/surveyed value.

$$\text{Unlimited population: } n = \frac{z^2 \times \hat{p}(1-\hat{p})}{\varepsilon^2}$$

$$\text{Finite population: } n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1-\hat{p})}{\varepsilon^2 N}}$$

Where

z is the z score (1.96)

ε is the margin of error (5 percent=0.05)

N is the population size (265085)

\hat{p} is the population proportion (50 percent=0.5)

The actual sample size for the study slightly exceeds the estimated number. In Thiruvananthapuram, the target sample of 182 respondents is met, with 90 respondents surveyed in Anchuthengu and 92 respondents surveyed in Perumathura. In Malappuram, 202 respondents were estimated, but the actual sample increased to 223 respondents, with 131 respondents from Ponnani and 92 respondents from Palapetty. The fishing villages, Anchuthengu, Perumathura, Ponnani and Palapetty, are randomly selected. The total sample size for the study is 405 respondents, which exceeds the minimum required sample of 384 (Table 1.2). These samples are considered as households, comprising 405 families and 1,712 household members, excluding 11 babies. One individual from each household provided the information regarding household characteristics. In this study, each respondent represents one household. Among the 405 respondents, 398 are females and the remaining 7 are males. Furthermore, the 405 households comprise a total of 1,712 members of working age, including 956 females and 766 males.

The selection of an actual sample size greater than the estimated sample size ensures better representation of the population among the fisherfolk. Selecting multiple villages from two distinct districts highlights various aspects of gender inequality in work participation among female fisherfolk. This results in more accurate and reliable data, contributing to a better understanding of the problem. Thus, the sample design ensures that the findings are robust and reflective of the larger

population in the region. Consequently, the methodological design provides a more accurate representation of the sub-regions within the selected districts, thereby improving both the generalizability and depth of the study.

1.7.4. Data Analysis

The study uses various statistical techniques to analyse the data and derive meaningful interpretations from the survey responses. The data collection period was 2020-2021. The following methods are used:

Descriptive Statistics: It consists of Mean, Standard Deviation (SD), and Coefficient of Variation (CV). This tool summarises the data and provides an overview of the distribution of key variables. The mean provides the average value of a variable, while the standard deviation measures the spread or variability around the mean. The coefficient of variation provides a standardised measure of the spread relative to the mean, allowing comparison across different variables or groups.

Chi-Square Test: This test is employed to examine the association between categorical variables, such as marital status, district, family type and work participation among females in the fishing community by comparing observed and expected frequencies.

Independent Sample t-test: This is used to compare the means of two independent groups. It is used to examine the differences in work participation between fisherwomen who are employed and unemployed, concerning personal factors like family responsibilities and educational background. This is to determine whether certain variables have a statistically significant impact on the work status of females.

Analysis of Variance: ANOVA is employed to analyse the differences between more than two groups. It helps to test if there are significant differences in work participation across different districts or socio-economic categories. The study uses ANOVA to determine if the work participation rate differs significantly based on socio-economic factors such as income and family type.

Factor Analysis: This method is used to identify the underlying factors affecting the work participation of fisherwomen. Factor analysis reduces the data into fewer factors that explain the patterns of relationships. In this study, factor analysis is used to identify key dimensions such as preference of men, family responsibility, job opportunities or mobility, restrictions, family control and awareness, which are then analysed with work participation.

Binary Logistic Regression: Binary logistic regression is used to examine the determinants of female work participation. The dependent variable is binary (work participation: Yes or No), and independent variables such as educational qualification, marital status, family type and district of residence are considered. The logistic regression model helps to understand the likelihood of women's participation in the labour force based on these socio-economic and personal factors.

The logistic regression model is built as follows:

Dependent Variable: Work participation (0 = No, 1 = Yes)

Independent Variables: Categorical and continuous factors such as the educational qualification of the father, marital status, family type, balancing of income and expenditure, family responsibility and awareness.

The output of the regression analysis provides coefficients that represent the strength and direction of the relationship between the independent variables and work participation. Significant predictors, such as work status and family control (Women with highest family control" refers to a matriarchal, matrifocal, or female-dominated family structure where the mother or the eldest female is the primary decision-maker, head of the household, holds authority over household resources.) are identified based on their p-values (e.g., work status with a p-value of 0.000 indicates a significant effect on work participation).

In the study, the logistic regression model is constructed as:

$$\text{Logit}(P) = \beta_0 + \beta_1(\text{Education of Father}) + \beta_2(\text{Marital Status}) + \beta_3(\text{District}) + \beta_4(\text{Family Type}) + \beta_5(\text{Balancing Income and Expenditure}) + \dots$$

The logistic regression equation is used to calculate the probability P as follows:

$$P = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n)}}$$

Where:

e = the base of the natural logarithm (approximately 2.718),

P = represents the probability of work participation (1 = Yes, 0 = No),

$X_1, 2, \dots, X_n$ are the predictor variables, such as education, family type and marital status.

Regression Analysis of Work Status on Socio-economic Empowerment and

Support: The study also conducts a regression analysis to evaluate how work status influences socio-economic empowerment and support. The regression model examines the relationship between work status (employed versus not employed) and various socio-economic factors. It provides a better understanding of how employment status impacts empowerment and support structures for fisherwomen.

Model Equation:

The regression model can be expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \epsilon$$

Where:

Y represents the dependent variable (Work Status: 1 = Employed, 0 = Not Employed),

β_0 is the intercept (the baseline value when all predictors are zero),

$\beta_1, \beta_2, \dots, \beta_n$ are the coefficients for the independent variables,

X_1, X_2, \dots, X_n are the independent variables (e.g., socio-economic factors, family support, job mobility, etc...),

e = the error term, capturing the variation not explained by the independent variables.

Independent Variables:

The independent variables include factors such as:

Family Responsibility (average of variables from factor analysis),

Job Opportunities or Mobility (average of variables from factor analysis),

Family Control (average of multiple variables from factor analysis),

Awareness (average of related factors),

Balancing Income and Expenditure (binary: Yes or No),

Educational Status,

Marital Status,

District (for geographic context).

The regression equation for this model can be written as:

$$\begin{aligned} \text{Work Status} = & \beta_0 + \beta_1(\text{Family Responsibility}) + \beta_2(\text{Job Opportunities}) + \\ & \beta_3(\text{Family Control}) \\ & + \beta_4(\text{Awareness}) + \beta_5(\text{Balancing Income and Expenditure}) + \beta_6(\text{Education Level}) + \\ & \beta_7(\text{Marital Status}) + \beta_8(\text{District}) + \epsilon \end{aligned}$$

1.8. Significance of the Study

Gender disparity in labour participation is a global issue, widely prevalent in the fishing sector of Kerala, where the fisheries sector is a major source of income for the people. Though women play an important role, they are underpaid, marginalised and highly exploited and mainly concentrate on informal work. This study highlights the structural, cultural and socio-economic factors that lead to gender-based inequalities. This study sheds light on the gendered division of the labour force in the fishing sector and informs potential policy interventions. Addressing various constraints faced by female fisherfolk helps policymakers to develop programs for

improving gender equality and women's empowerment in the fisheries sector. It also discusses gender equality in the labour markets of the informal sector.

On a socio-economic level, the significance of this study extends to its potential impact on the overall well-being of fishing communities in Kerala. Increasing women's participation in the labour force leads to improvements in household income, economic stability, and the social status of women. The study contributes to the economic development of Kerala, which enhances a more inclusive and equitable labour market, particularly in its coastal regions. Ultimately, the significance of this study lies in its capacity to bridge the gap between gender inequality and work participation and contribute strategies to enhance the socio-economic empowerment of women in the fishing communities of Kerala.

1.9.Limitations of the Study

One of the major limitations of the study is the lack of access to the latest Census data. The Census 2021 has not yet been conducted, which could have provided more up-to-date demographic information. The study faced challenges in sampling male participants, as most male members of the fishermen's community were engaged in work during the daytime, making it difficult to meet them for interviews. The COVID-19 pandemic and the impacts of frequent calamities such as storms like Okhi, cyclones, coastal erosion, tsunami and heavy flooding, were not included in this study, as the focus was primarily on work participation. Furthermore, there is a lack of recent data that is work-specific, caste-specific and gender-specific, which limits the in-depth analysis.

The reliance on secondary data, predominantly from the Periodic Labour Force Survey (PLFS), which may not fully capture the nuances and specificities of the fishermen community in Kerala, especially concerning gender disparities in work participation, restricts further exploration. The sample size may not entirely represent the diverse perspectives and experiences of all sub-groups within the fishing community. Self-reported data in the primary survey may be subject to response bias or misinterpretation of questions, especially when participants may not fully understand the academic nature of the survey. The study focuses primarily on two

districts, Thiruvananthapuram and Malappuram, limiting its regional coverage and possibly excluding other areas with differing socio-economic dynamics. Finally, the study does not account for long-term changes in work participation due to external socio-economic factors, such as government policies, technological changes and migration patterns, which could influence the future dynamics of the fishing industry in Kerala.

1.10. Chapter Schemes

Chapter 1: Introduction: This chapter introduces a detailed statement of the research problem, highlighting the objectives of the study and discussing the methodology employed. It includes the area of study, sampling procedures and the tools and techniques used for data analysis and interpretation. The theoretical background and significance of the study are also presented to provide context and underline the importance of the research.

Chapter 2: Review of Literature: The second chapter contains a broad review of the existing literature on the topic. It is mainly focused on empirical studies. It is again subcategorised, including the constraints faced by coastal women, empowerment programs for fisherwomen, the impact of inequalities in the fisheries sector, the low female labour force participation and the socio-economic status of fisherwomen. This review identifies the research gap and establishes the foundation for the study.

Chapter 3: Gender Disparity in Work Participation: A Theoretical Framework: This chapter contains the theoretical and conceptual frameworks that lead the study, drawing on human capital theory, the Capability Approach

Chapter 4: Female Work Participation and Gender Disparity: A General Overview: This chapter provides an overview of female work participation rates from an international, national and state perspective. It highlights the Malappuram district and Thiruvananthapuram district, which are the main areas of the current study and provides important context for understanding the local scenario. Gender disparity in work participation is also discussed in this chapter.

Chapter 5: Socio-Economic Characteristics of Fisherfolk: It portrays the socio-economic characteristics of the fisherfolk in the sample villages. It depicts their living conditions, educational status, health status, occupation, house size and land ownership. The chapter also analyses the reasons for socio-economic backwardness among the fisherfolk.

Chapter 6: Female Work Participation among Fisherfolk: This chapter deals with female work participation within the fisherfolk community. It highlights the major determinants of female work participation and shows the relationship between socio-economic factors and work participation.

Chapter 7: Work Participation of Fisherwomen: Major Constraints: This chapter depicts various constraints faced by fisherwomen in work participation. The cross-tabulation and Chi-square tests have been used for the analysis of data in this chapter.

Chapter 8: Gender Disparity: Extent and Role of Work Participation: This chapter provides an investigation of the extent of gender disparity in the work participation of fisherfolk. It examines the socio-economic implications of these disparities within the community and the role of work participation in gender disparity.

Chapter 9: Empowering Female Fisherfolk: Awareness and Use of State Support: This chapter evaluates government interventions aimed at enhancing female work participation among fisherfolk. It examines the awareness and utilisation of government programs by fisherwomen. The given chapter sheds light on the effectiveness of these initiatives and barriers to their full implementation.

Chapter 10: Findings and Conclusion: The final chapter presents the key findings of the study and summarises the major insights derived from the data analysis. It provides a conclusion based on the objectives of the study and offers recommendations for future policies and research in the field of female work participation among the fisherfolk community in Kerala.

CHAPTER II

REVIEW OF LITERATURE

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- 2.1 Introduction
 - 2.2 Gender Disparity and Work Participation among Fishing Communities
 - 2.3 Empirical Reviews
 - 2.4 Research Gap
 - 2.5 Conclusion
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CHAPTER II

REVIEW OF LITERATURE

2.1.Introduction

Globally, the labour force participation rate of women stood at 47.4 as compared to 72.3 per cent for men in 2022(ILO's Global Employment Trend Report 2023). For women, there is a poor prospect of mobility in the labour market (ILO's Global Employment Trend Report 2013). The job market participation rate of women has been stagnant at less than 50% for the last 25 years (United Nations report 2023 on female work participation). Differences between male and female participation rates have narrowed; still, there are significant differences that remain in most of the regions of the world. The highest gap is observed in the Middle East and North Africa, followed by South Asia and Central America. The gender Gap in the Japanese labour market stands at 25 percentage points, compared to just over 10 percentage points on average in the major advanced economies and only 6 percentage points in Sweden (World Bank).

The Global Gender Gap Report of the World Economic Forum (2023), states a 60% of the global gender gap in economic participation and opportunities. This indicates that, on average, women have only 60% of the economic opportunities available to men. Women's participation in the global workforce is significantly lower than that of men, and they are more likely to be concentrated in lower-paying, informal and risky jobs. The report also highlights that women continue to face a substantial wage gap, earning approximately 77% of what men earn for the same work. Furthermore, women hold fewer leadership positions globally, with only 29% of senior management roles occupied by women (WEF, 2023).

The female work participation rate in India was 32.8% as per the periodic labour force survey 2021-22 (Ministry of Labour and Employment, Directorate General of Employment, employment statistics focus on 2023). The low female work participation is the result of various socio-economic and cultural barriers, such as

limited access to education, skills, etc. The International Labour Organisation (2020) report highlighted that the participation of women in the formal labour market of India is significantly lower than men, particularly in rural areas, where traditional gender roles are more entrenched. According to a study by the McKinsey Global Institute (2020), women in India earn 35% less than men, with the wage gap being particularly pronounced in the agriculture and manufacturing sectors. Women in India also face barriers to leadership roles, with only a small proportion of women holding positions in senior management or political office.

India's G20 Presidency in 2023 listed women-led development as one of its six priorities, amid rising global attention towards the workforce participation of women. Professor Claudia Goldin highlights the key drivers of gender differences in the labour market and has gained widespread recognition for her work on gender-biased labour force participation. (Economic Survey 2024-25). India Ranks 120 out of 131 countries in women's labour force participation (Borker, 2016). According to the National Estimate for 2012, India's female labour force participation rate for ages 15- 24 was 32.57.

Kerala, despite being a model state for its social development indicators, also experiences gender disparity in work participation. The state had shown that the female work participation rate was only 18.23 per cent by the 2011 Census (The Gender Statistics Report of 2016-2017). The female work participation ratio on the usual status basis in the state during 2009- 10 and 2011-2012 was 26.6 per cent and 23.7 per cent. Among the districts, Idukki had the highest labour force participation of 33.2 per cent and Malappuram had the lowest of 7.6 per cent (2011 Census). In 2009-10, Kerala had 29.4 per cent of the women labour force doing self-employment, 37.6 per cent females was engaged in regular salaried jobs and 33 per cent in casual labour. But it was 32.1 per cent in self-employment, 28.4 per cent in regular salaried and 39.5 per cent in casual labour by 1999-2000 period (NSSO 55th and 66th round unit level). In 2021, global labour force participation was 39.2, in India, it was only 20.3 in 2021 (World Bank data.com). The female literacy in India was 68.4% and Kerala had 97.9% in 2015-16 but the male literacy during this period in India was

85.7% and in Kerala was 98.7%. (<https://spb.kerala.gov.in/economic-review>). NSSO 68th round shows the highest female LFPR in Kerala was Wayanad with 27.9 and the lowest LFPR was in Malappuram with 7.6 in urban areas, while in rural areas it was 11.6 in Malappuram and 22.3 in Wayanad (Economic-Review, 2017-18).

Kerala Development Report (2019) highlights that the female labour force participation rate in Kerala is higher than the national average, at around 20-25%. However, this figure still reflects significant gender inequality, as the male labour force participation rate stands much higher, at around 70-75% (Kerala Development Report, 2019). Though there is a large number of females working in the agriculture and fisheries sector in Kerala, their work is undervalued.

2.2 Gender Disparity and Work Participation among Fishing Communities

Gender disparity in work participation is a transnational issue, particularly in sectors such as fishing, where the contributions of women are undervalued despite being essential for the economy. This disparity is transparent not only in the broader global context but also in national and regional settings.

The fishing industry has traditionally been male-dominated, with men engaged in active fishing at sea, while women's roles in fish processing, selling, and household-related tasks often go unnoticed. The Food and Agriculture Organisation (FAO, 2015) states that women are highly engaged in (around 12%) the global workforce in fisheries, yet their work is mostly in post-harvest activities. The FAO (2015) notes that women play a vital role in ensuring food security through their involvement in processing, marketing and value-added activities, contributing significantly to household incomes in fishing communities. However, the post-harvest activities carried out in the unorganised sector are often not reflected in labour statistics, which is the main reason for the underrepresentation of women in official labour force participation figures. As a result, women in fishing communities face challenges related to unequal access to resources, limited decision-making power, and a lack of representation in leadership roles within the sector.

The fishing sector in India is the main source of livelihood for millions of people, especially in coastal states like Kerala, Tamil Nadu and Gujarat. Ministry of Fisheries, Animal Husbandry and Dairying (2020) estimated that approximately 14.5 million people are involved in the Indian fishing sector, with a significant proportion of women. The gendered division of labour in fishing communities across India is reinforced by cultural norms that assign fishing as a predominantly male occupation. In terms of labour force participation, the National Statistical Office (NSO, 2021) reports that the female labour force participation rate in India remains low, at 23.7% in 2020, compared to 75.7% for men. This disparity is common in rural and coastal areas where the fishing communities are located. The dual burden of women is household responsibilities and their work in post-harvest activities, which restricts their ability to seek alternative or supplementary income sources.

Despite significant progress in education, healthcare, and overall gender equality, Kerala still faces challenges related to gendered work participation, especially in its fishing communities. Kerala Development Report (2019), states that women in coastal regions of Kerala, especially those engaged in fishing-related activities, continue to experience a lack of recognition and unequal access to economic opportunities. While the state has a higher female labour force participation than the national average, hovering between 20% and 25%, participation in the formal fishing sector remains heavily gendered. Women are largely involved in post-harvest activities such as fish cleaning, drying, processing and marketing, while men predominantly engage in fishing at sea. The economic benefits for women in these roles are often minimal, and they face limited access to financial services, credit and training that could allow them to break out of low-wage, informal work (Kumaran, 2014).

In Kerala, women's participation in the fisheries sector accounts for 11% in urban areas and 22% in rural areas. (IWWAGE, KREA University). Both state and central governments have taken several steps for the betterment of weaker sections of society. Gradually women in the fisheries sector have become a hot topic of debate and discussion of mainstream (Pandey, 2017). The fisheries sector has a pride of place

in the national economy of India. The fisheries sector has a pivotal role in the socio-economic development of the country as it helps to increase food supply, generate employment opportunities, raise nutritional levels, earn foreign exchange etc... (Salim et al, 2011). The fisheries sector has determined the economy of Kerala for a long time. The majority of fishermen are from poor and marginal sections of the state. CMFRI estimates that Kerala has 6.66 lakh tonnes of fisheries potential. Kerala accounts for 20% of national fish production. Central Marine Fisheries Statistics records, that in 2014-15, fish production in Kerala was 7.26 lakh MT. The socio-economic status of marine fisherfolk of India has improved a lot since independence, but much lower than the other sections of the Indian economy. Despite various social security and government empowerment programs, the vulnerabilities of fishermen are not being adequately addressed by the competent authorities. Their upliftment is the need of the hour and essential for the sustainable development of the state (Shamila, 2022). Fisherwomen form an invisible workforce, but they are dominant in shore-based activities like processing, vending and fish trading (Mahesh et.al, 2016). Many projects implemented through Kudumbasree programs were not applicable in coastal areas due to the lack of interest of the community to mingle with others and the lack of skill-oriented women from fishing communities (Shakir, 2017). The fisherfolk population in the state is 11.114 lakh. The population of fishermen is highest in Alappuzha with 1.86 lakhs followed by Thiruvananthapuram. Fishers contribute 1.08% of India's GDP. India has a coastline of 8219 km with 3937 fishing villages. Kerala has a coastline of 590 km. Thiruvananthapuram has 78km of coastline and Malappuram has 70 km.

Seasonal variations in fishing and climate-related challenges aggravate the gender disparities in these communities. Women bear the additional burden of increased domestic responsibilities during the off-season when men migrate for alternative employment. This extra burden restricts their ability to engage in supplementary work or diversify their income sources. Despite these challenges, there have been recent efforts in Kerala to empower women in the fishing communities by providing training, access to microfinance and promoting women's cooperatives,

which have shown promising results in improving their economic independence (FAO, 2015).

The situation in India and Kerala is a miniature form of broader global trends, where women are relegated to secondary roles in the fishing industry and face systemic barriers to achieving economic independence and recognition. Addressing these gender issues requires targeted interventions, including policy reforms, improved access to resources and initiatives that support the labour participation of women in all aspects of the fishing industry.

The low female work participation has acquired greater importance in recent times. Work participation refers to the percentage of persons engaged in the labour force. The economics of the gender gap in work participation among the fishermen community highlights constraints faced by fisherwomen, programmes for fisherwomen empowerment, the impact of gender inequalities in the fisheries sector, low female work participation and the socio-economic status of fisherwomen. This chapter provides an overview of the main studies on the work participation of females, especially fisherfolk and gender disparities in the sector.

2.3. Empirical Reviews

2.3.1. Constraints faced by coastal women

Jeeva (2021) tries to assess the relevance of Self Help Groups (SHG) as a sustainable and need-based intervention for coastal women. The study was conducted on 240 women of 24 SHG of 4 districts of Kerala (Kannur, Ernakulam, Thrissur and Kollam) by using multi-stage stratified random sampling. It is found that aqua tourism is the most potential livelihood option for coastal women. Fish drying units, preparation of fish value-added products, catering units, fish prawn feed manufacture, fish prawn seed collection and collection of bivalves were the sustainable livelihood options. The constraints faced by coastal women include lack of access to institutional finance, low level of literacy, lack of gainful subsidiary occupation, low income, distress sale of fish to money lenders and lack of financial assistance. The study points out the need for greater interventions in the form of training, technical guidance and

facilitating access to institutional finance. Women entrepreneurs require expansion of the informal education, empowerment of women through the promotion of rural women entrepreneurship, market promotion through cooperatives and NGOs, selection of technology transfer programmes, integrated approach and formation of women demand groups, gender-inclusive programs and approaches. The development of gender-friendly technology can improve the working and living conditions of women.

Mahesh, *et.al* (2016) deal with the awareness and participation of fisherwomen in beneficiary programs of the state fishery department. The study finds that only 67 per cent of respondents have a medium level of awareness of the program, and 50 per cent have a very low level of participation in the program. The constraints faced by women involved in marketing were high interest rates charged by money lenders, lack of cooperation from fishery officials, lack of proper allotment of space for fish retailers in the marketplace, long working hours and travelling long distances to and from distant markets to buy and sell fish. The study finds that women in fisheries are a non-existent category for policymakers. Despite their important role in fisheries, they remained invisible. The study further shows that the majority of women retailers have a minimum awareness of beneficiary programs, followed by low and high percentages of awareness. The participation of fisherwomen in beneficiary programs was relatively low and mainly depended upon illiteracy and requisite skills. Startup problems faced by fisherwomen include securing finances, obtaining credit or loans either from banks or suppliers, long hours of work, malnutrition and obtaining quality raw materials. High rates of interest, lack of public transport to market, lack of ice and proper storage facilities, problems at marketplaces like informal taxes and poor market infrastructure are the major constraints faced by the fisherwomen (ICSF 2010). Most retailers feel that they lack the necessary skills, abilities, exposure and poor networks. The study concludes by suggesting the construction of a proper marketplace with basic facilities for fish marketing, a free health camp for fisherwomen, encouraging them to become government-sponsored SHG and provision for a hygienic working environment. The study concludes that the economic

participation of women is underestimated and their economic potential is not fully utilised.

Müller, *et. al.* (2016) determined the health-related quality of life of artisanal fisherwomen and shell gatherers from Saubara municipality in Brazil and compared this to the general population. The study finds that the health conditions are related to the work activity of fisherwomen; there is a prevalence of MSDs (Musculoskeletal Disorders), hypertension, arthritis, body pain, lower education and low quality of health among older people. It suggests that public health policies must consider these informal workers who contribute greatly to the food and income of Brazil. The study suggests that these informal workers are at the margin of public policy and do not get any protection from occupational risk as compared to formal workers. Public health policies and social benefits must be more inclusive of these informal workers.

Turgo (2015) found that the catch of fish in the Philippines declined because of pollution. This study looks into the economic, gender and power relations as the community is restless with the challenges of the local fisheries crisis. This article shows the impact of overfishing, unlawful fishing, dynamite fishing, cyanide fishing and climate change. This small-scale fishing is unprofitable in San Juan Province. Fish marketing is more profitable than fishing. When the fish supply declined, most of the men were engaged in household chores and their wives worked as fishmongers. Sometimes wives have to experience physical harassment from their husbands. This article also examines how the restructuring of the economy affects the lives of men and women in a particular community. Men experience disrupted masculinity, hyper-masculinity and differences in responses. The local economic restructuring led to experiencing different gender dynamics by both men and women. They have hope that when new opportunities emerge new dynamics will emerge. These difficulties and endless challenges faced by Philippine communities echoed the gender dynamics emerging in various parts of the world. This study shows that the woman had to face a double burden as she had to make up for her husband's declined income and had to attend to the family problems. This study shows that women suffer more than men.

Monfort (2015) Found that the participation of women in the food industry was constrained by cultural rules, societal constraints, discriminatory laws, climate changes and deterioration of marine resources. Although women are active and capable in all areas, they remain invisible, underpaid, and lack institutional support. The participation of women in fishing was different in different countries. In Cambodia, Thailand, Congo, Benin and Mali, women go fishing with their boats. In West Africa, women finance fishing operations run by men. In Europe, the roles of women in fisheries include marketing, communicating, overall management, bookkeeping and practical backup.

Hong & Sullivan (2013) in their attempt to fill the gap towards adaptive management in small-scale fisheries by analyzing gender dimensions of fish trade in Zanzibar and Tanzania. It is observed that women fish traders had less access to economic and social resources, high-profit markets and high-value fish, which all resulted in a low level of income. Less access to fisheries resources affected their livelihood and household. The gleaning of invertebrates and near-shore fishing by women was undervalued and not included in fisheries statistics. Traditional beliefs, norms and laws made these women confined to the lower strata of fish value. This leads to gender disparity in income and ultimately to poverty. The study also found that the number of women entering the fish market increases because of a lack of other sources of livelihood and also the need of each member of the household to contribute to family income. Men and women spend an average of 8 hours a day and the working hours of women may increase again corresponding to household work. To earn additional income 33 per cent of women and 19 per cent of men were engaged in the trading of agriculture, food and soap-making firms besides the trading of fish. Men have membership in self-help organisations. But no women were members of any organisations mainly because of their perception of no time and some women requested government support for this. Women lack access to the main markets. None of the women had their vehicles to reach the market. Microcredit, savings and interest-free money lent by friends are the main sources of their seed capital. Women cannot compete with men in the auction market as they have less experience, contact and

capital. Women have positive attitudes towards the fish trade as they have a sense of confidence and independence.

Thanalaskmi & Mohaideen (2011) conducted a study on 'Achievement motivation of the students of the fisherfolk community in Tuticorin district'. It reveals that fishermen differ from other occupational communities, because of their unique lifestyle. They are often not fishermen by caste but by choice. Some of the agricultural farmers changed their occupations because of the heavy effect of the monsoons and took to fishing. Because of this reason, their children cannot have good achievement motivation. Studies on this aspect are very rare. Hence, this study is undertaken to find out the level of achievement motivation in the students of the fisherfolk community and the difference among them concerning the variables, gender, type of school, medium of instruction, religion, locality, and number of siblings in the family. Their achievement motivations in general and in the different dimensions were found to be moderate. English medium students and matriculation school students were found to have better achievement motivation than their counterparts.

Holly (2017) The variables studied in the article 'Gender work and household survival in South Indian fishing communities, East Carolina University are age, marital status, educational level, household assets, sources of income and credit, economic and financial decision-making, gulf migration, injuries, death etc...The methodology was interviews for collecting primary data. It finds that women are responsible for household chores. Mechanisation and commercialisation have pushed women out of fish marketing in the Kollam district of Kerala. Men have second jobs to supplement their income during the off-season. Fisheries in India experienced economic transformation and ecological crisis.

Sahu et al. (2009) identify that fisher people are marginalised. The problems they faced were poverty and exploitation. The women have the responsibility of running the household and caring for children, still, they are invisible. Data was collected through field surveys and stratified sampling. The size of the sample was 360 fisherwomen. The important variable to study was the reason for indebtedness. The main findings were that this fisherwoman had no education, had child marriage,

lived in inbuilt houses, mostly on government land, the village had fewer infrastructural facilities, health conditions were not good and their efforts and contributions were invisible. The objective of this study was to analyse the core reason behind the ongoing and increasing misery of fisherwomen in the study region. They find that money lenders, liquor merchants and fish merchants together make the fisherwomen in the subsistence economy. The variables they chose to study also included assets, income, problems, opinions on the environment etc... Their tools of study were multiple regression analysis and paired t-tests. Their findings were that the health conditions of fisherwomen are not good, they suffer from low and subordinate socio-economic status. Modernisation of marine fisheries causes the fisherwomen to lose control over their lives.

Geeji's (2019), study focuses on women in fisheries and finds that the majority of women engage in fish marketing work 7 to 10 hours a day and 5 to 7 days a week. Their fish venting was mainly through head load. This study finds that dry fishing is mainly done by fisherwomen who belong to vulnerable communities.

Ogden (2017) focused on the invisibility of the contributions of women to the fisheries sector. There are many constraints for women to recognize their contribution like lack of financial aid, time, interest and perception. Men did not pay trust in the fish harvesting capability of women and competent authorities did not recognise their services. The study concludes that women fisherfolk may become experts in their areas of work by empowering them through education and skill development.

Harikumar & Rajendran (2007) in their study of the fishing sector find the depressing role of middlemen in fish marketing. The commission agents are making undue advantages at the expense of primary producers and consumers. The important defects of this sector are handicaps in backwater patrolling, decreasing share of state marine exports, the unexploited potential from sports and tourism, depletion of the stock of commercial species, aquatic pollution and unhygienic conditions prevalent in fish markets. Underutilisation of the installed capacity of the processing plant, destruction of mangroves, high fishing cost, backward condition of coastal communities, clandestine introduction of exotic fish and lack of insurance scheme for

shrimp/fish culture are other constraints. The study concludes that declining fisheries wealth needs to be recouped by new projects and the production of value-added fish products in the state.

Arathi (2012) points out that the fishing community is neglected and marginalised despite the high HDI of the state. To uplift this community the state has been taking the initiative from the 3rd five-year plan onwards by creating infrastructure facilities like fish landing centres, fish harbours, fish dispensaries, guide lights, fisheries schools, Fisheries Research Institutes, fisheries roads and fish community centres. Kerala has a large variety of fish and highly skilled fisherfolk which makes Kerala a leading producer and consumer of fish. The fish landing in Kerala comprises 10 % of the total fish landings in India. The share of fish export of Kerala was 19 % of marine export of India in 2005 -2006. However, the fishermen have their geographical isolation and they concentrate in coastal areas and live in slum-like settlements. The low-income earning opportunities, poverty and deprivation, unsanitary and overcrowded living conditions and lack of access to basic facilities like water and health care are common in their settlements. Low sex ratio and high infant mortality are the main causes of fisher folk marginalisation. The fishing villages are different with high-density, clustered houses with a lack of basic facilities and less hygiene. Both fishermen and women appear to be hard-working. There are a large number of dropout from their community in the school. Women are busy with transporting the fish to market or engaging in small trade; otherwise engage in household chores.

Abha, et.al (2013) found that most fisher families stay in government lands for a long period. The major occupation of fisherwomen was dry fish production. The secondary occupation of women was wage labour in shrimp export companies, ice factories, net weaving, poultry, prawn peeling, farming, icing etc... They have high social participation through SHGS and better decision-making power in their trade and family. The dry fish trade was mainly on low and medium-valued fish. This dry fish is mainly used for fish meal production and also as a feed to ducks. Procedures in dry fish production such as sorting, cleaning, salting, curing, drying, packing, storage

and marketing were mainly done by women. Women involved in post-harvest fishery activities often lack key skills like site management, packaging, and quality assessment. Fisherwomen are mainly exploited by non-institutional sources of credit. Improvement in capacity building, infrastructure facilities, marketing channels and credit facilities are needed for better livelihood of fisher families. They were largely dependent on their male counterparts in making decisions in their dry fish businesses. Only a few fisherwomen had training from government institutions and NGOs. The major constraints in the post-harvesting process are the non-availability of good quality raw materials, lack of alternate drying methods during the rainy season, unavailability of proper infrastructure facilities for drying, absence of open and clean space, contamination with sand microbes, attack of insects, birds and animals, non-availability of proper storage facilities, fewer credit facilities, middlemen interference and transportation.

Katia & Gerrardsiri (2018) in their study show that lack of attention to small-scale fisheries has inevitably led to the marginalisation and indivisibility of women. This article further reveals that women's participation in decision-making bodies related to resources is limited.

Abhinandan, *et.al* (2019) concentrate on the concept that though women contribute a lot to fisheries, their contribution is invisible. This study reports that women have long and rigid working hours and they have to travel long hours while the ownership of land and other productive resources mainly belongs to men. The study underlines that India is the second largest fish-producing country; fishing is a primary industry giving employment to 14 million people. India's fish production during 2016-17 amounted to 11 million metric tons. The number of women in fisheries was around 46 per cent in the world and 72 per cent in India (FAO 2016).

2.3.2 Reviews on Programme for Fisherwomen's Empowerment

Shakir (2017) attempted to look into the programmes implemented in Kerala for fisherwomen empowerment. This study found that the Government introduced various measures to attain women empowerment and poverty eradication such as Gender Park, the Vembanad Project and Theeramythri, the Tsunami Emergency

Assistance Programme, Prime Minister National Relief Fund. These types of ventures provide both income-generating activities and skill-oriented training programmes. This article shows that Kudumbashree aimed for eradication of poverty with women's participation. Kudumbashree sometimes is not applicable in coastal areas because of less interest from this community and a lack of required skills. Theeramythri projects aim to encourage alternative livelihood options for the fishing community by providing economic assistance to start new micro-enterprises. SAF helped them with both economic and social empowerment. Many respondents criticised the political bias in recruiting project officers and questioned the existence of SAF products in a highly competitive condition of production, export and import. The variables they studied are income, standard of living and education of children.

Haque & Dey (2017) analysed the impact of community-based fish culture in seasonal floodplains, food security and employment in Bangladesh. It was found that fish production, income and food security of the households had improved with the adoption of an equitable and inclusive multi-stakeholder approach.

Zuzy (2012) focuses on the role of fisherwomen in adapting to uncertainties in two coastal communities of northern Java. This study used a multi-dimensional scaling method based on a modified version of the rapid appraisal for fisheries (RAPFISH) method. The study finds that development programs should also take into account the uncertainty in fisheries from the women's point of view. Fisherwomen play a greater role in the coastal economy than just their role in fisheries. By empowering women, poverty can be addressed in a better way that benefits both women and the coastal community. The main strategy used by women to cope with uncertainties is selling long-lasting fish products. Another coping activity was to form a group and invest to open up a kiosk business or coastal cafe. Women were very mobile and adaptable to market and seasonal uncertainties. The study concludes that by empowering fisher women poverty can be addressed more comprehensively.

Shyam (2012) aims at incorporating gender concerns in policy implementation, evaluation and monitoring of policies. The study analysed the empowerment level by finding composite empowerment indexes for fisherwomen.

Though women exhibit a high level of social and economic empowerment, they experience discrimination in storage, marketing and processing. SHGs and cooperatives are the networks of empowerment. The study recommends institutional arrangement ensuring equal opportunities for marketing, processing and also for institutional credits. Fisherwomen were politically more empowered than legally as they had less awareness regarding the rights of women. Economic empowerment is limited as they cannot handle bulk fishery, storage and transport, etc...

Goswami (2009) analyzed the involvement of rural women in the coastal fishery sector of West Bengal. For this purpose, he collected primary data from four villages inside two blocks namely Kakdwip and Namkhana in the South Parganas district of West Bengal. He used nine variables in his analysis and found that education, annual income and decision-making process had positive associations with the quantity of fish harvested by fisherwomen. The annual income and utilization of information sources had positive and significant associations. The size of the family, family type and areas of land had negative and significant associations with the decision-making process of fisherwomen.

Rajan (2003) attempted to create a link between producers and consumers. Though they contribute to household income, food security and local economy, their work is not recognised. Negative externalities have a strong impact on the life and labour of fish-vending women. The study found that the main problems of fisherwomen are exploitative practices at various stages of occupation from shore to the domestic market, absence of infrastructural and amenities, harassment from various parties, deflated fish prices, denial of public transportation, high rate of interest by money lenders, unhygienic market condition, lack of amenities for the rest, refreshment etc... The objective of the study is to find a way of empowering fish-vending women to overcome psychological, social and commercial barriers. A case study method was used for life history analysis. The variables used for the study were education, credit, health, employment and age. The study found that many youngsters below the age of 18 rush to nearby liquor shops and consume them. Their earnings are

very low. This study concludes that due attention was given to the sufferings of fish-vending women and empowered them by government initiative.

Kurian (2001) enumerates the problems and achievements of the state in providing social security measures to fisherfolk. This study shows how a developing country with limited means provides innovative social security nets to fight poverty and livelihood issues, especially for fishermen. This study attempts to show that this social security implementation was part of state policy and collective effort on the part of the fishermen community. The fishing community is in a disadvantaged position in housing, sanitation, education and safety at sea. *Matsyaboard* was the nodal agency for implementing welfare measures for fishermen. Most of the social security measures provided by *Matsyaboard* are protective. Social security measures reduce deprivation or vulnerability by using social means, making lives and livelihoods secure. Housing schemes, nutrition schemes and educational benefits for the children of fishermen were some of the security measures. The study finds that there is a lack of coordination between agencies in providing social security. The income from sea harvesting is fluctuating and unpredictable. In recent years it has seen an increase in social security programs especially for women including schemes for housing, education and training given by *Matsyafed*. These schemes have some limitations, including lack of coordination and balanced growth, delays in implementation, and late release of funds. More attention was given to fisherwomen through functional awareness and empowerment through education. *Matsya Bhavan* had inter-linkages with local *smithies*. It is found that most of the social security measures of the fishery sector meet the requirements of ILO.

Nair & Mini (1998) studied the empowerment of women in fisheries through co-operatives. This study revealed that fisherwomen are regulated by fishermen since they feel fisherwomen are involved in less productive areas like fish vending and other post-harvest activities. Fisherwomen engaged in fishery-related activities are marginalised due to technological changes. This has affected their income and also the income of their families.

Pillai (2007) argues that subsidies are indirectly contributed to unfair trade practices by WTO ideas. The trading of landed fish is not at all transparent and the price is controlled by auctioneers or buyers. All discomfort in processing and export finally affects fishermen. The state and central governments have to do a lot to save the economy from the fallout of free trade agreements. Both the centre and state can do well to improve the condition of the fishermen's community by providing them with more welfare and social security measures. This study recommends the establishment of a fishery import regulatory authority before imports are allowed. Hygienic handling is non-existent in most harbours leading to wastage and spoilage of fish and leading to high value erosion. Processing and storage facilities are far from sufficient. Though the price has tripled over the last decade, the benefits have hardly reached the fishing community. The state fisheries department is responsible for monitoring the fish produced till it reaches the hands of consumers. It keeps an account of the quantity imported, processed and re-exported, as the quantity wasted and lost. It also banned the sale of second-quality fish in the domestic market. The governmental involvement in capital and technology for handling, marketing, processing and transporting of fish may give better income and employment to coastal communities.

Pillai & Ganga (2007.) find that factors like sea water temperature, dissolved oxygen level, phytoplankton, zooplankton, salinity and global warming phenomena control the supply of pelagic fishes. Each year the success of pelagic fisheries is a balance between oceanographic factors (upwelling intensity, offshore water transport, water column stability) and fishing on stock. Sea surface temperature and phytoplankton pigments (from satellites and agencies) are used in the prediction of potential fishing zones to benefit the fishermen. Understanding the migratory pattern of pelagic is important for successful management of fisheries. The unpredictable nature of fisheries causes fluctuation in their market prices. The lack of proper storage facilities and a proper domestic market network makes the increased production of this protein-rich food a waste. This article stresses the importance of pelagic fishes as an important source of livelihood and nutritional security for fisherfolk and

consumers. The study further sheds light on the need for resources to be optimally and sustainably harvested.

Sini (2017) viewed that women's empowerment makes women economically independent and self-reliant. Through various five-year plans, governments introduced various initiatives for women's empowerment. The government of Kerala introduced a women's component plan at the local self-government level. In 1998 women-oriented poverty eradication programme, Kudumbasree, was introduced. This program is for starting entrepreneurs and income-generating activities by women. Kudumbasree creates a supportive environment for empowering women by making them aware of their rights and privileges.

Government of India (2015), in its study, highlights the basic problems of the fisherfolk as they are engulfed in the vicious circle of poverty and gender bias. This study finds that the empowerment of women is the need of the hour; the main tools for their empowerment are educating them on fish handling and product development through formal training. The training guided the maximum utilisation of the available resources and helped fisherwomen get better results.

Susanna (2018) tried to identify good practices that promote and strengthen the participation of women in a meaningful and effective way, to identify the barriers and constraints faced by women when participating in fisherfolk organisations. Major constraints women face in participating in organisational setups are the reluctance of state officers to hear the voice of women, the reluctance of men to accept their full participation because of a lack of confidence in their capabilities, the perception that organisation is not a matter of their work and interest, and the lack of formal education.

2.3.3 . Impact of Gender inequalities in the fisheries sector

Pooja et al. (2017) highlight that women have a significant role in the economy but the devastating repercussions of the inequality of women make them marginalised in areas like training and employment. Gender-based division affects the physical and mental health of women because of the nature of the job particularly the monotony, repetition, static nature and multiple responsibilities related to their job. This study

finds that women working in the informal sector face a lot of problems like a hazardous environment, excessive workload, extra work hours, lack of social security, lack of proper welfare schemes, low wages and partly non-implementation of existing legislation. Disorders of the musculoskeletal system represent a main cause for absence from occupation.

Sharma & Nagaichi (2014) in their study found that gender injustice in all perceivable areas was prevalent in Punjab. They tried to find out whether there had been an improvement in the status of women in the last forty years or not. Literacy rate, sex ratio and work participation rate were considered to judge the status of women. It was found that work participation and sex ratio did not increase with an increase in the level of education. There was no single district in Punjab with the work participation of females higher than that of males. The participation of women is higher in the rural sector than that of men because of the low mobility of women. Reproductive work and domestic roles prove to be significant variables in influencing female labour force participation. It is observed that there is a need to change the mindset of the people, and society needs to treat women at par with men.

Singh (2014) gives a glimpse of the gender disparity in rural work in Himachal Pradesh. The study took 300 households from marginal, small, medium and large land-holding categories. Data related to calorie intake, age, education, employment status, paid and unpaid work, income status, labour time used for farm and non-farm activities, the value of assets, etc., are analysed, and the gender-related development index (GDI) is calculated. The GDI shows that women are not getting equal opportunities as men. The biggest chunk of female time was used for unpaid work at home. Most women's work remains unpaid, undervalued, unrewarded and invisible. The main gender disparity was that males work in paid jobs and females work in unpaid jobs. Females spend more time on work than males annually. If unpaid work is valued properly women become equal bread earners in each household.

Ashaletha *et al.* (2002) noticed occupational segregation and wage discrimination among fisherwomen of Kerala. Their well-being, measured based on capabilities like morbidity, longevity, nutrition and education, is low. The dowry

system and marrying the girls at an early age devalues girl child, and the resulting neglect can be the main reason for this. Major issues of fisherwomen are social issues like poor social status, poor social acceptance and lack of representation in fishery cooperatives and other local bodies. Heavy dowry system, lack of a platform to express their views, restrictions to go for work, less interaction with development agencies, division of labour and wage discrimination, poor income, improper saving scheme, lack of marketing information, and poor working capital are the constraints.

Lockwood (1992) examines gender differences in control over land and labour in African agriculture and attributes them to economic history. Palmer (1991) on the other hand concludes that economic processes associated with structural adjustments highlighted gender biases. Both studies relate to African agriculture. Feminist economists like Elson (1993) are less optimistic than neoclassical economists about the ability of the markets to provide gender equity. Whitehead (1990) attempts to fill the gap between the neo-classical models that treat the household as a single unit and other models that treat men and women within the household separately. She challenges the view that the economic separation between husbands and wives is total. The gender-efficiency approach advocated by Kabir (1991) and Young (1993) highlights the importance of directing economic resources to women and the need for action-oriented political strategies to bring about women's empowerment. Young, who is among the few advocates of empowerment, also recognises the importance of more practical NGO initiatives as a means of politicising the issues of women. Westwood's (1991) study of SEWA (Self-Employed Women Association) in India highlights its success in generating and reproducing a collective consciousness among women workers.

Weeratunge et. al. (2011) argue that without analysing gender, the fisheries sector cannot attain sustainable development. This study focuses on market, migration, capability and wellbeing, network and identities, governance and rights of fisherfolk communities. Gender disparities affect not only women but also the community. Meeting gender-specific needs will result in sustainable resource management and improve gender equity. Ecological degradation, climate change and

depletion of aquatic resources limit their access to resources, and this will create gender inequality in the income of both men and women and lead to poverty. In Ghana, women invest in canoes and gear and offer loans to their husbands and other fishers. The absence of gender-disaggregated data in developing countries makes it very difficult to compare males and females in fisheries. Some contradictory views can be seen in the study that mechanisation creates a lot of employment opportunities in processing industries and at the same time it will displace men and women from small-scale fisheries, fishing by hand nets, etc... In processing plants, females get low wages compared to men for the same job.

Sarah *et.al.* (2012) find that small-scale fisheries play an important role in eradicating poverty among the fishing community. This study finds that the appropriate strategy for poverty alleviation and food security is the inclusion of women in policy and decision-making. The lack of gender-disaggregated data was the main constraint for improving gender equality.

CIWA (2015) calculated the gender work participation index in fisheries. For Punjab, Haryana, Kerala, U.P, Bihar and Odisha, it lay between 0.34 and 0.59 and in Nagaland, Manipur and Himachal Pradesh, it was less than 0.15. Unhygienic working conditions, lack of health care, poor sanitation and lack of safe drinking water are the main problems identified by the study. Women have limited access to resources. The ownership of land in women is only 20 per cent in developed countries, and it is only 2 per cent in developing countries (FAO, 2011). Women have less access to credit as they have no collateral securities to get credit facilities. The migration of men badly affects women in the fisheries sector as it brings an additional burden with household responsibilities and they have to engage in earning also. The study points out less decision-making power and unequal sharing of benefits among women. It also suggests gender-responsive research and gender mainstreaming in fisheries curriculum and stresses the need to encourage women's self-help groups.

Tripathi *et. al.* (2018) find that a high degree of wage disparity and gender inequalities result in variations in the socio-economic status of the fishermen

community. This study aimed to identify gender issues and their effect on the health status of fisherwomen. The variables studied in this article are health, wage rate, etc.

World Economic Forum (2019) found the gender pay gap in India at 34 per cent. Women face social discrimination, unequal access to education and depressed wages as their labour is considered degraded. Fishing is a sunrise industry both in India and Kerala. India is the second-largest fish-producing country after China. Fishing leads to the emergence of many related industries. It is a low-cost, nutritious food and the main source of foreign exchange. The sector engaged 14.50 million people at the primary level. In India, around 11 lakh fisherwomen live in 250 villages. The basic problem of this community is economic, as they are engulfed in a vicious circle of poverty and gender bias. The empowerment of these women is the need of the hour. The government of India undertook certain measures for their empowerment like educating them on fish handling and product development through formal training. Fishing provides cheap protein to the common masses, employment opportunities to the rural backward communities and valuable foreign exchange for the nation. The disparity in the work population ratio between males and females is highest for rural areas in Bihar and the urban sector in both Assam and Gujarat. Fisheries in India experienced economic transformation and ecological crisis during 2016-17.

2.3.4 Low female labour force participation

Sher Veric (2014) focused on the low labour force participation of women and its variation across the globe. The main reasons for the low participation are social and economic factors, including economic growth, increasing educational attainment, falling fertility rate and social norms. It is found that there is a fall in the participation of women in the labour market of India despite rising wages and income.

Mazumdar & Guruswamy (2006) examined female labour force participation in Kerala. The study examined the level and nature of the female labour force at the district level in Kerala between 1991 and 2001. It also analysed the sectoral shift of female labour into different occupational categories and the inter-district variation of the same. It also identified the demographic and socio-economic factors responsible for the changing pattern of female work participation across the state. The

demographic factors affecting work participation are sex ratio, fertility and migration. A decrease in fertility, favourable sex ratio and mortality rate lead to a growth in the working age group, but the work participation rate is at a decline because of low growth in adequate employment opportunities. The depressing effect of migration was that of low female work participation. The migration of unskilled and semiskilled labourers from another state again marginalises the women wage earners. The reductions in area under cultivation, reduction in operational holding and increase in employment in organised sectors have a strong negative correlation with female work participation. Changes in cropping patterns led to the replacement of wages earned by females with the hiring migrated labourers. The closing down of traditional industries like coir, beedi and cashews by unfair terms of trade, higher wages, and competition from big players adversely affects female work participation. The reduction of labour-intensive technology in domestic industries also leads to a fall in female work participation. Preference for salaried jobs above self-employment is another reason for low female work participation. In Kerala, there is a contradiction of social progress and the spread of education, facilitated by income from migration, along with fewer employment opportunities and a stagnant economy. Greater effort on the part of the government to start knowledge-intensive enterprises to revive traditional industries, and identifying and encouraging promising sectors, are their main suggestions for low female work participation.

Hassan and Diwan (2005) find that compared to men, women had a lot of workload both on the farm and in the household. With irregularity in the earning pattern of men along with livelihood sustainability, the women are forced to earn from other fishery-related activities. The main objective of this study is to assess the role of women in capture fisheries, the involvement of women in aquaculture practices and the nature and pattern of the involvement of women in post-harvest enterprises. It also aims to assess the wage structure, working conditions and empowerment concerning the SHG model and to give policy suggestions for women's empowerment. The main work in which women are mainly engaged is peeling, processing plant work, net making, curing, drying, small-scale fish trading, beach work, etc. Their wage rate and working conditions are very poor. Compared to men, women had far fewer

opportunities for education and training, and as a result, they acquired only the minimal skills needed in today's world. The main constraints of women in this sector are low prices and less market for their products. Six parameters, including food security, nutrition, income, community services, division of labour, fish processing and marketing, are taken to assess the position of women. This study suggests self-reliant participation, employment opportunities and eco-friendly technologies for women's empowerment. The authors stress the need for imparting training to fisherwomen in location-specific and resource-specific value-added products to earn valuable foreign exchange and employment by linking them with credit and marketing facilities. Pearl culture was suggested as an alternative micro and lucrative venture for women.

Rajan (2002) studied and found that work participation is high among old people. The educational status of fish workers is low, and illiteracy is high among them. Transport and communication facilities are poor in these areas. The main problems faced by Anjuthengu fishermen are theft, high pressure of fishing, double payment of auction commissions and comparatively low prices. Malaria and cholera are spread in the coastal areas through labour circulation. Low education status, lack of exposure to the outside world, lack of skills and lack of required economic motivation are the major stumbling blocks to occupational mobility. If the same trend continues, fishing pressure would further increase, resulting in chronic unemployment and disguised unemployment. The labour migration was not found in the survey areas. The proportion of the workforce in fishing and related activities has declined in the present generation. Though inter-sectoral and inter-generational mobility has not been pronounced, intra-sectoral technological mobility has vastly increased. Men engage mainly in fishing. Women take the responsibility of post-harvest activities, and children also engage in net-making and the repairing of fishing gear. Fishing for the traditional community was a village-based activity. Fishing nowadays is a lucrative commercial activity. Various reasons for shifting from one job to another are the continuous absence of fishermen from their families, which increases the burden of housewives, irregular flow of remittance, fishing efforts being concentrated in selected regions, reorganisation of work and division of labour.

Devi (2002) made an attempt to identify the determinants of female labour force participation in Kerala based on micro-level data. It is found that the important factors that shape job preferences consist of proximity to home, prestige and social status attached to the job. Security of job, adequacy of income and jobs corresponding to qualification were the other criteria in the preference for jobs. However, no one below SSLC found this as a factor in their preference for jobs. These findings suggest the need to reorient employment policies sensitive to the needs and constraints of women. The study concluded that the policies that ignored the economic role of women became harmful to women. Dissemination of knowledge to women about new technologies is essential for equipping them on par with men in the production processes. Upgradation of skills alone would go a long way in improving women's productivity and their earning potential, and above all, inculcating in them a sense of belonging. It is observed that policies often become insensitive to the needs and preferences of different sections of women. Unless policies are framed, whether for employment generation or overall development, with sensitivity to the needs of women, they are unlikely to yield the desired results.

Sheela & Krishna (2000) state that women contribute a lot to the fisheries sector. In coastal areas, women play an important role in fisheries, and in some parts of the world, they are good navigators too. Modernisation has diminished the role of fisherwomen, yet they play an important role in fishing activity. The authors suggest that women should be helped to participate in production activities without disturbing their domestic responsibilities.

According to Goldin (2023), female labour force participation follows a U-shape during economic development. In the early stages, when incomes are low and agriculture dominates, women often work, either as paid labourers or unpaid workers on family farms. When the income increases, often because of the expansion of the market or the introduction of new technology, the women's labour force participation rate falls. There may be a U-shaped relationship between the labour force participation of women and economic development. In poor countries, most women engage in farm or non-farm enterprises. When there is an increase in job opportunities for men and

partially because of social barriers against women, most women withdraw from the labour market. Women face constraints to join the labour force, either because of the law or social norms. In the early stages of development, the economic opportunities of men increase, and the workforce participation of women decreases. Regulations and social norms play an important role in India in determining the ownership of land. This study concludes that development leads to a decline in bias against girls and women.

Mehtrora et al. (2017) analysed the pattern of growth with low employment participation since 2005. It is found that the employment opportunities of women are crucial for women's empowerment. Government and policymakers need to take care of gender concerns to ensure women's empowerment and adopt better livelihood strategies for women. This study concentrates on the determinants of declining female employment participation and its constraints and problems. The main constraints of low female employment participation are reproductive roles, household care responsibilities, cultural sanctions, patriarchal hierarchies, continuance in education and migration after marriage, difficulties at home and workplace, the impact of marriage and inadequate and ineffective government skill training.

Mohammed Kutty, Palloli (2008) stresses that fishermen of the northern districts of Kerala (from Thrissur district to Kozhikode), mostly Muslims, come under the category of backwards. The employment participation of women of this religion is very low. The main reason for this was the lack of work experience and technical education facilities. Without changing this backwardness in the employment sector, it is not possible to ensure family security and eradicate poverty from the houses of Muslims.

Borkar (2016) listed the causes of low female work participation, which include social dimension, measurement issues, level of education, household income, jobless growth, occupational segregation, demand side, wage differential and gender discrimination. Measures for improving low female work participation include providing women with access to better education, training, child care and other

supporting facilities at the workplace, improving safety and creating more job opportunities.

McKinsey Global Institute (2018) indicates that India has one of the lowest shares of women's contribution to GDP (18 per cent) compared to the global average of 36 per cent. A growing tendency on the part of fishermen to move from one place to another was noticed. However, intra-sectoral mobility was highly increased as compared to inter-generational and inter-sectoral mobility.

Sandeep Pandy's CDS Report(2017) shows that the U-shaped hypothesis in the female labour force is true. The report proves that migration and resultant economic improvements lead to low economic participation by females. In the initial stage income effect led to a fall in the Female Labour Force Participation Rate, and the increasing part of the U-shape Hypothesis shows that the substitution effect and the opportunity cost of not doing work were high at this stage.

2.3.5.Socio-Economic Status of Fisherwomen

A study conducted by the National Agricultural Technology Project aims at 1) making a comparative assessment of the socio-economic status of the fisherwomen households and their standard of living in the coastal ecosystem of the selected states (Andhra Pradesh, Karnataka, Kerala, Tamil Nadu) and 2) suggesting policy measures for the improvement of the socio-economic status of the fisherwomen in the coastal ecosystem. A total of 5744 households were covered from these 4 states. The data were collected on family size, age, composition, literacy, occupation and income, maintenance of livestock, other assets ownership pattern, ownership of fishing equipment, level of indebtedness and expenditure pattern of fishermen households. Important tools used are the annual per capita income and Engel's coefficient. The study found that 70 % of the respondents belong to the Hindu religion, and most of them belong to the backward class. 70.49% of respondents were literate, 95 % of the respondents lived in their own houses, and 85 % of households had electricity facilities. Only 15.41 % maintained livestock. About 60 % of fisherwomen are involved in post-harvest activities. The main suggestion was the creation of opportunities in alternative income-generating activities for the fisherwomen,

especially in the post-harvest fishery. Creation of awareness about the importance of savings and investment in domestic and occupational commitments to improve their standard of living. Creation of suitable fishery infrastructure like common cold storage, freezing plants, and drying yards to facilitate the fisherwomen for post-harvest fishery activities on a group basis.

A study conducted by the Malabar Coastal Institute for Training, Research and Action (2011) revealed that dropping out of school had been the major reason for the educational backwardness of the fishing community of Malabar. The study observed that 75 per cent of students from the general category reached the secondary level. Whereas in the case of the fishing communities, it was only 40 per cent; even from this 40 per cent, only a limited number completed the 10th standard successfully. Though gender disparity in education is considerably less among fisherfolk of Malabar, it persists in some areas. There is no discrimination in enrolment among children as they ensure 100 per cent enrolment of both sexes. However, certain regions in the Malabar coast failed to retain the girl child in higher classes due to religious restrictions, young marriage and the compulsion of poverty. The extent of gender bias in retaining children in the schools varied widely between different districts. The majority of the children of both sexes discontinued their education before the 10th standard or immediately after that. Usually, boys engaged in traditional occupations immediately after leaving school and the girl child got involved in domestic chaos. There were multiple reasons associated with the premature leaving of the children from coastal schools. It was pointed out that teachers from the non-fisheries sector were generally reluctant to work in coastal schools and when it happened, they did their duty half-heartedly. Insufficient teaching staff, frequent transfer in a short period and high absenteeism adversely affected the performance of students. Another disturbing factor leading to dropping out of children was the unhelpful attitude of the teachers. Often teachers treated the students with contempt subsequently resulting in discontinuance of studies. There was a popular saying that a child on the farm or field is more productive and valuable than a child at school. This possibility has often been attributed as one of the strong reasons for fishing community children being kept away from schools. Though some of them had an interest in sending their children to schools

and even for higher studies, they failed to provide children with the required motivation out of their poor educational background, inadequate and unhealthy families support and cultural milieu. The fishing community traditionally lacked an educational culture and they had been kept aloof from the general educational background due to certain occupational practices. Since children could be employed in fishing and fish-related jobs, basic education was not felt as a compulsory factor. This perception towards the education of fisherfolk adversely affected the overall educational standard of the community.

Narayana Kumar et al. (2000) had undertaken a socio-economic analysis of marine fishermen in India. In this paper, the socio-economic parameters such as family size, age structure, educational and occupational pattern, customs, beliefs and the standard of living of the coastal fishermen's household have been analysed. In the socio-economic impact evaluation studies, the changes that had been brought about by the mechanization of the fishing industry in terms of income and employment generation and investment in fishing equipment were discussed.

Anbarasan (1984) describes the lifestyle, work, family and social status of 3 women. The main objective of the study is to determine the present role and status of fisherwomen, understand the pattern of decision-making and the role played by fisherwomen and to study the attitude of the fisherwomen themselves towards their problems, role and status. Random sampling method, qualitative research survey, interviews and participatory observation were used for this study. This study examined the socio-economic conditions of marine fisherwomen, their involvement in productive activities and the scope for improved and new income-generating activities to better their economic conditions. Social and cultural barriers prevented fisherwomen from equal participation in political decision-making and economic development. Fisherwomen were excluded from cooperative societies, they could not enjoy the benefits of banking and credit facilities or education. It suggested that the most urgent need of women was a better income. The experience shows that unless the government comes forward to subsidise the investment costs, such income-generating activities will not be economically viable. To get equal access to

government subsidies and social infrastructure facilities an organisational set-up was required. Fisherwomen who market fish in neighbouring villages sometimes get in return, not cash but commodities at the same time fishermen may get advance from net owners, or rich fishermen. No interest is charged, he has to repay the amount by working exclusively for the dealer of the loan or he has to give all his catch to this dealer.

Rekha et. al. (2017) show that low educational status, poor health, long hours of work and low income and savings made the lives of fish vendors more exhausted and underprivileged. The objective of the study is to analyse the socio-economic status of marine fish vendors in the Thiruvananthapuram and Alappuzha districts. It is found that there exists a significant difference in the socio-economic status of women fish vendors based on age, marital status and educational status. Most of them take this traditional occupation to support their family. Most of their houses are constructed and rehabilitated with government support after tsunami destruction.

Thomas & Jessy (1989) analysed the socio-economic factors influencing the educational standards of marine fisherfolk in Kerala. The study found that education did not have any direct influence on the skills of those engaged in fishing and related activities. Among active fishermen, youngsters were found to be more educated. A minority of those educated got employment outside the fisheries sector. Social deprivation was the major factor that hindered the educational attainment of fishermen.

Vinayan (2014) traced the socio-economic life of the fishermen community of north Malabar in the context of its historical evolution and identified the achievements of modern technical innovations and challenges to be addressed in the fisheries sector. The study shows that the life of fisherfolk has transformed very much with several other factors such as education, employment, gulf migration, and employment in other fields. The Department of Fisheries and other agencies helped them to rebuild their fate in a well-designed manner.

Nongmaithem & Ngangbam (2014) find that the socio-economic conditions of the fishermen in India at very low. Fishermen generally have less education and

live in unhygienic and improper housing conditions. Fishermen have to support a large family with low income from fishing, and as a result, they are compelled to borrow credit for the fulfilment of their basic needs, leading them into the vicious circle of poverty. This study found that training programs and scientific orientation were availed in a heterogeneous manner in most places of India.

2.4 Research Gap

The research on gender disparity in work participation within the fishing communities of Kerala remains limited. A few studies are addressing the specific barriers that women face in this sector. Existing literature has explored the gendered division of labour in rural and informal economies and there is a lack of focused research on the unique challenges and socio-economic constraints faced by women in the fishing industry. Most studies tend to generalise gender disparities in labour participation across sectors without addressing how cultural, social and economic factors interact to shape the roles of women in fishing communities.

Previous research has predominantly centred on women's roles in fish processing and marketing, neglecting the broader structural issues that prevent greater female participation in the primary activities of fishing. There is also an insufficient understanding of the relationship between various socio-economic factors such as education, access to resources, decision-making power and the involvement of women in the sector. Existing studies do not fully address how these factors contribute to or hinder the economic mobility of women within the fishing communities, and the limited data on this subject further exacerbates the research gap. This study aims to bridge these gaps by focusing specifically on the fishermen community in Kerala, giving a comprehensive analysis of gender disparity in work participation and identifying the structural and socio-cultural factors that perpetuate these inequalities.

2.5. Conclusion

Literature reviews on low female work participation highlight the urgent need for further structured academic exploration that could serve as a universal framework to discuss this issue. The empirical reviews show that, though there are different

studies on constraints faced by fisherwomen, programs for the empowerment of fisherwomen, socio-economic status of fisherwomen, the impact of gender inequalities on the fisheries sector and low female work participation, there are only a minimum number of comprehensive studies on gender disparity in work participation in the fishing sector of Kerala. Hence, the researcher makes an attempt to examine the gender disparity in work participation among fisherfolk in Kerala and the factors influencing the gender disparity. Further studies analysing the performance of programs being introduced by the government for the promotion of the conditions of fisherfolk and the studies in the areas of removal of gender disparity among fisherfolk and their work participation are very limited.

CHAPTER III

GENDER DISPARITY IN WORK PARTICIPATION: A THEORETICAL FRAMEWORK

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- 3.1 Introduction
 - 3.2 Theoretical Framework
 - 3.3 Conceptual Framework
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-

CHAPTER III

GENDER DISPARITY IN WORK PARTICIPATION: A THEORETICAL FRAMEWORK

3.1. Introduction

This chapter presents the theoretical framework supporting the research and explains the research design employed to achieve the objectives of this study. The study of gender disparity in work participation within the fishermen community in Kerala needs a structured theoretical foundation to understand the social, economic and cultural determinants shaping this phenomenon.

In the context of the fishermen community of Kerala, social norms, familial expectations, and economic constraints may create unique barriers for women seeking participation in the labour force, leading to a gendered division of labour specific to this community (Chacko, 2003; Kurien, 1995). Following the theoretical outline, this chapter also details the conceptual framework that aligns with the present research.

3.2. Theoretical Framework

This study draws on multiple theoretical perspectives to analyse gender disparity in work participation within the fishermen community of Kerala. The framework integrates human capital theory, Sen's capability approach, Kabeer's empowerment framework, theories of the gendered division of labour, social role theory, and labour market segmentation perspectives. These approaches provide a basis for understanding how economic, social, and cultural factors shape women's participation in work and contribute to persistent gender disparities in the fisheries sector (Becker, 1964; Sen, 1999; Kabeer, 1999; Eagly, 1987).

Human capital theory, as developed by Becker (1964), explains differences in labour force participation in terms of investments in education, training, and skills. According to this perspective, higher levels of education and skill acquisition enhance productivity and employability, thereby increasing the likelihood of participation in

paid work. In fishing communities, limited educational attainment and restricted access to skill development opportunities often constrain women's employability and confine them to low-paid and informal forms of work. Human capital theory, therefore, helps to explain variations in female work participation based on educational levels and supports the inclusion of education as a key determinant in the empirical analysis (Becker, 1964).

Sen's capability approach provides a framework for understanding women's work participation in terms of real freedoms and opportunities (Sen, 1999). In fishing communities, women's capabilities are shaped by access to education, financial resources, social networks, and institutional support, as well as by restrictions on mobility and traditional gender expectations. When women gain access to resources and opportunities, their capabilities expand, enabling them to engage more actively in income-generating activities. From this perspective, work participation reflects not only economic necessity but also the extent to which women can exercise meaningful choices about their economic roles (Sen, 1999).

Kabeer's empowerment framework further conceptualises women's participation in terms of resources, agency, and achievements (Kabeer, 1999; Kabeer, 2012). In many fishing households, women's access to resources and decision-making power is constrained by household power relations and traditional role expectations. When women gain access to resources through education, skill training, microfinance, and government support programmes, their agency is strengthened, enabling them to negotiate their roles within the household and community. Labour force participation is therefore viewed both as an outcome of empowerment and as a process that can further enhance women's agency and socio-economic position (Kabeer, 1999).

Theories of gendered division of labour and social role theory explain how culturally defined gender roles structure men's and women's economic activities (Oakley, 1974; Eagly, 1987). In the fisheries sector, men are primarily engaged in capture fishing and related activities, while women are largely concentrated in post-harvest processing, marketing, and casual wage work. Social role theory highlights that community norms and expectations regarding appropriate roles for women

influence the types of work women undertake and limit their access to certain occupations. These gendered patterns contribute to occupational segregation and reinforce disparities in work participation between men and women (Eagly, 1987).

Labour market segmentation perspectives further explain why women are disproportionately represented in informal, low-paid, and insecure employment (Doeringer & Piore, 1971). Structural factors such as regional economic development, the availability of local employment opportunities, access to markets, and transport and mobility influence the demand for female labour and the quality of jobs available. These structural conditions interact with household and socio-cultural constraints to shape both the level and nature of women's participation in work, thereby contributing to persistent gender disparities across regions and occupational categories (Doeringer & Piore, 1971).

These theoretical perspectives provide a coherent basis for analysing the determinants of female work participation, the constraints faced by women, and the extent of gender disparity in the fishermen community of Kerala. The integrated framework guides the selection of variables and supports the interpretation of empirical findings in relation to education, household relations, cultural norms, labour market structures, and institutional support mechanisms (Becker, 1964; Sen, 1999; Kabeer, 1999; Eagly, 1987; Doeringer & Piore, 1971).

3.3. Conceptual Framework

The study is guided by an integrated conceptual framework that draws on human capital theory, household bargaining and gender relations perspectives, labour market segmentation, and empowerment and agency approaches to explain female work participation and gender disparity among fisherfolk households in Kerala. The framework recognises that women's participation in work is shaped by multiple, interconnected factors rather than by any single cause. Individual characteristics, household dynamics, labour market conditions, socio-cultural norms, and institutional support systems interact to influence both the extent of women's work participation and the level of gender disparity within the fishermen community.

At the individual and household level, socio-economic characteristics such as age, education, marital status, household size, type of family, asset ownership, income,

and indebtedness play an important role in shaping women's ability and need to participate in economic activities. In line with human capital theory, higher levels of education and skills are expected to improve women's employability and access to better work opportunities, thereby increasing their likelihood of labour force participation. At the same time, economic vulnerability, low household income, and debt pressures push women into income-generating activities as a survival strategy, even when such work is informal, insecure, and poorly paid. These factors help explain variations in living conditions and livelihood strategies among fisherfolk households, in line with the first objective of the study.

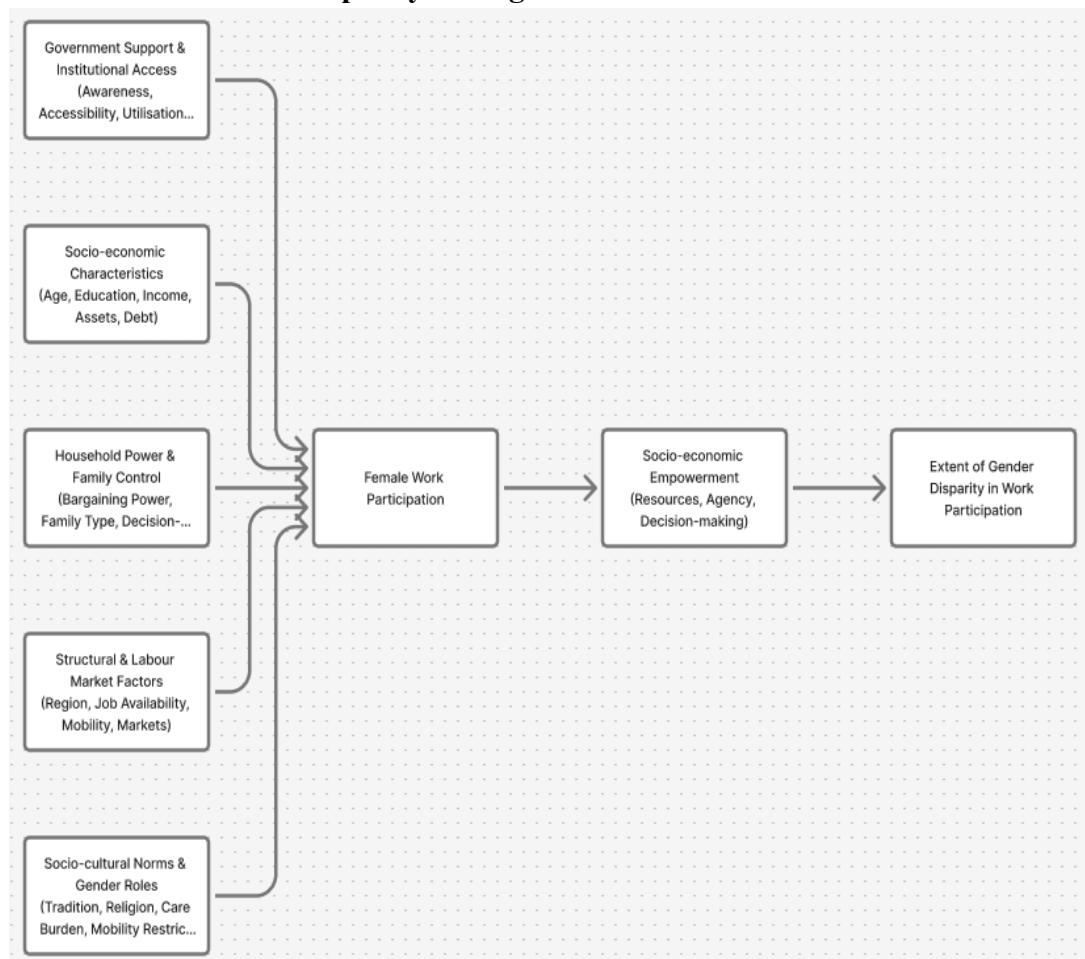
Household power relations and gendered decision-making processes form a key component of the framework. Drawing on household bargaining and gender relations theories, the study views female work participation as strongly influenced by women's position within the household. Factors such as control over resources, the nature of the family (nuclear or joint), dependency burdens, and the extent of family restriction over women's mobility and work choices affect women's ability to take up paid work. More societal restrictions and limited decision-making autonomy are likely to restrict women's participation or confine them to socially accepted, low-status forms of work. In contrast, greater agency and supportive household arrangements are expected to enable higher levels of participation. This perspective directly informs the analysis of determinants of female work participation and household-level constraints.

Structural and labour market conditions represent another important dimension of the framework. The fisheries sector in Kerala is characterised by a clear gender division of labour, with men largely engaged in capture fishing and women concentrated in post-harvest activities, processing, marketing, and casual wage work. Regional location, availability of local employment opportunities, access to markets, transport facilities, and overall regional development influence both the demand for female labour and the types of jobs available to women. These structural factors affect not only whether women participate in work but also the quality and stability of their employment, thereby contributing to persistent gender disparities in work participation across districts and regions.

Socio-cultural norms and traditional gender roles are also recognised as major constraints on women's economic participation. Community traditions, religious

practices, and socially accepted ideas about appropriate roles for women shape women's choices and opportunities in the labour market. Restrictions on mobility, heavy unpaid care and domestic responsibilities, and social attitudes towards women working outside the home act as significant barriers to participation and limit women's access to better employment. These socio-cultural factors are therefore treated as key explanatory variables in understanding the constraints faced by female fisherfolk, consistent with the third objective of the study (see Figure 3.1).

Figure 3.1 Conceptual Framework of Female Work Participation and Gender Disparity among Fisherfolk in Kerala



Source: Developed by the researcher based on Human Capital Theory (Becker), Household Bargaining Models (Manser & Brown; Chiappori), Labour Market Segmentation Theory, Social Role Theory, and Kabeer's (1999, 2012) Empowerment and Agency Framework.

The framework further incorporates an empowerment and agency perspective, particularly drawing on Kabeer's understanding of empowerment as a process involving access to resources, the ability to exercise agency, and the achievement of valued outcomes. Within this framework, female work participation is viewed not only as an outcome influenced by various factors, but also as a pathway to greater socio-economic empowerment. Participation in paid work is expected to improve women's access to resources, strengthen their bargaining power within the household, and enhance their role in decision-making at both household and community levels. In this way, female work participation and empowerment are seen as mutually reinforcing processes that can contribute to reducing gender disparities.

The framework also highlights the role of government support programmes and institutional mechanisms as important enabling and moderating factors. Awareness, accessibility, and utilisation of welfare schemes, livelihood support programmes, and social security measures can influence women's capacity to participate in work and to overcome household and socio-cultural constraints. Effective institutional support can reduce economic vulnerability, improve access to productive resources, and expand employment opportunities for women.

3.4. Major Terms Used

Gender Disparity: Gender disparity refers to the unequal treatment or perceptions of individuals based on their gender. It refers to the differences in access to resources, opportunities and rights between men and women, often leading to the marginalisation of women in various sectors, including labour markets (Kabeer, 1999). In the context of this study, gender disparity focuses on the unequal participation of men and women in the fishing industry of Kerala, mainly regarding employment opportunities, wage differences, and roles assigned to each gender in fishing activities.

Fishermen Community: The fishermen community refers to a group of individuals whose primary occupation is fishing and related activities. In Kerala, this community is concentrated in the coastal regions, where fishing is the chief means of livelihood. This term mainly focuses on marine fishing.

Labour Participation: Labour participation refers to the active engagement of individuals in economic activities (Benería, 2003). In this study, labour participation pertains to the involvement of men and women in work activities within the fishing industry or other sectors of Kerala. Women in the fishing community often face barriers to equal labour participation due to gendered norms and socio-economic constraints.

Empowerment: Empowerment refers to the process by which individuals or groups gain control over their lives, access resources and achieve autonomy in decision-making (Sen, 1999; Kabeer, 1999). In this study, empowerment is understood in terms of the abilities of women to make independent choices regarding their participation in the fishing industry, economic activities and household decisions. Women's empowerment in labour participation is influenced by access to education, economic resources, and social support systems.

Gender Roles: Gender roles refer to the societal expectations and behaviours considered appropriate for individuals based on their gender. These roles are shaped by cultural, social and economic factors, and they often determine the type of work that individuals can pursue (Butler, 1990). The fishing community of Kerala historically assigned men to the physically demanding tasks of fishing and women to supportive roles such as processing and selling fish.

Work Participation Rate (WPR): The work participation rate (WPR) is a measure used to quantify the proportion of the working-age population actively engaged in economic activities. It is calculated by dividing the number of individuals participating in the labour force (those employed and seeking employment) by the total working-age population and multiplying by 100 to express the result as a percentage. The formula for calculating WPR is:

$$\text{WPR} = (\text{Total number of workers} / \text{Total working-age population}) \times 100$$

CHAPTER IV

FEMALE WORK PARTICIPATION AND GENDER DISPARITY: A GENERAL OVERVIEW

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- 4.1 Introduction
 - 4.2 International scenario of female labour force participation
 - 4.3 Female Labour Force Participation in India
 - 4.4. Female Labour Force Participation and Gender Disparity in Kerala
 - 4.5 Conclusion
-

CHAPTER IV

FEMALE WORK PARTICIPATION AND GENDER DISPARITY: A GENERAL OVERVIEW

4.1. Introduction

The chapter examines the general overview of female work participation and the problem of gender disparity in work participation. A comparative analysis between India as a whole and Kerala is carried out using the work participation and unemployment rates of both males and females. The global gender gap in work participation is also considered to highlight disparities at the international level.

Gender disparity in work participation is a global issue. This issue is very high among the fishermen community, which is influenced by social, cultural and economic factors. This chapter provides a comprehensive overview of gender disparity in work participation, specifically within the fishermen's community, and places this phenomenon within the broader context of economic analysis.

The existing literature highlights significant barriers to the participation of women in the workforce, which include limited access to education and training, societal norms and unequal distribution of household responsibilities (Kabeer, 2016; World Bank, 2020). These barriers are compounded by the nature of the work, which is traditionally perceived as male-dominated due to its physical demands and associated risks (Harper et al., 2013). Women in these communities often find themselves relegated to supportive roles or informal sectors that lack recognition and adequate compensation (Weeratunge et al., 2010).

The past four decades show that there is a rapid increase in female labour force participation all over the world, both in developed and developing countries. Several factors have been responsible for this. On the demand side, a general rise in the demand for labour consequent upon the expansion of output and a rise in the education of women are two important factors. With the increasing share of services in GNP,

demand for labour in typical female occupations like clerical and service jobs has been growing very fast. An increase in women's education, leading them to acquire greater skills, has also led to an increase in female labour force participation. On the supply side, rising wages for women, changes in family composition, and lower male earnings have also contributed to pushing up female labour force participation. Another important factor, especially in Western countries, was the increase in the proportion of single women who had no alternative but to join the labour force for sustenance. Another factor behind this is increasing governmental support by providing free education, skills, etc.

Despite considerable efforts at promoting gender equality and gender mainstreaming within the organisational structures of policymakers and change agents, there are still considerable gaps in the knowledge of gender relations and how these are affected by the change (Bennette, 2004)). Gender inequality is an important issue to be addressed in the contemporary world. The gender gap and its resultant economic backwardness is a developmental problem. It hinders economic development by perpetuating inequality. Decreasing inequality is essential for self-sustaining growth and development. Extreme inequality leads to economic inefficiency. For a developing society, a collaboration of females along with males in the social process is essential. Ownership of assets by women is essential for poverty reduction. Though there are several enactments and policies, their impacts are minimal.

This chapter aims to elucidate the extent and nature of gender disparity in work participation among the fishermen community by analyzing demographic data, economic contributions and the socio-cultural dynamics at play. Fisherfolk form an important community in Kerala but remain neglected and marginalized despite the higher socio-economic progress the state has made as a whole. It is important to understand that the fishing community is a distinctive group of people geographically located in the coastal areas and have their way of life and distinctive culture and to understand the special relationship they share with the sea and the environment. Understanding the specific challenges faced by women in fishing communities is

crucial for developing targeted interventions that can enhance their economic participation and overall well-being. For the analysis in this chapter, secondary data from PLFS 2017–18, PLFS 2019–20, PLFS 2020–21, MOSPI, NSSO, and ILO were used.

4.2. International Scenario of Female Labour Force Participation

Though the participation of women in economic activities has grown significantly in the past few decades, women have not won occupational equality. In many of the developed countries, women have taken up most of the newly created jobs, a process which is often referred to as the feminisation of the labour force. Meulders, Plasman & Plasman (1997) report that a significant proportion of women in the member states of the European Union participate in typical labour relations such as part-time employment, temporary employment and unusual scheduled employment involving inferior and hazardous labour conditions. Thus, the age-old problems of segregation and low pay scales still predominate in international female employment scenarios. European labour markets are in general characterised by high female labour force participation and a high degree of segregation by gender. Denmark and the United Kingdom with the highest female labour force participation rates display as great a degree of segregation by gender as countries like Greece and Spain with lower female participation rates (Plantega, 1997).

The frequently used indicators of the status of women in a society are the sex differential in life expectancy at birth and child mortality rates, school enrollment ratio, school retention rates, maternal mortality rates, the age at marriage and the worker population ratio of women. Indian women face many handicaps and discrimination regarding sustenance and access to medical care in the event of an illness, choice of spouse, rights of ownership, inheritance and even freedom of movement and decision-making for routine matters. The growing awareness is a better solution for this problem than the state intervention by introducing new social norms and laws.

Enhancing the participation of women in economic activities is very essential for achieving poverty reduction and economic development and it is also crucial for

overall social development. Reducing the gender gap in participation in economic activities contributes towards many other benefits of economic prosperity such as improvement in child survival, overall family health, reduction in fertility, etc. The economic activities are broadly classified as organised and unorganised, each of which may be in the formal or informal sector. Participation of women in economic activities in formal sectors of industries, services and agricultural sectors is measurable. At the same time, the participation of women in informal sectors such as housework, training and education of children and household services are still not measured as they deserve. Women constitute roughly half of the economically active population, but their contribution to economic activity is far below the potential. Unlocking this large potential could work as a catalyst in achieving goals as set under Sustainable Development Goals.

The labour force participation rate of females globally is unequal across the world. It was 24.9 per cent below that of men. Employment growth hardly matches the growth of the working-age population. Equal opportunity and equal treatment in the labour market are the core agenda of ILO for decent work. Gender equality is the cross-cutting objective of ILO. It is the key goal of the 2030 Sustainable Development Goals. Global labour force participation among women was 50% while that was 80% among males. (ILO Gender Data Portal of World Bank IBRA-IDA, 2022). The rate of participation among men is more than three times higher in South Asia, the Middle East, and North Africa. The gender Gap in Labour force participation in the world in 2017 was 26.5(ILO's Trends Econometrics Model Nov 2017).

Table 4.1

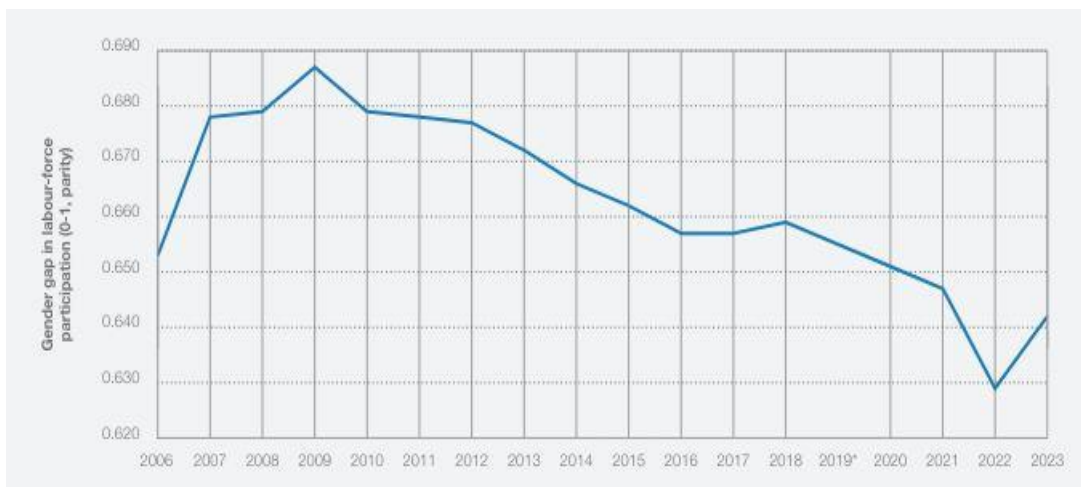
**Global Female Labour Force Participation Rate
(% of Female Population Ages 15+)**

Year	Female Labour Force Participation Rate (%)	Annual Change (%)
1991	50.63	
1992	50.58	-0.10
1993	50.38	-0.40
1994	50.47	0.19
1995	50.45	-0.04
1996	50.42	-0.06
1997	50.47	0.09
1998	50.50	0.06
1999	50.65	0.30
2000	50.64	-0.02
2001	50.39	-0.49
2002	50.16	-0.46
2003	50.01	-0.29
2004	49.87	-0.29
2005	49.81	-0.12
2006	49.65	-0.32
2007	49.59	-0.12
2008	49.34	-0.50
2009	49.17	-0.35
2010	48.84	-0.68
2011	48.64	-0.39
2012	48.46	-0.38
2013	48.31	-0.32
2014	48.20	-0.21
2015	48.19	-0.03
2016	48.14	-0.09
2017	48.07	-0.15
2018	47.97	-0.22
2019	47.96	-0.02
2020	46.75	-2.52
2021	47.51	1.63
2022	47.84	0.71
2023	48.67	1.73
Average	49.29	-0.12
SD	1.14	
CV	2.31	

Source: International Labour Organization. 'ILO Modelled Estimates and Projections database (ILOEST)' ILOSTAT. Accessed February 06, 2024.

Table 4.1 presents the Global Female Labour Force Participation Rate (FLFPR) for women aged 15 and above from 1991 to 2023. The data reveals a general declining trend in FLFPR, starting at 50.63% in 1991 and dropping to 48.67% by 2023. The average participation rate over this period is 49.29%, with a standard deviation of 1.14, indicating moderate variability around the mean. The coefficient of variation (CV) is 2.31%, reflecting comparatively low relative variability in the participation rates over the years. Annual changes in FLFPR are marked by both increases and decreases. The most significant decline occurred in 2020 with a 2.52% drop, likely due to the impact of the global COVID-19 pandemic on employment, mostly affecting women. The most notable increase is seen in 2023 with a 1.73% rise, suggesting a potential recovery or improvement in female labour force participation in the post-pandemic period. The overall declining trend suggests a gradual reduction in women's workforce participation due to factors such as economic downturns, social and cultural barriers, and insufficient policy support. These findings emphasise the necessity of statutory policy interventions to enhance female labour force participation, such as improving access to education and training, promoting work-life balance, and addressing cultural norms that hinder the economic involvement of women.

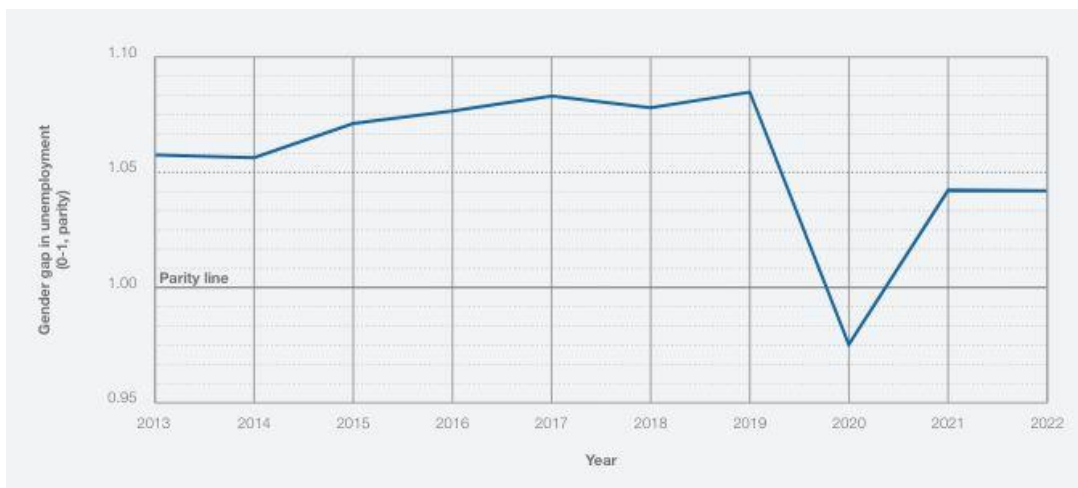
Figure 4.1 Global Gender Gap in Labour-Force Participation (2006-2023)



Source: Global Gender Gap Report 2023, World Economic Forum

Figure 4.1 illustrating the Global Gender Gap in Labour-Force Participation (2006-2023) shows a clear trend of widening disparity between men and women in the workforce. The y-axis, representing the gender gap in labour force participation, ranges from 0 to 0.69, with 0 indicating parity and higher values signifying a larger gap where women participate less than men. From 2006 to 2023, the x-axis displays the years over which this trend is observed. Between 2019 and 2020, the global labour-force participation rate for women dropped by 3.4%, compared to a 2.4% decline for men. Since then, women have been re-entering the workforce at a slightly higher rate than men, leading to a modest improvement in gender parity. The parity in labour force participation increased from 63% to 64% between 2022 and 2023. Despite this progress, the recovery is incomplete and the current parity still being the second-lowest since the index's inception in 2006 and well below its peak of 69% in 2009. Addressing these underlying issues would require a multifaceted approach, including policy reforms, support for caregiving responsibilities and efforts to ensure equal representation of women in various sectors of the economy.

Figure 4.2 Global Gender Gap in Unemployment (2013-2022)

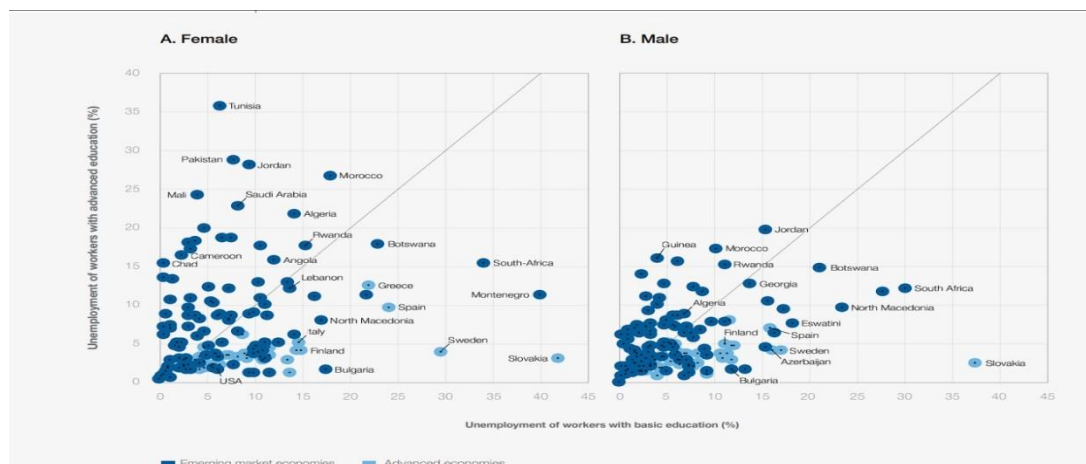


Source: Global Gender Gap Report 2023, World Economic Forum

Labour-force participation rates can obscure trends in unemployment as they include both those who are employed and those who are unemployed but actively seeking work. After the surge in unemployment caused by pandemic lockdowns, the rates for both men and women have nearly returned to pre-pandemic levels (Figure

4.2). Traditionally, women have faced higher unemployment rates than men, except for a brief period in 2020 when the pandemic led to a significant rise in unemployment for both genders, slightly more for men. Since then, women are once again more likely to be unemployed than men, which worsens the gender gap in labour force participation. This indicates that lower female participation in the labour market means a smaller proportion are employed. Data from the International Labour Organization (ILO) show that the global unemployment rate is about 4.5% for women and 4.3% for men. The Middle East and North African regions exhibit the highest disparity in female and male unemployment, with the current parity ratio standing at 2.69. Following closely is Latin America and the Caribbean region, where the parity ratio is 1.51, followed by Eurasia and Central Asia at 1.21. East Asia and the Pacific region are the only regions below parity, with a ratio of 1.0. The result highlights persistent gender inequalities in global unemployment, with women continuing to face higher unemployment even after the pandemic. This suggests that economic recovery efforts must prioritise gender-sensitive policies to ensure equal employment opportunities, especially in regions with the widest gaps like the Middle East and Latin America.

Figure 4.3 Unemployment by Education Level, Gender and Income Level (2022)

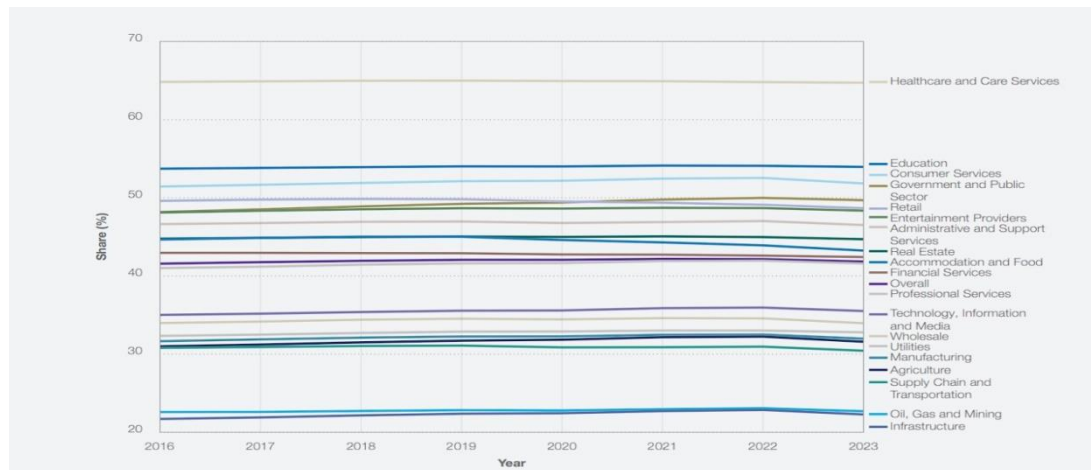


Source: Global Gender Gap Report 2023, World Economic Forum

Figure 4.3 provides insight into unemployment trends, revealing that women often experience amplified versions of the patterns observed among men. The likelihood of unemployment across individuals with varying levels of educational

attainment tends to fluctuate depending on the income level of a country. In developed economies, individuals with basic education are at a higher risk of unemployment, a trend that is particularly pronounced for women (Figure 4.3 Part-A). In low and middle-income countries, individuals with advanced education face higher vulnerability to unemployment, with women disproportionately affected (Figure 4.3.Part-B).

Figure 4.4 Global Representation of Women in the Workforce, by Industry (2016-2023)



Source: Global Gender Gap Report 2023, World Economic Forum

Data (figure 4.4) from the Global Gender Gap Report, World Economic Forum (2023) highlights ongoing disparities in women’s representation across industries. In the same year, the global female work participation rate was 39.9%. Trends over time indicate fluctuations in the proportion of women hired into the total workforce. An upward trend was observed between 2016 and 2019, peaking at 42.1% before stabilising in 2020. The proportion of jobs held by women increased slightly in 2021 (+0.12 percentage points), followed by minor declines in 2022 (-0.03 percentage points) and a more pronounced drop in 2023 (-0.31 percentage points). An examination across industries reveals distinct patterns of gender representation. Healthcare and care services remain predominantly female-dominated (64.7%), followed by education (54.0%) and consumer services (51.8%), where women also outnumber men, albeit to a lesser extent. The Government and Public sector demonstrate a fairly balanced distribution of men and women, with women

accounting for nearly half (49.7%) of the workforce in 2023 (a slight decrease from 50% in 2022). Industries where women are underrepresented but still constitute more than 40% of the workforce include retail (48.7%), entertainment providers (48.4%), administrative and support services (46.5%), real estate (44.7%), accommodation and food (43.3%) and financial services (42.4%). Women are notably underrepresented in sectors like oil, gas, and mining (22.7%) and infrastructure (22.3%), where they comprise less than one-quarter of the workforce. The observed decline in women's workforce representation between 2022 and 2023 is evident across industries, particularly notable in consumer services (-0.71 percentage points), accommodation and food (-0.67 percentage points), agriculture (-0.65 percentage points) and wholesale (-0.62 percentage points). The share of women in accommodation and food has been on a downward trajectory since 2020, along with their representation in retail, healthcare and care services and financial services (with the latter experiencing a decline since 2018). Industries witnessing a notable upward trend in women's representation since 2016, despite a slight dip in early 2023, include government and Public Sector (+1.8 percentage points compared to 2016), agriculture (+1.24 percentage points), infrastructure (+1.16 percentage points), consumer services (+1.1 percentage points), professional services (+0.95 percentage points) and technology, information and Media (+0.94 percentage points).

The international scenario of female labour force participation reflects a complex interplay of economic, social and cultural factors shaping women's engagement in the workforce. Despite progress in many regions, significant gender disparities persist, and women often face higher rates of unemployment, limited access to employment opportunities and underrepresentation in certain industries. COVID-19 had a favourable impact on some industries and worsened others. By giving more importance to gender-inclusive policies and initiatives, societies can tie together the full potential of their female workforce, driving sustainable economic development and advancing social progress on a global scale.

4.3. Female Labour Force Participation in India

Recently, female labour force participation (FLFP) in India has been a topic of considerable research and policy discussion due to its significance for gender equality and economic development. Though there are advancements in various sectors, FLFP rates in India have remained relatively low compared to global standards (Chatterjee, 2019). Female rural labour force participation during 2021-22 in India, as per usual status, 15 to 59 years of age, was 39.3% but urban female labour force participation was 26.5%. Several factors contribute to this low participation, including cultural norms, limited access to education and employment opportunities and inadequate support for work-life balance (Klasen & Pieters, 2015).

In recent years, there has been growing recognition of the importance of increasing FLFP for the economic growth and social development of India. Government initiatives such as the Beti Bachao Beti Padhao (Save the Daughter, Educate the Daughter) campaign and skill development programs aim to empower women and enhance their participation in the labour force (Government of India, 2015). However, challenges such as gender-based discrimination, lack of affordable childcare facilities, and the persistence of patriarchal attitudes continue to hinder women's full integration into the workforce (Desai & Joshi, 2019).

In order to address the challenges of gender inequality in work participation requires a multi-faceted approach, encompassing policy reforms, social interventions and cultural change. Efforts to improve access to education, promote gender-sensitive employment policies, and enhance infrastructure for childcare can play a crucial role in increasing FLFP rates in India (Klasen & Pieters, 2015). These initiatives are aimed at challenging gender norms and fostering greater gender equality in households and workplaces, which are essential for creating an environment conducive to the participation of women in the labour force (Desai & Joshi, 2019).

Table 4.2
Female Labour Force Participation Rate: India vs World (Age 15+)

Year	India		World		Difference = World- India
	Female Labour Force Participation Rate (%)	Annual Change (%)	Female Labour Force Participation Rate (%)	Annual Change (%)	
1991	27.78	-----	50.63	-----	22.86
1992	27.85	0.27	50.58	-0.10	22.73
1993	27.96	0.39	50.38	-0.40	22.42
1994	28.11	0.53	50.47	0.19	22.36
1995	28.49	1.37	50.45	-0.04	21.96
1996	28.89	1.37	50.42	-0.06	21.54
1997	29.28	1.38	50.47	0.09	21.19
1998	29.69	1.38	50.50	0.06	20.81
1999	30.10	1.38	50.65	0.30	20.55
2000	30.52	1.39	50.64	-0.02	20.12
2001	30.42	-0.30	50.39	-0.49	19.97
2002	30.34	-0.28	50.16	-0.46	19.82
2003	30.26	-0.25	50.01	-0.29	19.75
2004	30.20	-0.22	49.87	-0.29	19.67
2005	30.14	-0.20	49.81	-0.12	19.67
2006	29.86	-0.91	49.65	-0.32	19.79
2007	29.59	-0.92	49.59	-0.12	20.00
2008	29.32	-0.92	49.34	-0.50	20.03
2009	29.05	-0.92	49.17	-0.35	20.13
2010	28.78	-0.93	48.84	-0.68	20.06
2011	27.92	-2.97	48.64	-0.39	20.73
2012	27.08	-3.02	48.46	-0.38	21.38
2013	27.06	-0.05	48.31	-0.32	21.25
2014	27.03	-0.11	48.20	-0.21	21.17
2015	26.97	-0.23	48.19	-0.03	21.22
2016	26.89	-0.30	48.14	-0.09	21.25
2017	26.76	-0.48	48.07	-0.15	21.31
2018	26.61	-0.57	47.97	-0.22	21.36
2019	26.46	-0.56	47.96	-0.02	21.50
2020	25.95	-1.95	46.75	-2.52	20.80
2021	26.73	3.03	47.51	1.63	20.78
2022	27.99	4.69	47.84	0.71	19.86
2023	32.68	16.76	48.67	1.73	16.00
Average	28.57	0.56	49.29	-0.12	20.73
SD	1.58	3.32	1.14	0.68	-0.44
CV	5.52	594.60	2.31	-563.44	-3.20

Source: Estimated from the International Labour Organisation. 'ILO Modelled Estimates and Projections database (ILOEST)' ILOSTAT. Accessed February 06, 2024.

Table 4.2 presents the Female Labour Force Participation Rate (FLFPR) for both India and the world, providing a comparative analysis of participation trends over the years. The data was sourced from the International Labour Organisation (ILO). There is significant disparity in FLFPR between India and the world. In 1991, India's FLFPR stood at 27.78%, considerably lower than the global rate of 50.63%. This trend continues over subsequent years, with India consistently lagging behind the world average. However, there was a notable increase observed, particularly from 2021 to 2023. While the global FLFPR shows minor fluctuations, India's FLFPR exhibits more significant variations, both positive and negative. The difference between the world and India's FLFPR highlights the gap in female labour force participation rates between India and the rest of the world.

Table 4.3

Workforce Participation Trends in India by Gender (2000-2020)

Year	Rural		Urban	
	Male	Female	Male	Female
2000/01	54.4	28.7	53.1	14.0
2002/03	54.6	28.1	53.4	14.0
2005/06	54.9	31.0	54.0	14.3
2007/08	54.8	28.9	55.4	13.8
2011/12	54.3	24.8	54.6	14.7
2019/20	56.3	24.7	57.8	18.5

Source: Census of India, 2011, PLFS 2019-20.

Table 4.3 presents the trend in workforce participation rates between genders in India across rural and urban areas from 2000-01 to 2019-20. The workforce participation rate for males has shown a slight increase in rural areas over the years, rising from 54.4% in 2000-01 to 56.3% in 2019-20. Female participation rates have remained relatively stagnant, with only a marginal decrease from 28.7% in 2000-01 to 24.7% in 2019-20. In urban areas, both male and female workforce participation rates have demonstrated an upward trend. Male participation increased from 53.1% in 2000-01 to 57.8% in 2019-20, while female participation rose from 14.0% to 18.5% during the same period. The given table highlights the gender disparity in workforce

participation rates in both rural and urban India, with males consistently displaying higher participation rates compared to females. While there has been some improvement in female participation rates, particularly in urban areas, addressing the underlying factors contributing to gender disparities remains a crucial challenge for promoting inclusive economic growth and gender equality in India.

Table 4.4
LFPR in Usual Status (PS+SS), Age 15 & Above (%)

Years	Rural			Urban			Rural + Urban		
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
2017-18	76.4	24.6	50.7	74.5	20.1	47.6	75.8	23.3	49.8
2021-22	78.2	36.6	57.5	74.7	23.8	49.7	77.2	32.8	55.2
Change in 2021-22 over 2017-18 (%)	1.8	12.0	6.8	0.2	3.4	2.1	1.4	9.5	5.4

Source: Annual PLFS Report, MoSPI (2023)

Table 4.4 illustrates the Labour Force Participation Rate (LFPR) in usual status (PS+SS) for individuals aged 15 years and above, categorised by rural, urban and combined rural plus urban areas. Both male and female LFPRs have increased in rural areas from 2017-18 to 2021-22. For males, the LFPR rose from 76.4% to 78.2%, while for females, it remarkably increased from 24.6% to 36.6%. In urban areas, a similar trend is observed, albeit with a smaller change. Male LFPR increased slightly from 74.5% to 74.7%, while female LFPR saw a more significant increase from 20.1% to 23.8%. When considering both rural and urban areas together, the overall LFPR for males increased from 75.8% to 77.2%, and for females, it increased from 23.3% to 32.8%. The change in 2021-22 over 2017-18 indicates the percentage point change in LFPR from 2017-18 to 2021-22. There is a significant increase in female LFPR in both rural and urban areas, with a 12.0% point increase in rural areas and a 3.4% point increase in urban areas. The combined LFPR also shows a considerable increase of

9.5% points for females over the specified period. These findings suggest an overall positive trend in LFPR, mostly for females, indicating potential improvements in economic participation and opportunities for women in both rural and urban settings.

Table 4.5
Gender Wise Employment
Trends by Usual Status (PS + SS), All Ages (%)

		Rural			Urban			Rural + Urban		
		2018-19	2019-20	2020-21	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
Male	LFPR	55.1	56.3	57.1	56.7	57.8	58.4	55.6	56.8	57.5
	WPR	52.1	53.8	54.9	52.7	54.1	54.9	52.3	53.9	54.9
	UR	5.6	4.5	3.9	7.1	6.4	6.1	6.0	5.1	4.5
Female	LFPR	19.7	24.7	27.7	16.1	18.5	18.6	18.6	22.8	25.1
	WPR	19.0	24.0	27.1	14.5	16.8	17	17.6	21.8	24.2
	UR	3.5	2.6	2.1	9.9	8.9	8.6	5.2	4.2	3.5
Overall	LFPR	37.7	40.8	42.7	36.9	38.6	38.9	37.5	40.1	41.6
	WPR	35.8	39.2	41.3	34.1	35.9	36.3	35.3	38.2	39.8
	UR	5.0	4.0	3.3	7.7	7.0	6.7	5.8	4.8	4.2

Source: Annual PLFS 2017-18 to 2020-21 (MoSPI) LFPR, WPR and UR

Table 4.5 presents gender-wise employment trends as per usual status (principal status + subsidiary status) for individuals of all ages in rural, urban and combined rural plus urban areas for the years 2018-19, 2019-20 and 2020-21. For males, both the Labour Force Participation Rate and Worker Population Ratio have shown an upward trend across rural, urban and combined rural plus urban areas over the specified years. The Unemployment Rate has generally decreased, similarly, for females, there has been an increase in LFPR and WPR, accompanied by a decrease in UR across rural, urban and combined rural plus urban areas over the same period.

Table 4.6 provides a breakdown of total females aged 15 years and above in India, categorized by their participation in the labour force and their activities outside the labour force in rural and urban areas for the years 2017-18 and 2021-22. For females in the labour force, there has been an increase in self-employment and regular

wage/salaried employment, particularly in rural areas, from 2017-18 to 2021-22. Casual labour participation has also increased slightly in both rural and urban areas. The unemployment rate has slightly decreased during this period. Outside the labour force, there has been a notable decrease in the percentage of females attending only domestic duties, especially in rural areas. The percentage of females engaged in domestic duties along with free collection of goods, sewing, tailoring, etc... has remained relatively stable. Participation in educational institutions has seen a slight increase in both rural and urban areas. There has been a slight increase in the percentage of females who are rentiers, pensioners, remittance recipients, etc... The table highlights shifts in female labour force participation and activities, indicating changes in socio-economic dynamics and employment patterns among females in India over the specified period.

Table 4.6
Breakup for Total Females in India, Age 15 & Above

	Rural		Urban	
	2017-18	2021-22	2017-18	2021-22
Female in Labour Force (%)	24.6	36.6	20.4	23.8
Self-Employed	13.6	24.2	6.3	8.6
Regular wage/ Salaried	2.5	2.9	9.5	11.0
Casual Labour	7.5	8.7	2.4	2.3
Unemployed	0.9	0.8	2.2	1.9
Female Outside the Labour Force (%)	75.4	63.4	79.6	76.2
Domestic duties only	40.8	28.3	54.9	50.3
Domestic duties, engaged in free collection of goods, sewing, tailoring, weaving, etc... for household use	17.0	17.4	4.5	6.2
Attended educational institutions	10.3	10.9	12.9	12.2
Rentiers, Pensioners, Remittance Recipients, etc...	4.4	4.6	4.8	5.5
Disabled	1.1	1.0	-	0.9
Others	1.8	1.3	1.5	1.0

Source: PLFS Report, MoSPI (2023)

Table 4.7

Industry-wise Employment in India (Usual Status)

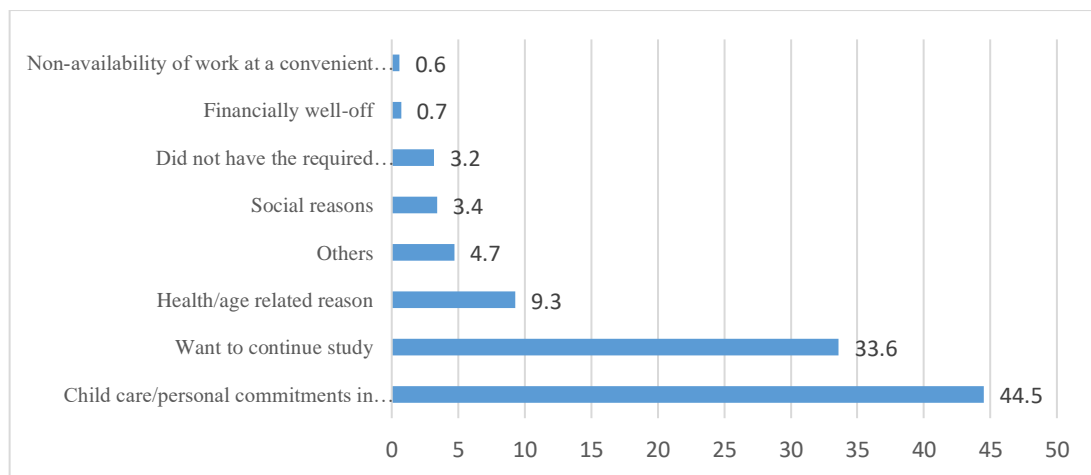
Year/Sector	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2018-19									
Agriculture	12.97	6.01	18.98	0.62	0.26	0.88	13.58	6.27	19.86
Mining & Quarrying	0.10	0.02	0.11	0.08	0.01	0.08	0.17	0.02	0.20
Manufacturing	1.78	0.76	2.54	2.77	0.81	3.58	4.55	1.57	6.12
Electricity, Water, etc...	0.10	0.02	0.11	0.15	0.02	0.17	0.25	0.03	0.28
Construction	3.75	0.51	4.26	1.47	0.14	1.60	5.22	0.64	5.86
Trade, Hotel & Restaurant	2.39	0.36	2.75	3.19	0.46	3.64	5.57	0.82	6.39
Transport, Storage & Communication	1.32	0.02	1.33	1.54	0.12	1.66	2.86	0.14	2.99
Other Services	1.95	0.77	2.72	2.82	1.51	4.33	4.77	2.28	7.05
Total							36.97	11.78	48.76
2019-2020									
Agriculture	14.10	8.18	22.28	0.67	0.32	0.99	14.77	8.51	23.27
Mining & Quarrying	0.08	0.00	0.08	0.07	0.00	0.07	0.14	0.01	0.15
Manufacturing	1.86	0.79	2.65	2.70	0.88	3.59	4.56	1.67	6.24
Electricity, Water, etc...	0.13	0.01	0.14	0.19	0.02	0.21	0.31	0.03	0.35
Construction	3.82	0.61	4.42	1.60	0.19	1.79	5.42	0.80	6.22
Trade, Hotel & Restaurant	2.34	0.40	2.74	3.85	0.88	4.73	6.19	1.28	7.47
Transport, Storage & Communication	1.37	0.02	1.40	1.61	0.14	1.75	2.99	0.16	3.15
Other Services	1.78	0.79	2.57	2.64	1.50	4.13	4.42	2.29	6.71
Total							38.80	14.75	53.55

Source: Economic Survey 2021-22

Table 4.7 provides a detailed breakdown of industry-wise employment in usual status in India for the years 2018-19 and 2019-2020. The data indicates that in both rural and urban areas, males generally constitute a higher percentage of the workforce compared to females across different sectors. In the agriculture sector, the proportion of male workers is notably higher than females in both rural and urban regions and a

similar trend is observed in sectors like construction, trade, hotel & restaurant and other services. The table reveals some trends over time. In the agriculture sector, there is a slight increase in the percentage of female workers from 2018-19 to 2019-2020 in both rural and urban areas. There is a marginal increase in female representation in other sectors such as manufacturing and construction over the same period. These findings suggest that while males continue to dominate the workforce across various industries in India, subtle shifts are occurring in the composition of the labour force, particularly with a slight increase in female participation in certain sectors.

Figure 4.5 Reasons for Non-participation of Females in the Labour Force (%).



Source: Annual PLFS Report, MoSPI, 2021-22

Figure 4.5 illustrates the primary reasons reported by females for not being in the labour force. The data reveals that the most commonly cited reason is child care and personal commitments related to homemaking, accounting for 44.5% of responses. Following closely is the desire to continue studies, which constitutes 33.6% of reported reasons. Health or age-related concerns represent a smaller but still notable portion, at 9.3%. A further breakdown includes miscellaneous reasons, covering 4.7%, while social reasons account for 3.4%. A smaller proportion cite lack of necessary training, qualification, or age for work (3.2%), while a minority report being financially well-off (0.7%) or facing non-availability of work at a convenient location (0.6%). This underutilisation of female labour results in a substantial loss of productive potential and human capital, especially among young and educated

women. When women remain outside the labour market due to caregiving roles or lack of accessible job opportunities, it contributes to lower female labour force participation, slower economic growth and reduced household income diversification. The persistence of such non-market roles reinforces gender-based occupational segregation and widens the gender earnings gap. It ultimately hinders the achievement of inclusive and sustainable development.

Table 4.8
Gender Wage Disparity in India

Period	Average Gap in Monthly Wage/Salary (in Rs) in CWS		Daily Average Earnings Gap (in Rs) for Casual Labour in Non-Public Work	
	Rural	Urban	Rural	Urban
July- Sept, 2021	3870	4477	120	133
Oct-Dec, 2021	6202	4640	126	144
Jan-Mar, 2022	6254	4746	134	148
Apr-Jun, 2022	6288	4868	128	150

Source: PLFS, MoSPI (2021-22)

Table 4.8 presents data on gender wage disparity in India, focusing on two distinct categories of workers: regular wage/salaried employees and casual labour engaged in work other than public works. The disparities are measured in terms of the average gap in monthly wage/salary earnings for regular wage/salaried employees and the average gap in earnings per day for casual labourers. The data is further divided into rural and urban regions for each period. For regular wage/salaried employees, the average gap in monthly wage/salary earnings between genders is provided. This wage gap ranges from Rs 3870 to Rs 6288 in rural areas across different periods, while in urban areas, it ranges from Rs 4477 to Rs 4868. These figures indicate a consistent disparity in monthly earnings between male and female employees, with urban areas generally exhibiting slightly higher wage gaps compared to rural areas. In rural regions, this gap ranges from Rs 120 to Rs 134, while in urban areas, it ranges from Rs 133 to Rs 150. These figures illustrate a persistent gap in daily earnings between male and female casual labourers, with urban areas showing slightly wider disparities than rural areas. The data underscores the existence of gender wage disparities in India

across different sectors and regions. When women earn less than men for the same job, it may adversely affect household income and economic security. It will negatively affect the whole economy.

From the analysis of the above data, it is clear that in the midst of social progress and economic development, there is the existence of occupational segregation, discriminatory practices, and structural inequalities in the labour market. For the inclusive and sustainable development of the economy, India has to provide a favourable environment for utilising women's full potential and empowerment.

4.4. Female Labour Force Participation and Gender Disparity in Kerala

Female labour force participation (FLFP) in Kerala presents a paradoxical scenario. Despite the high literacy rates and progressive social indicators of the state, it witnesses relatively low female workforce participation compared to the national average. In the Periodic Labour Force Survey (PLFS) 2019-2020, the FLFP rate in Kerala was approximately 21.9%, which is lower than the national average of 23.3% (NSO, 2020). This low participation rate is attributed to several key factors. Traditional gender roles and societal expectations often confine women to domestic responsibilities, even though they attain high educational levels (Mukhopadhyay, 2016). The economic opportunities available in Kerala heavily rely on sectors like construction and manual labour, which are typically male-dominated (Ramachandran, 2020). Gender disparity in employment is also displayed through wage gaps, job security issues, and discriminatory hiring practices, with women frequently overrepresented in the underpaid informal sector (Nair, 2021). Although Kerala has implemented numerous gender-friendly policies, their impact and effectiveness in enhancing female employment have been uneven (John, 2019).

Figure 4.6 Workforce Participation Rate in Kerala

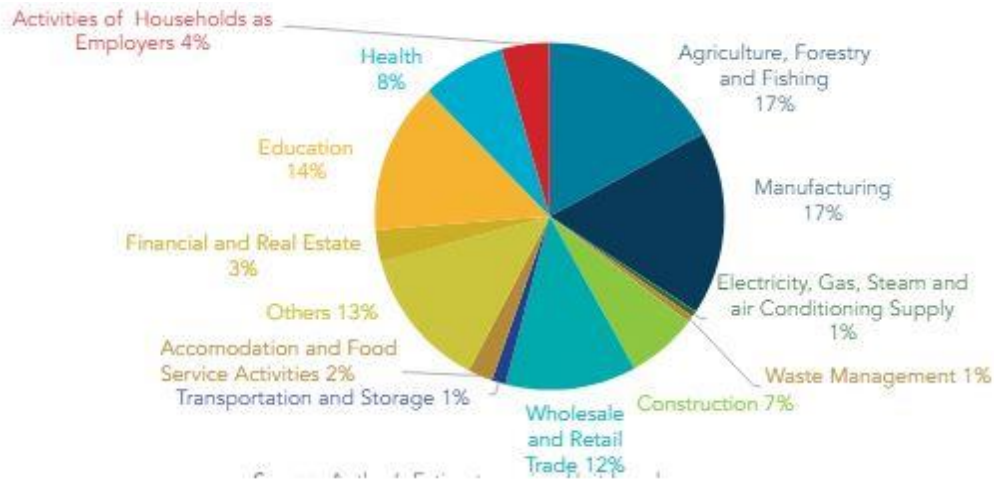


Source: Periodic Labour Force Survey (PLFS) 2017-18, PLFS 2018-19, PLFS 2019-20, and PLFS 2020-21, National Sample Survey Organisation (NSSO), Ministry of Statistics and Programme Implementation (MoSPI), Government of India (GoI). The WPR figures are calculated for males and females of all age groups.

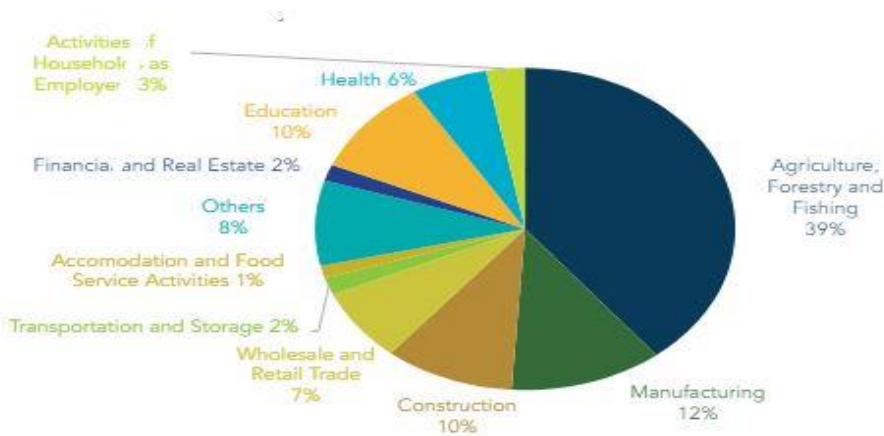
The Workforce Participation Rate in the fiscal year 2020-21 in rural Kerala stood at 25.6 per cent, indicating a slight deviation of 1.5 percentage points below the national average. The scenario contrasts in urban areas, where the WPR surpassed national figures by 3.8 percentage points. There has been a notable divergence in the pace of Female Workforce Participation Rate (FWPR) growth between rural and urban regions. Over the span from 2017-18 to 2020-21, the FWPR surged more rapidly in rural areas, ascending from 16.6 per cent to 25.6 per cent. Urban areas witnessed a more modest rise, with FWPR increasing from 16 per cent to 20.8 per cent during the same time frame. There has been a marginal reduction of 4.4 percentage points in the male-female gap in workforce participation across both rural and urban regions throughout the reference period (Figure 4.6).

Figure 4.7 Distribution of Female Workers by Industry Divisions in Kerala

(a) Rural



(b) Urban

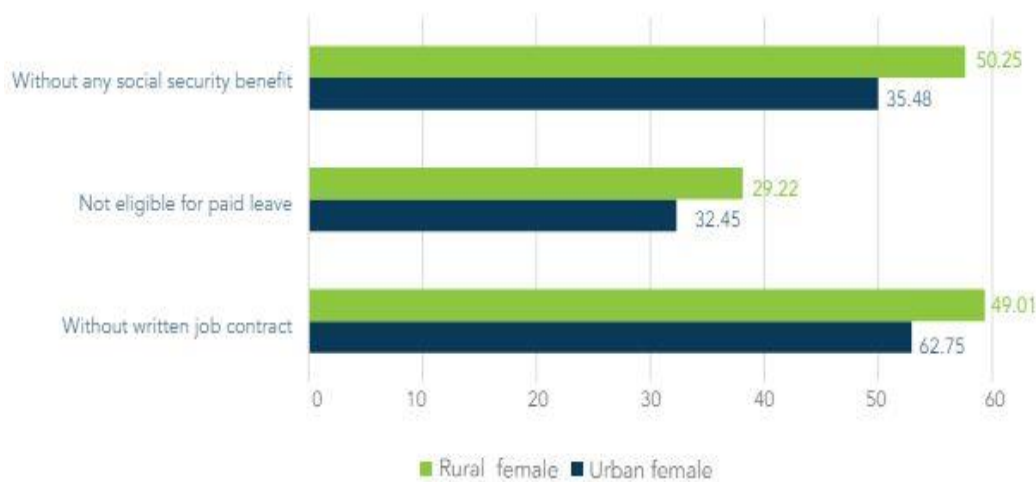


Source: Estimated From PLFS 2020-21

Figure 4.7 shows that in rural Kerala, 39 per cent of women are involved in agriculture, forestry and fishing, which is significantly lower than the national average of 75 per cent. Another 12 per cent work in manufacturing, with the remaining percentage spread across various industries. The low representation of women in agriculture may be attributed to the transition from food crops to cash crops, a domain typically dominated by men. Instead of agriculture, the state predominantly relies on the service sector, which offers better working conditions and contributes significantly

to its revenue. The urban landscape of Kerala presents a different scenario, with an equal proportion of 17 per cent of women engaged in agriculture and manufacturing. While the rest are distributed among wholesale and retail trade and other services. The proportion of women dependent on rentiers, pensioners, and remittance recipients in rural and urban areas stands at 14.4 per cent and 13.3 per cent respectively. The shift away from agriculture towards the service sector in Kerala reflects a structural transformation in the economy. It offers better opportunities and limits traditional employment avenues for rural women. This transition, coupled with gendered barriers, reduces the participation of women in key sectors, potentially widening economic inequality.

Figure 4.8 Work Condition in Regular Employment among Females



Source: Estimated From PLFS 2020-21

Figure 4.8 displays a significant presence of regular-wage women employees in urban regions of Kerala. A closer examination of female working conditions reveals the vulnerable position of the female workforce. The Periodic Labour Force Survey (PLFS) 2020-21 discloses that half of the urban women lack any social security benefits and written job contracts, while approximately 32.2 per cent are ineligible for paid leave. In rural areas, 59.3 per cent of women lack written job contracts, 57.6 per cent lack social security benefits, and 38.1 per cent are not eligible for paid leave. These statistics are lower than the national average. The results highlight a risky employment

scenario for women in both rural and urban Kerala, with a significant lack of social security, written contracts and paid leave. This vulnerability limits income stability, job security and bargaining power of female workers. It ultimately reduces the economic agency and participation of women. It also reflects structural labour market inequalities faced by the state.

Table 4.9

LFPR for Age 15 & above (US), 2017-18 to 2020-21: India vs Kerala

			2017-18	2018-19	2019-20	2020-21
Rural	India	Male	76.4	76.4	77.9	78.1
		Female	24.6	26.4	33.0	36.5
		Overall	50.7	50.5	55.5	57.0
	Kerala	Male	71.1	71.0	73.6	75.7
		Female	25.9	31.3	35.1	35.4
		Overall	46.6	49.7	52.8	53.9
Urban	India	Male	74.5	73.7	74.6	74.6
		Female	20.4	20.4	23.3	23.2
		Overall	47.6	47.5	49.3	49.1
	Kerala	Male	68.9	71.4	69.8	68.5
		Female	27.3	29.7	28.6	30.6
		Overall	46.4	48.8	47.7	48.4
Combined	India	Male	75.8	75.5	76.8	77.0
		Female	23.3	24.5	30.0	32.5
		Overall	49.8	50.2	53.5	54.9
	Kerala	Male	70.1	71.2	71.7	72.2
		Female	26.5	30.6	31.9	33.2
		Overall	46.5	49.3	50.3	51.3

Source: PLFS Annual Reports, MoSPI 2022

Table 4.9 illustrates the Labour Force Participation Rate (LFPR) for individuals aged 15 years and above across urban and rural areas in India and the state of Kerala from 2017-18 to 2020-21. Female LFPR in rural India rose from 24.6% to 36.5%, and in rural Kerala from 25.9% to 35.4%. It indicates increased female labour participation. Similarly, urban female LFPR in Kerala also improved from 27.3% to 30.6%, while the national urban rate remained around 23.2%. Though the overall LFPR in Kerala is lower than the national average (51.3% vs. 54.9% in 2020-21), both

show upward trends. The rising LFPR among women, especially in rural Kerala indicates growing female economic engagement, which can enhance household incomes and regional development. However, persistent gender gaps highlight the need for inclusive labour policies.

Table 4.10

WPR for Age 15 & Above (US), 2017-18 to 2020-21: India vs Kerala

			2017-18	2018-19	2019-20	2020-21
Rural	India	Male	72.0	72.2	74.4	75.1
		Female	23.7	25.5	32.2	35.8
		Overall	48.1	48.9	53.3	55.5
	Kerala	Male	67.0	67.6	68.2	70.8
		Female	20.8	26.4	30.3	30.7
		Overall	41.9	45.5	47.7	49.1
Urban	India	Male	69.3	68.6	69.9	70.0
		Female	18.2	18.4	21.3	21.2
		Overall	43.9	43.9	45.8	45.8
	Kerala	Male	64.4	67.7	64.7	62.5
		Female	19.8	24.1	23.8	25.3
		Overall	40.2	44.1	42.7	42.8
Combined	India	Male	71.2	71.0	73.0	73.5
		Female	22.0	23.3	28.7	31.4
		Overall	46.8	47.3	50.9	52.6
	Kerala	Male	65.8	67.7	66.5	66.8
		Female	20.4	25.3	27.1	28.2
		Overall	41.2	44.9	45.3	46.1

Source: PLFS Annual Reports, MoSPI (2022)

Table 4.10 presents the Labour Force Participation Rate (LFPR) for individuals aged 15 years and above across rural and urban areas in India and Kerala from 2017-18 to 2020-21. Male LFPR rose steadily from 72.0% to 75.1% in rural India, while female LFPR showed a significant increase from 23.7% to 35.8%, narrowing the gender gap. Kerala also witnessed a rise in rural female LFPR from 20.8% to 30.7%. It reflects an encouraging trend in the economic engagement of

women. In urban India, female LFPR remained relatively stagnant, around 21%, compared to Kerala’s modest improvement from 19.8% to 25.3%. Combined data indicates that the female LFPR of India rose from 22.0% to 31.4%, while Kerala’s increased from 20.4% to 28.2%. Despite these improvements, Kerala continues to exhibit lower overall LFPR than the national average, especially among males. The rising LFPR for women, especially in rural areas suggests increasing female participation in productive work, possibly contributing to household income and economic growth. The lower LFPR and high female unemployment rate of Kerala signal structural barriers to job creation and labour market access. It emphasises the need for inclusive employment policies and gender-sensitive skill development initiatives.

Table 4.11

UR for Age 15 & Above (US), Period 2017-18 to 2020-21: India vs Kerala

			2017-18	2018-19	2019-20	2020-21
Rural	India	Male	5.7	5.5	4.5	3.8
		Female	3.8	3.5	2.6	2.1
		Overall	5.3	5.0	3.9	3.3
	Kerala	Male	5.9	4.7	7.3	6.4
		Female	19.6	15.6	13.8	13.4
		Overall	10.0	8.4	9.7	8.9
Urban	India	Male	6.9	7.0	6.4	6.1
		Female	10.8	9.8	8.9	8.6
		Overall	7.7	7.6	6.9	6.7
	Kerala	Male	6.6	5.2	7.4	8.7
		Female	27.4	18.8	16.7	17.4
		Overall	13.2	9.7	10.4	11.6
Combined	India	Male	6.1	6.0	5.0	4.5
		Female	5.6	5.1	4.2	3.5
		Overall	6.0	5.8	4.8	4.2
	Kerala	Male	6.2	4.9	7.4	7.5
		Female	23.2	17.0	15.1	15.1
		Overall	11.4	9.0	10.0	10.1

Source: PLFS Annual Reports, MoSPI (2022)

Table 4.11 highlights Unemployment Rates (UR) for those aged 15 and above in India and Kerala from 2017-18 to 2020-21. In Kerala, female unemployment remains alarmingly high, 13.4% in rural and 17.4% in urban areas in 2020-21, compared to the national averages of 2.1% (rural) and 8.6% (urban). Male UR in Kerala also shows fluctuation, peaking at 8.7% in urban areas. While the UR of India has declined steadily across genders, Kerala's figures, especially for women, indicate persistent structural challenges.

4.5. Conclusion

Both nationally and internationally, female labour force participation is low when compared with that of their male counterparts. In Kerala, though there is a high reputation in HDI index and literacy, there are disparities in labour force participation. While progress has been made in increasing female workforce participation, challenges such as unequal access to employment opportunities, limited job security and inadequate social protection remain. This chapter stresses the importance of addressing and promoting equal access to education and training, enhancing job opportunities and creating a supportive work environment for achieving gender equality in labour force participation.

CHAPTER V

SOCIO-ECONOMIC CHARACTERISTICS OF FISHERFOLK

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- 5.1 Introduction.
 - 5.2 Housing Status of Fisher Folk
 - 5.3 Educational Status of Fisherfolk Community
 - 5.4 Occupational Status of Fisher Folk
 - 5.5 Income and Expenditure
 - 5.6 Regional Disparities in Socio-Economic Profile
 - 5.7 Examples of some critical situations faced by fisherfolk
 - 5.8 Conclusion
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CHAPTER V

SOCIO-ECONOMIC CHARACTERISTICS OF FISHERFOLK

5.1.Introduction.

Although Kerala boasts of the highest quality of life in the country as measured by human development indicators. The fishing community of the state has largely been left out of the general development experience. The literacy level and educational attainment of fisherfolk are much lower than those of the general population (Department of Fisheries, 2005). Kerala fisherfolk communities have historically been among the poorest and most economically and socially marginalised groups. They lag behind the rest of society in terms of achieving literacy, infant mortality rates, and socio-economic improvement. The development-related indicators such as income-earning opportunities, poverty and deprivation, unsanitary and overcrowded living conditions, lack of access to basic services such as water, sanitation and electricity, poor health conditions amongst men and women, higher infant mortality rates, lower sex ratio and lack of access to health facilities, also show evidence of neglect and marginalisation of the fisherfolk in the state (ADB, 2003).

This chapter discusses the socio-economic characteristics of the fisherfolk community in the study area. To explore the characteristics of the fisherfolk community, various factors such as sex, caste, education, occupation, type of house, nature of the house, nature of family, type of ration card, income, expenditure, debt, etc...are considered. A descriptive mode of analysis is employed to examine the characteristics of the fisherfolk community by using frequency tables and cross-tabulations. Moreover, the Chi-square test is also used to determine whether there is a significant association between two categorical variables used in this chapter. This chapter also shows the association between socio-economic characteristics, livelihood patterns and developmental challenges faced by fisherfolk communities. This chapter treats the samples as households comprising 405, and members of the households as 1,712 as well, excluding 11 babies.

Table 5.1
Socio-Demographic Profile of Fisherfolk

Variables		Frequency	Per cent
Nature of Family	Joint	112	27.7
	Nuclear	293	72.3
Caste	General	1	.2
	OBC	397	98.0
	OEC	1	.2
	SC	6	1.5
Category	APL	18	4.4
	BPL	387	95.6
Colour of Ration Card	Blue	15	3.7
	Pink	347	85.6
	White	5	1.3
	Yellow	38	9.4
Total		405	100.0

Source: Primary Survey, 2022

Table 5.1 shows a comprehensive overview of the socio-demographic composition of fisherfolk surveyed in 2022, including key variables such as family structure, caste affiliation, economic categorisation, and the colour classification of ration cards. The data reveal that a significant portion of the surveyed fisherfolk reside in nuclear families (72.3%), indicating a shift in family dynamics within the community. A notable proportion of the fisherfolk community still belongs to joint families (27.7%), highlighting the persistence of traditional familial structures. In terms of caste distribution, the overwhelming majority (98%) identify as belonging to the Other Backward Classes (OBC). This highlights the significant representation of OBCs within the fishing community. It reflects the broader caste dynamics prevalent in the region. Economically, the majority of fisherfolk (95.6%) fall under the Below Poverty Line (BPL) category. It indicates a substantial proportion experiencing

economic vulnerability and limited access to resources. Furthermore, the distribution of ration card colours varied, with pink being the most common (85.6%), followed by yellow (9.4%), blue (3.7%) and white (1.3%). These variations likely signify differing levels of access to government welfare schemes and subsidies among fisherfolk. The predominance of nuclear families, high representation of OBCs, the overwhelming majority in the BPL category and varied distribution of ration card colours underline the complex socio-economic landscape of the fisherfolk community in the study area.

5.2.Housing Status of Fisherfolk

One of the principal reasons for the poor quality of life and substandard conditions of marine fishing communities in Kerala is the crowding of the community on a narrow strip of land along the length of the coastline of Kerala. The major impact of this crowding nature of living is reflected in the land-holding patterns of fishermen in Kerala. Every fisherman wishes to live on the seafront near the point where he lands his crafts and from where he can observe the sea. During the monsoon season, the sustainability of their lives, houses and land is unpredictable. All the fishing villages are more than half a kilometre wide from the seafront and in some villages, they are hardly a quarter kilometre away from the sea. The overcrowding nature leads to health and hygienic issues. The majority of the fishermen live in 'purampoku' which is the outward land owned by the government. Lack of proper housing leads to health issues. Health status is generally measured by death rate, infant mortality rate and expectation of life at birth among others. A house fulfils many important needs, especially the social needs of an individual. It is one of the vital assets to own, both for men and women.

Table 5.2

House Status of Respondents

Variable		Frequency	Per cent
Ownership of House	Owned	391	96.5
	Rented	14	3.5
Nature of House	Both Thatched and tiled	3	.7
	Concrete	138	34.1
	Fisheries house	1	.2
	Sheet	20	4.9
	Thatched	184	45.4
	Tiled	59	14.6
Total		405	100.0
Among Owned: Nature of House	Both Thatched and tiled	3	0.8
	Concrete	135	34.5
	Fisheries house	1	0.3
	Sheet	20	5.1
	Thatched	176	45.0
	Tiled	56	14.3
Total		391	100.0

Source: Primary Survey, 2022

Table 5.2 presents a broad analysis of the housing status among the respondents surveyed in 2022. The data indicates a high prevalence of homeownership, with the vast majority (96.5%) reporting ownership of their residences, while a small fraction (3.5%) stated that they live in rented dwellings. In terms of housing structures, respondents reported a diverse range of types, including both traditional and modern constructions. Concrete houses emerged as the most common type (34.1%), followed closely by thatched houses (45.4%) and tiled houses (14.6%). A small percentage reported living in both thatched and tiled houses (0.7%), while fisheries houses and sheet houses were less common, each representing only 0.2% and 4.9% of the sample, respectively. Among homeowners, the distribution of housing types remained consistent with concrete houses being the most prevalent (34.5%), followed by thatched houses (45.0%) and tiled houses (14.3%). The data

highlights the predominance of homeownership and the presence of a diverse array of housing structures.

Table 5.3
Household Facilities in Sample Villages

Facilities		Frequency	Per cent
Electricity	No	7	1.7
	Yes	398	98.3
Drinking Water	No	61	15.1
	Yes	344	84.9
Gas Connection	No	36	8.9
	Yes	369	91.1
Toilet Facilities	No	65	16.0
	Yes	340	84.0
Bed Room	No	76	18.8
	Yes	329	81.2
Mobile Phone	No	89	22.0
	Yes	316	78.0
TV	No	162	40.0
	Yes	243	60.0
Refrigerator	No	195	48.1
	Yes	210	51.9
Washing Machine	No	273	67.4
	Yes	132	32.6
Two Wheeler	No	216	53.3
	Yes	189	46.7
Three Wheeler	No	396	97.8
	Yes	9	2.2
Four Wheeler	No	401	99.0
	Yes	4	1.0
Tempo	No	403	99.5
	Yes	2	.5
Total		405	100.0

Source: Primary Survey, 2022

Table 5.3 reveals that the vast majority (98.3%) of households have access to electricity and drinking water (84.9%). It indicates high levels of electrification and potable water infrastructure within the surveyed villages. A significant proportion of households reported having a gas connection (91.1%) and access to toilet facilities (84.0%), reflecting improved cooking facilities and sanitation infrastructure. A minority of households still lack access to certain amenities, such as drinking water (15.1%) and toilet facilities (16.0%), signifying areas for targeted infrastructure development. The data also highlights disparities in the ownership of other household facilities, including mobile phones, TVs, refrigerators, and vehicles, with varying levels of ownership reported among surveyed households. Disparities in asset ownership indicate persistent income inequality and unequal access to economic opportunities among the fishing communities in the study area. It can be addressed through various livelihood support programs, asset-building schemes and financial inclusion initiatives aimed at empowering economically vulnerable households.

Table 5.4
Size of Land and House

	N	Minimum	Maximum	Average Size	Std. Deviation
House area in Sq. ft.	107	100	4500	731.83	770.316
Ownership of Land (in Cents)	320	.50	400.00	7.6970	28.40776

Source: Primary Survey, 2022

Table 5.4 presents data on the size of land and houses reported by respondents who provided information on these variables. The data reveals a wide range of variability in both house area and land ownership within the sample households. For house area in square feet, respondents reported sizes ranging from a minimum of 100 square feet to a maximum of 4500 square feet, with an average size of 731.83 square feet and a standard deviation of 770.316. For ownership of land in cents, reported sizes varied from a minimum of 0.50 cents to a maximum of 400 cents, with an average land size of 7.6970 cents and a standard deviation of 28.40776. These findings highlight the diverse housing and landholding patterns within the community. It

elaborates on differences in housing preferences, property ownership, and land availability among respondents. These variations suggest the need for inclusive housing and land development policies targeting the most landless poor and vulnerable households among the fisherfolk community.

Table 5.5

Number of Male and Female Heads in Family

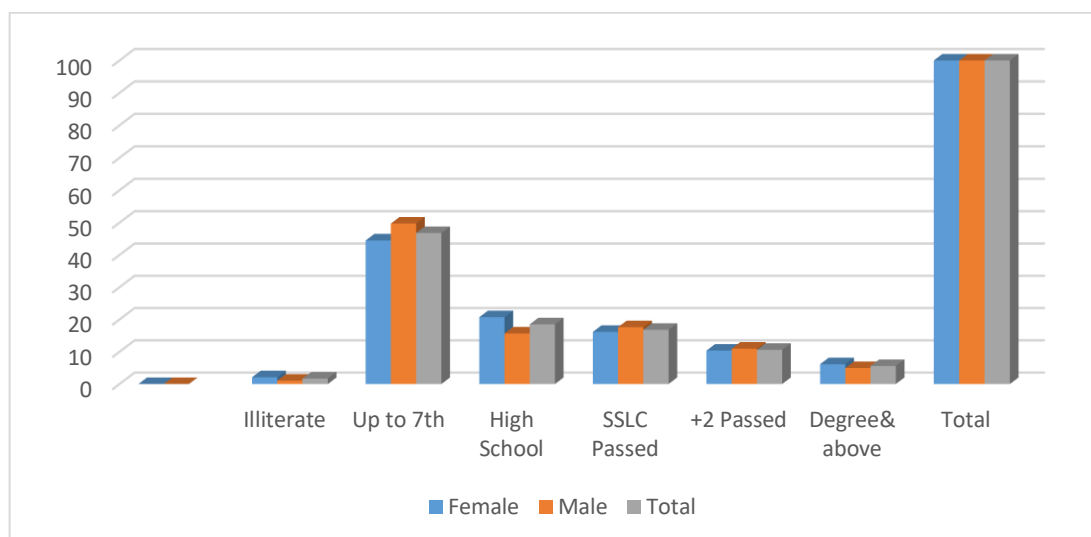
	Frequency	Per cent
Male-Headed Family	342	84.44
Female-Headed Family	63	15.56
Total	405	100.00

Source: Primary Survey, 2022

Table 5.5 shows the distribution of male and female-headed families within the surveyed households. The data reveal that the majority (84.44%) of families are headed by males, reflecting the prevalence of traditional family structures in which males typically hold the primary leadership role. Female-headed families represent a smaller proportion, accounting for 15.56% of the total. This highlights the poor representation of female-headed households in the surveyed areas. Where present, women assume primary decision-making and provider roles, often due to circumstances such as widowhood, divorce, or the absence of a male head. Analysing the gender-wise distribution of household heads is essential for comprehending family dynamics and socio-economic patterns within the community.

5.3. Educational Status of Fisherfolk Community

The overall educational status of children seems to be low in the coastal area and the status of male children is higher than that of female children. The cultural and religious barriers play a significant role in the educational attainment of youth from the fishing communities.

Figure 5.1 Educational Status of Fisherfolk Community

Source: Primary Survey, 2022

Figure 5.1 shows the educational status of members of the fishing community among the surveyed people. It highlights that out of 1712 members in the families, 46.8 per cent have education only up to 7th standard; 18.5 per cent have completed high school; 16.8 per cent are SSLC passed; 10.6 per cent have plus two education and 5.6 per cent have degree or above. Only 2 per cent of the respondents are illiterate, with no significant gender-based differences. The data reveals a trend where illiteracy is slightly higher among females, while the proportion of females with high school education and degree-level qualifications is also higher compared to males. The proportion of males with education up to 7th standard is higher and the SSLC passed slightly higher than females. It shows that gender disparity in education among Kerala fisherfolk is not as serious as seen in other fisherfolk villages outside the state. This finding is expected in Kerala with universal literacy attained even by the time of the formation of the state. Gender equality in education among fisherfolk is more evident in the given table.

5.4. Occupational Status of Fisherfolk

Occupation is one of the key domains where gender-based discrimination persists. Traditional fishing remains the primary livelihood, many individuals are

engaged in fishing-related activities. The sector shows signs of diversification, with some members seeking alternative or supplementary income sources due to declining fish stocks and economic instability.

Table 5.6
Occupational Status of Fisherfolk

Occupation	Frequency	Per cent
Fishing Related Activities	484	28.3
Business	20	1.2
Daily Wage	124	7.2
Professional	7	0.4
Students	762	44.5
No Job	315	18.4
Total	1712	100.0

Source: Primary Survey, 2022

Table 5.6 reveals a diverse range of occupations and employment statuses among respondents. The largest occupational category consists of individuals engaged in fishing-related activities, representing 28.3% of the total surveyed population. This emphasises the significance of the fishing industry as a primary source of livelihood within the community. A small percentage of individuals are involved in business ventures (1.2%) and professionals (0.4%), indicating a presence of entrepreneurship and specialised skill-based occupations within the community. Daily wage labourers constitute 7.2% of the samples, reflecting reliance on temporary employment for income generation. A substantial portion of the surveyed population consists of students (44.5%), highlighting the importance of education and skill development in shaping future employment opportunities. A significant proportion of individuals (18.4%) report having no job, indicating varying levels of unemployment or non-participation in the labour force for reasons such as retirement or caregiving responsibilities. The dominance of fishing-related activities and daily wage labour shows economic dependence on informal and unstable sources of income. High student representation signals the potential for upward mobility, while the notable

share of unemployed individuals highlights the need for exclusive employment and skill development programs.

Table 5.7
Gender Wise Occupational Status

Gender/Occupation	Female		Male	
	Frequency	Per cent	Frequency	Per cent
Fishing Related Activities	51	5.37	433	56.02
Business	15	1.58	5	0.65
Daily Wage	99	10.42	25	3.23
Professional	7	0.74	0	0.00
Students	500	52.63	262	33.89
No Job	274	28.84	41	5.30
Babies / Children	4	0.42	7	0.91
Total	950	100.00	773	100.00

Source: Primary Survey, 2022. Note: Total Number of Employed Women out of total women: 172 (18.11%), Total Number of Employed Women out of total sample: 9.98%, Total Number of Employed men out of total men: 463 (59.90%), Total Number of Employed men out of total sample: 26.87%.

Table 5.7 presents a detailed analysis of the occupation status categorised by gender. It offers certain ideas about the employment dynamics within the surveyed population. Among females, a modest proportion (5.37%) are engaged in fishing-related occupations, contrasting starkly with their male counterparts. This disparity underscores the traditional gender roles prevalent in the fishing industry, with males mainly involved in such activities. A small percentage of females (1.58%) are engaged in business ventures; the representation is even lower among males (0.65%). Females exhibit a higher engagement in daily wage labour (10.42%) compared to males (3.23%), indicating varying employment opportunities based on gender within the community. A negligible percentage of females (0.74%) report professional occupations, with no males in the sample engaged in such roles, suggesting limited participation in specialised professions among both genders. The largest occupational

category for both genders is students, yet there remains a significant disparity, with females comprising 52.63% and males 33.89%. A significant proportion of females (28.84%) report having no job, compared to only 5.30% of males, highlighting challenges faced by females in accessing employment opportunities within the community. These findings highlight the importance of addressing gender disparities in employment, promoting equal opportunities and designing specific interventions to enhance female participation in the workforce.

5.5 Income and Expenditure

Income and expenditure patterns are essential for assessing the economic well-being and financial stability of households. Examining these patterns helps to identify primary income sources, spending priorities, and the potential economic vulnerabilities faced by fishing communities in the study area.

Table 5.8

Monthly Family Income and Expenditure

Variable	Frequency	Per cent	Average
Income (in Rs.)	0-10000	354	87.4
	10000-20000	28	6.9
	20000-30000	12	3.0
	Above 30000	11	2.7
Expenditure (in Rs.)	0-10000	323	79.8
	10000-20000	53	13.1
	20000-30000	10	2.5
	Above 30000	19	4.7
Debt	No	145	35.8
	Yes	260	64.2
Total	405	100.0	NA

Source: Primary Survey, 2022

Table 5.8 presents a detailed examination of family monthly family income and expenditure within the fisherfolk community in the study area. Regarding income, the majority of families (87.4%) report modest earnings ranging from Rs 0 to 10,000 with an average income of Rs 7509.88 per family. This indicates a predominance of low-income households among the samples. Only a small fraction of families report higher income brackets, with 6.9% earning between Rs 10,000 to 20,000, 3 % earning

between Rs 20,000 to 30,000 and 2.7% earning above Rs 30,000. Expenditure patterns mirror income trends, with the majority of families (79.8%) spending within the Rs 0 to 10,000 range, yet with a slightly higher average expenditure of Rs 10,356.79 per family. A significant portion of families (64.2%) report being in debt. The data reveals that the majority of fisherfolk households operate within a low-income bracket, with average expenditures surpassing average incomes, indicating financial strain.

Table 5.9

Household Debt Overview

	Debt	Frequency	Per cent	Average
Debt (In Rs.)	0-50000	80	30.8	264734.6
	50000-100000	59	22.7	
	100000-200000	35	13.5	
	200000-300000	22	8.5	
	Above 300000	64	24.6	
	Total	260	100.0	

Source: Primary Survey, 2022

Out of the total sample of 405 households, 260 families (64.2%) are burdened with significant debt. The largest proportion (30.8%) have debts ranging from Rs. 0 to 50,000 while varying percentages fall into higher debt brackets. Notably, 24.6% of households report a substantial debt exceeding Rs. 3,00,000. The prevalence of debt among families highlights economic vulnerability and a reliance on borrowing to meet basic needs. These trends emphasise the need for income-enhancement programs and financial literacy initiatives to improve household economic stability.

5.6.Regional Disparities in Socio-Economic Profile

This section how factors such as income levels, education, healthcare access, infrastructure development and employment opportunities vary between different regions of fisherfolk communities in the study area. Through this analysis, the study seeks to identify disparities that may exist between regions in areas of socio-economic advantage or disadvantage. Insights derived from this analysis may help to implement

tailored interventions to uplift marginalised regions and promote more equitable development.

Table 5.10
Region-Wise Socio-Demographic Profile

Variables			Village				Total	Chi-Square	
			Anchuthengu	Palapetty	Ponnani	Perumathura			
Nature of family	Joint	N	45	27	15	25	112	39.797 (3) p=0.000	
		%	50.0	29.3	11.5	27.2	27.7		
	Nuclear	N	45	65	116	67	293		
		%	50.0	70.7	88.5	72.8	72.3		
Caste	General	N	0	1	0	0	1		13.480 (9) p=0.142
		%	0.0	1.1	0.0	0.0	0.2		
	OBC	N	90	87	128	92	397		
		%	100.0	94.6	97.7	100.0	98.0		
	OEC	N	0	0	1	0	1		
		%	0.0	0.0	0.8	0.0	0.2		
	SC	N	0	4	2	0	6		
		%	0.0	4.3	1.5	0.0	1.5		
Ration Card Category	APL	N	0	5	7	5	17	8.509 (6) p=0.203	
		%	0.0	5.4	5.3	5.4	4.2		
	BPL	N	90	86	124	87	387		
		%	100.0	93.5	94.7	94.6	95.6		
	No Card	N	0	1	0	0	1		
		%	0.0	1.1	0.0	0.0	0.2		
Ration Card Colour	Blue	N	0	5	5	5	15	25.845 (12) p=0.011	
		%	0.0	5.4	3.8	5.4	3.7		
	No Card	N	0	1	0	0	1		
		%	0.0	1.1	0.0	0.0	0.2		
	Pink	N	89	77	103	77	346		
		%	98.9	83.7	78.6	83.7	85.4		
	White	N	0	2	2	1	5		
		%	0.0	2.2	1.5	1.1	1.2		
	Yellow	N	1	7	21	9	38		
		%	1.1	7.6	16.0	9.8	9.4		
Total		N	90	92	131	92	405		
		%	100.0	100.0	100.0	100.0	100.0		

Source: Primary Survey, 2022

Table 5.10 presents a comprehensive overview of the socio-demographic profile of fisherfolk across four different villages: Anchuthengu, Palapetty, Ponnani

and Perumathura. The socio-demographic variables examined include the nature of the family, caste distribution, ration card category and colour. Significant differences were observed in the distribution of joint and nuclear families across the four villages ($\chi^2 = 39.797$, $p < 0.001$). While joint families were predominant in Anchuthengu and Palapetty, nuclear families were more prevalent in Ponnani and Perumathura. The data indicates significant variation in the structure of families across the villages. Anchuthengu and Palapetty have a higher proportion of joint families compared to Ponnani and Perumathura, where nuclear families are more prevalent. This suggests potential differences in familial dynamics and support systems across these communities.

There was a notable variation in the caste composition across the villages, although the differences were not statistically significant ($\chi^2 = 13.480$, $p = 0.142$). The majority of fisherfolk identified as belonging to the Other Backward Classes with minimal representation from Scheduled Castes and General category. The distribution of ration card categories did not vary significantly among the villages ($\chi^2 = 8.509$, $p = 0.203$). The majority of households possess BPL ration cards, indicating a prevalent socio-economic vulnerability among fisherfolk irrespective of their village of residence. The distribution of ration card colours varies significantly, with pink-coloured cards being the most prevalent (85.4%), followed by yellow (9.4%), blue (3.7%) and white cards (5%). This suggests differing levels of access to government welfare schemes and subsidies among the surveyed villages. A statistically significant difference was observed in the distribution of ration card colours among the villages ($\chi^2 = 25.845$, $p = 0.011$). The predominance of BPL and pink-coloured ration cards reflects widespread economic vulnerability among fisherfolk, regardless of village location. The significant variation in ration card colours suggests unequal access to government welfare schemes, pointing to the need for better targeting and equitable distribution of subsidies.

Table 5.11
Region Wise Housing Status

Variables			Village				Total	Chi-Square
			Anchuthengu	Palapetty	Ponnani	Perumathura		
Ownership of House	Owned	N	87	90	125	89	391	0.964 (3) p=0.810
		%	96.7	97.8	95.4	96.7	96.5	
	Rented	N	3	2	6	3	14	
		%	3.3	2.2	4.6	3.3	3.5	
Nature of House	Both Thatched and tiled	N	2	1	0	0	3	217.874 (15) p=0.000
		%	2.2	1.1	0.0	0.0	0.7	
	Concrete	N	54	13	12	59	138	
		%	60.0	14.1	9.2	64.1	34.1	
	Fisheries house	N	1	0	0	0	1	
		%	1.1	0.0	0.0	0.0	0.2	
	Sheet	N	2	0	0	18	20	
		%	2.2	0.0	0.0	19.6	4.9	
	Thatched	N	18	61	99	6	184	
		%	20.0	66.3	75.6	6.5	45.4	
	Tiled	N	13	17	20	9	59	
		%	14.4	18.5	15.3	9.8	14.6	
Total		N	90	92	131	92	405	
		%	100.0	100.0	100.0	100.0	100.0	

Source: Primary Survey, 2022

Table 5.11 illustrates patterns in terms of house ownership and the nature of houses among the fisherfolk community. The majority of households across all villages own their houses, with ownership rates ranging from 95.4% to 97.8%. It indicates a high level of property ownership within these communities. The chi-square test in the ownership status of houses examines whether there is a significant association between the village of residence and house ownership among fisher folk. In this case, the chi-square value is 0.964 with 3 degrees of freedom, resulting in a p-value of 0.810. The non-significant p-value suggests that there is no statistically significant relationship between the village of residence and house ownership status among fisherfolk. The proportion of fisher households owning houses does not differ significantly across the four villages surveyed. The high rate of house ownership among fisherfolk indicates a level of residential stability, which can positively influence community development and access to credit.

Regarding the nature of houses, concrete structures are the most prevalent housing type, particularly in Perumathura and Anchuthengu, comprising 64.1% and 60.0% of households, respectively. Thatched houses are more common in Palapetty and Ponnani, constituting 66.3% and 75.6% of residences, respectively. There are significant disparities in housing construction materials, with a negligible presence of fisheries houses and a notable prevalence of both thatched and tiled houses in Anchuthengu and Palapetty. This variation in the type of house reflects the diverse socio-economic conditions and environmental contexts of the surveyed villages. The variation in housing quality, especially the prevalence of thatched houses in certain villages, highlights underlying economic disparities and vulnerability to environmental risks.

Table 5.12
Household Facilities in Surveyed Villages

Facilities		Village				Total
		Anchuthengu	Palapetty	Ponnani	Perumathura	
Electricity	N	88	90	128	92	398
	%	97.8	98.9	97.7	100.0	
Drinking Water	N	64	89	120	71	344
	%	71.1	97.8	91.6	77.2	
Gas Connection	N	85	87	109	88	369
	%	94.4	95.6	83.2	95.7	
Toilet facilities	N	81	87	83	89	340
	%	90.0	95.6	63.4	96.7	
Bedroom	N	85	86	70	88	329
	%	94.4	94.5	53.4	95.7	
Mobile Phones	N	84	80	64	88	316
	%	93.3	87.9	48.9	95.7	
TV	N	76	46	44	77	243
	%	84.4	50.5	33.6	83.7	
Fridge	N	63	42	37	68	210
	%	70.0	46.2	28.2	73.9	
Washing Machine	N	30	34	35	33	132
	%	33.3	37.4	26.7	35.9	
Two Wheeler	N	43	54	47	45	189
	%	47.8	59.3	35.9	48.9	
Three Wheeler	N	3	2	2	2	9
	%	3.3	2.2	1.5	2.2	
Four Wheeler	N	0	2	0	2	4
	%	0.0	2.2	0.0	2.2	
Tempo	N	0	1	0	1	2
	%	0.0	1.1	0.0	1.1	
Total	N	90	91	131	92	405

Source: Primary Survey, 2022

Table 5.12 shows the availability of various facilities within households across the four surveyed villages inhabited by fisherfolk. Across all villages, access to basic amenities appears to be widespread. All households in Perumathura have electricity,

while in Anchuthengu, Palapetty, and Ponnani, access ranges from 97.8% to 100%, showcasing near-universal access to this essential utility. Access to drinking water is also high, with availability ranging from 71.1% to 97.8% across the villages, indicating well-established infrastructure. A significant majority of households have a gas connection, with coverage between 83.2% and 95.6%, reflecting modernized cooking practices. Toilet facilities are present in a large proportion of homes, ranging from 63.4% in Palapetty to 96.7% in Perumathura, underlining continued efforts in sanitation development.

The presence of bedrooms in households varies, from 53.4% in Ponnani to 95.7% in Perumathura, suggesting disparities in housing quality. Access to washing machines is moderate, ranging between 26.7% and 37.4%. Vehicle ownership also reflects this diversity, while two-wheeler ownership is notable (35.9% to 59.3%), ownership of three-wheelers, four-wheelers, and tempos remains relatively low, pointing to limited household-level mobility and capital investment in these assets.

Table 5.13

Region-wise Monthly Income and Expenditure of Respondents

Variables			Village				Total	Chi-Square
			Anchuthengu	Palapetty	Ponnani	Perumathura		
Income (in Rs)	0-10000	N	73	88	130	63	354	62.137 (9) p=0.000
		%	81.1	95.7	99.2	68.5	87.4	
	10000-20000	N	12	3	0	13	28	
		%	13.3	3.3	0.0	14.1	6.9	
	20000-30000	N	3	0	0	9	12	
		%	3.3	0.0	0.0	9.8	3.0	
	Above 30000	N	2	1	1	7	11	
		%	2.2	1.1	0.8	7.6	2.7	
Expenditure (in Rs)	0-10000	N	59	88	106	70	323	81.455 (9) p=0.000
		%	65.6	95.7	80.9	76.1	79.8	
	10000-20000	N	28	1	4	20	53	
		%	31.1	1.1	3.1	21.7	13.1	
	20000-30000	N	3	0	5	2	10	
		%	3.3	0.0	3.8	2.2	2.5	
	Above 30000	N	0	3	16	0	19	
		%	0.0	3.3	12.2	0.0	4.7	

Source: Primary Survey, 2022

Table 5.13 illustrates the monthly income and expenditure of respondents categorised by different villages within the surveyed fisherfolk households. There are apparent variations in monthly income and expenditure across the different regions. In Anchuthengu, a substantial proportion of respondents report an income ranging from Rs 0 to 10,000, with 81.1% falling within this category. In Palapetty, a higher percentage (95.7%) of respondents report an income in this range. Similar trends are observed in Ponnani and Perumathura, albeit to varying degrees. Regarding expenditure, the majority of respondents across all regions report expenditures ranging from Rs 0 to 10,000 with Palapetty exhibiting the highest percentage (95.7%) in this category. In Anchuthengu and Perumathura, a considerable proportion of respondents report expenditures exceeding 10,000 rupees, indicating potential financial strain. The chi-square results for both income ($\chi^2 = 62.137$, $p = 0.000$) and expenditure ($\chi^2 = 81.455$, $p = 0.000$) also indicate statistically significant variations in income and expenditure levels across the surveyed villages. The dominance of low-income brackets across all villages, especially in Palapetty, reflects widespread economic vulnerability among fisherfolk households. Higher expenditure levels in Anchuthengu and Perumathura suggest potential financial stress and reliance on credit.

Table 5.14
Region-wise Debt Status of Respondents

Variables			Villages				Total	Chi-Square
			Anchuthengu	Palapetty	Ponnani	Perumathura		
Debt (in Rs)	0-50000	N	4	26	40	10	80	45.448 (12) p=0.000
		%	5.9	40.6	44.0	27.0	30.8	
	50000-100000	N	22	8	22	7	59	
		%	32.4	12.5	24.2	18.9	22.7	
	100000-200000	N	6	11	9	9	35	
		%	8.8	17.2	9.9	24.3	13.5	
	200000-300000	N	8	6	5	3	22	
		%	11.8	9.4	5.5	8.1	8.5	
	Above 300000	N	28	13	15	8	64	
		%	41.2	20.3	16.5	21.6	24.6	

Source: Primary Survey, 2022

Table 5.14 exhibits the debt status of the respondents categorised by different villages within the surveyed fisherfolk communities. When considering debt status, respondents from Palapetty stand out with a significant proportion (40.6%) reporting debts ranging from Rs 0 to 50,000. Respondents from Ponnani and Perumathura also report substantial debt burdens across different debt brackets. The chi-square test results indicate statistically significant associations between villages and debt ($\chi^2 = 45.448$, $df = 12$, $p < 0.001$). It highlights the regional disparities in financial profiles within the surveyed fisherfolk communities. The significant regional disparities in debt levels suggest uneven financial stress among fisherfolk, with certain villages like Palapetty bearing a heavier burden of low to moderate debt. This emphasises the need for village-specific financial planning, debt relief measures and inclusive credit access to support economic resilience.

5.7 Examples of some critical situations faced by fisherfolk

The focus group highlighted the challenges they recently faced due to the **ship-sinking incident** on the Kerala coast. This led to low demand for fish because of concerns over chemical contamination in the sea and related health risks. Fisherfolk had to convince customers about the safety of fish consumption. The high price of fish caught by traditional fishermen during the trawl ban, combined with the fallout from ship accidents involving chemical containers, negatively impacted the livelihoods of poor fisherfolk by reducing demand and causing significant income loss. Their fishing vessels and nets were damaged, especially those operating in coastal areas near the shipwreck sites. These insights are based on news reports and information shared by the focus group. Scientifically, such incidents have long-lasting impacts, credible data and detailed studies are currently lacking.

During the **trawl ban**, the availability of fish resources is very low. The limited fish supply results in high prices, but these high prices sometimes lead to reduced demand, which adversely affects both consumers and fisherfolk. Fish sellers are unable to offer a variety of fish during this period, and fisherfolk struggle to meet their daily expenses.

5.8. Conclusion

Despite the overall advancement of Kerala in human development indicators, the socio-economic profile of the fisherfolk community in the study area reveals a pattern of entrenched marginalisation and limited access to development opportunities. The predominance of nuclear families, the high representation of Other Backward Classes (OBC), and the widespread issuance of BPL ration cards collectively point to structural economic vulnerability among the fisherfolk communities in Kerala. Though most households enjoy access to basic amenities such as electricity, drinking water and sanitation, disparities persist in the ownership of durable goods and housing quality. It suggests uneven economic capacities and priorities. The variations in the nature and quality of houses, as well as access to household assets like vehicles and appliances, reflect broader income inequality within the community.

Though a significant number of individuals rely on daily wage work or remain unemployed, fishing remains the principal source of livelihood, especially for women. While education levels indicate progress toward universal literacy, gendered disparities in employment, income and occupational roles are still evident. Income-expenditure data reveals widespread financial strain, with many households reporting expenditures that exceed their monthly income and a substantial proportion burdened by debt. The regional variations in income, expenditure and debt status further highlight the need for location-specific interventions. The chapter stresses the interplay between socio-economic characteristics, livelihood patterns and developmental challenges faced by fisherfolk.

CHAPTER VI

FEMALE WORK PARTICIPATION AMONG FISHERFOLK

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- 6.1 Introduction
 - 6.2 Hypotheses
 - 6.3 Work Participation Rates among Female Fisherfolk
 - 6.4 Determinants of Female Work Participation among Fisherfolks
 - 6.5 Conclusion
-

CHAPTER VI

FEMALE WORK PARTICIPATION AMONG FISHERFOLK

6.1. Introduction

Female labour force participation plays a vital role in ensuring inclusive economic development and social equity in the fisherfolk community. The fisheries sector is an important component of Kerala's economy and it provides livelihoods to a significant portion of its coastal population. It supports income generation and contributes substantially to the food security and export earnings of the state. The contribution of women in the fisheries sector spans a wide range of activities, including post-harvest activities like fish drying, cleaning, vending and processing.

Though the fisheries sector in Kerala is a crucial source of livelihood for coastal populations, gender disparities persist in terms of access to work, earnings and recognition. Works of womenfolk often go unrecognised in official labour statistics, and this leads to underestimation of their economic roles. Analysing the extent of women's participation in this sector is essential for framing policies aimed at promoting gender equality and empowering fisherwomen in both social and economic dimensions.

The total sample size of the study comprises 405 households, each represented by one individual respondent. These 405 families account for a total of 1,712 household members, excluding 11 infants, who were not considered in the analysis. Each selected individual serves as a representative of their household and provides the necessary information regarding the socio-economic and employment-related aspects of the family. Out of the 405 individual respondents, a significant majority (398) were female, and only 7 were male. This reflects the study's targeted focus on women within the fisherfolk community and their involvement (or lack thereof) in the workforce. The statistical tools used in this chapter are the Chi-square test, independent samples t-test, ANOVA and binary logistic regression analysis. The binary logistic regression analysis was performed based on the following relevant hypotheses.

6.2. Hypotheses

1. Women from Thiruvananthapuram district are significantly more likely to participate in work compared to women from Malappuram district.
2. Women with greater family control and fewer societal restrictions are more likely to participate in work.
3. Women from nuclear families are more likely to participate in work compared to those from joint families.

6.3. Work Participation Rates among Female Fisherfolk

This section seeks to provide insights into the gender dynamic, shaping the economic landscape of fisherfolk communities by examining factors influencing female work participation rates, such as socio-cultural norms, access to education and resources and economic opportunities. It also provides diverse roles that women undertake within fisherfolk households and communities based on samples, exploring their engagement in fishing-related activities as well as their involvement in alternative livelihood pursuits. Analysing the nuanced realities of female work participation rates is essential for designing targeted interventions that promote gender equity, enhance livelihood opportunities and foster sustainable development within fisherfolk communities.

Table 6.1

Distribution of Female Fisherfolk in the Selected Villages by Working Status

Working Status		Thiruvananthapuram		Malappuram		Total
		Anchuthengu	Perumathura	Ponnani	Palapetty	
Not Employed	N	39	44	112	67	262
	%	44.3	48.4	85.5	76.1	65.8
Employed	N	49	47	19	21	136
	%	55.7	51.6	14.5	23.9	34.2
Total	N	88	91	131	88	398
	%	100.0	100.0	100.0	100.0	100.0
Chi-Square Result			Value=57.141, df=3, p=0.000			

Source: Primary survey, 2022

Table 6.1 shows that employment rates varied significantly across the study regions. In the Thiruvananthapuram district, villages such as Anchuthengu and Perumathura reported higher female work participation rates of 55.7% and 51.6%, respectively. In the Malappuram district, villages like Ponnani and Palapetty exhibited notably lower employment rates with only 14.5% and 23.9% of women employed, respectively.

A chi-square test of independence indicated a significant association between working status and village of residence, $\chi^2 (3, N = 398) = 57.141, p = 0.000$. It suggests that the distribution of work participation among fisherwomen varied significantly across the selected villages.

This regional disparity may be influenced by differences in available economic opportunities, proximity to urban centres, access to alternative livelihoods and prevailing socio-cultural norms. Socio-economic factors such as education levels, household structure and infrastructure development could also contribute to the variation in work participation rates. These findings highlight the importance of considering local socio-economic dynamics when designing policies to promote female labour force participation among fisherfolk communities.

Table 6.2

Work Participation Rate of Women in the Fishing Villages

Category	Gender	No. of Labourers	Working Age Population	Work Participation Rate (%)
Among all People	Female	172	669	25.71
	Male	463	610	75.90
Among Total Working Population	Female	172	1279	13.45
	Male	463	1279	36.20
Among people in Fishing Related jobs	Female	51	669	7.62
	Male	433	610	70.98

*Source: Primary survey, 2022, Female Work Participation Rate = (No. Female Labour in Samples/ Working Age Population in Sample)*100*

Table 6.2 presents the work participation rates of females and males in fishing villages across different categories. Among the total, 25.71% of females and 75.90% of males are engaged in some form of work. When examining the total working population, the female work participation rate is notably lower at 13.45% compared to 36.20% among males. A sharper gender gap is observed in fishing-related jobs, where only 7.62% of females are employed compared to 70.98% of males.

These findings reveal a substantial gender disparity in work participation within fishing communities. While men dominate the workforce, especially in fishing-related occupations, female participation remains low across all sectors. It indicates the presence of significant barriers to women’s employment. These barriers may include socio-cultural constraints, limited access to education and vocational training and traditional gender roles within the community. The significant gender disparity in work participation limits the overall productivity and economic growth potential of fishing communities. Improving women’s access to employment opportunities can lead to more inclusive and sustainable economic development in these regions.

Table 6.3

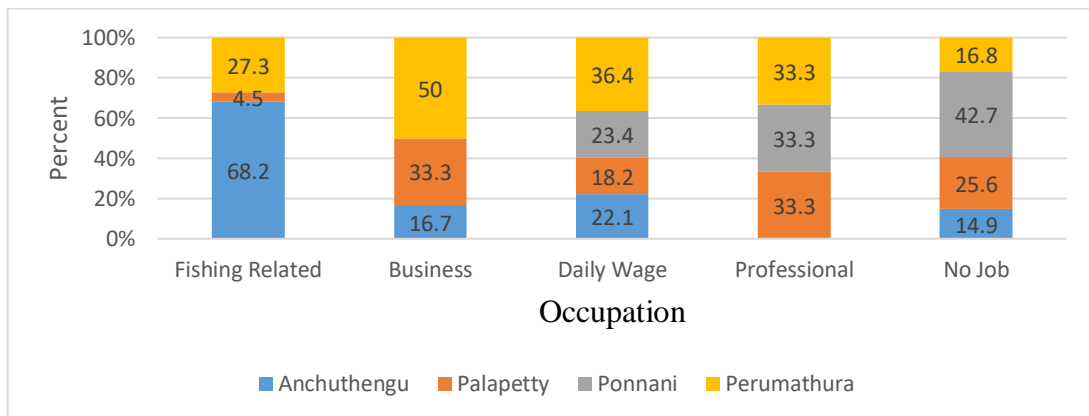
Occupation Status of Women Fisherfolk in the Sample Villages

Occupation		Thiruvananthapuram		Malappuram		Total
		Anchuthengu	Perumathura	Ponnani	Palapetty	
Fishing and Related	N	30	12	0	2	44
	%	34.1	13.2	0	2.3	11.1
Business	N	2	6	0	4	12
	%	2.3	6.6	0	4.5	3.0
Daily Wage	N	17	28	18	14	77
	%	19.3	30.8	13.7	15.9	19.3
Professional	N	0	1	1	1	3
	%	0.0	1.1	0.8	1.1	0.8
No Job	N	39	44	112	67	262
	%	44.3	48.4	85.5	76.1	65.8
Total	N	88	91	131	88	398
	%	100.0	100.0	100.0	100.0	100.0
Chi-Square Result		Value=101.200, df=12, p=0.000				

Source: Primary Survey, 2022

Table 6.3 illustrates that the majority of fisherwomen are not engaged in any job, constituting 48.4% in Anchuthengu, 48.4% in Perumathura, 85.5% in Ponnani and 76.1% in Palapetty, with an overall percentage of 65.8% across all villages. Daily wage labour is the next most prevalent occupation among women, with percentages ranging from 13.7% in Ponnani to 30.8% in Anchuthengu and Perumathura. Fishing-related activities show varying degrees of engagement across villages, representing 13.2% in Anchuthengu and Perumathura, 2.3% in Palapetty and 0% in Ponnani. Business and professional occupations exhibit minimal participation among women in the sample villages. The chi-square test indicates a significant association between occupation status and villages ($\chi^2 = 101.200$, $df = 12$, $p = 0.000$), suggesting variations in the distribution of women's occupations across different geographic locations. These findings emphasize the influence of local socio-economic factors and cultural contexts on the employment opportunities and choices of women within fishing communities. The prevalence of non-employment among women, particularly in villages like Ponnani and Palapetty, highlights potential challenges related to economic opportunities and gender disparities in workforce participation.

Figure 6.1 Place and Occupation Status of Fisherfolk Women



Source: Primary Survey, 2022, Note: percent within occupation

Figure 6.1 shows that fishing-related activities account for 68.2% of occupations in Anchuthengu and 27.3% in Perumathura. In Palapetty, the share is much lower at 4.5%, signifying limited reliance on the fishing sector compared to other areas. Business engagement is highest in Perumathura (50%) and Palapetty

(33.3%), while Anchuthengu records 16.7%. These figures reflect varying levels of commercial activity across the study areas. Daily wage labourers constitute 23.4% of the workforce in Ponnani, 36.4% in Perumathura, 18.2% in Palapetty and 22.1% in Anchuthengu. Casual labour is an important livelihood source across multiple villages. The presence of professional occupations in Palapetty, Ponnani and Perumathura are the same (33.33%). Unemployment rates are highest in Ponnani and Palapetty compared to Anchuthengu and Perumathura. High rates of unemployment suggest significant challenges related to job availability.

The variation in occupational patterns reflects unequal access to economic opportunities among the fishing villages. Heavy dependence on daily wage labour and high unemployment rates indicate economic vulnerability among the fishing community. Promoting diversification of livelihoods and skill development is essential for improving income stability and reducing regional disparities.

Table 6.4

Distribution of Fisher Women by Working Status and Mobility

Working Status		Mobility of women in the locality					Total	Average
		Very Low	Low	Moderate	High	Very High		
Employed	N	6	10	57	43	20	136	3.45
	%	11.8	20.4	39.0	37.1	55.6	34.2	
Not Employed	N	45	39	89	73	16	262	2.91
	%	88.2	79.6	61.0	62.9	44.4	65.8	
Total	N	51	49	146	116	36	398	3.09
	%	100	100	100	100	100	100	
Independent Sample t-test		t=-4.625, df=396, p=0.000						

Source: Primary survey, 2022

Table 6.4 indicates that employed fisherwomen are more evenly distributed across mobility levels, with the highest share in areas of moderate mobility (39.0%), while unemployed fisherwomen are heavily concentrated in very low mobility areas (88.2%). The mean mobility score is higher among employed women (M = 3.45) compared to unemployed women (M = 2.91). An independent samples t-test showed a statistically significant difference in mobility scores between employed and

unemployed fisherwomen, $t(396) = -4.625, p = 0.00$. It suggests that greater mobility is associated with higher work participation among fisherwomen in the study area. Limited mobility restricts employment opportunities for fisherwomen, reinforcing economic dependency and vulnerability. Improving local infrastructure and mobility access can enhance women’s participation in the workforce and support broader community development.

Table 6.5

Occupational Status of Fisherwomen and Access to Nearby Jobs

Occupation		Mobility of women in the locality					Total	Average
		Very Low	Low	Moderate	High	Very High		
Fishing Related Jobs	N	24	8	4	5	3	44	1.98
	%	16.1	8.5	4.7	11.1	12.5	11.1	
Business	N	4	1	7	0	0	12	2.25
	%	2.7	1.1	8.1	0.0	0.0	3.0	
Daily Wage	N	33	14	19	7	4	77	2.16
	%	22.1	14.9	22.1	15.6	16.7	19.3	
Professionals	N	1	1	1	0	0	3	2.00
	%	0.7	1.1	1.2	0.0	0.0	0.8	
No Job	N	87	70	55	33	17	262	2.32
	%	58.4	74.5	64.0	73.3	70.8	65.8	
Total	N	149	94	86	45	24	398	2.25
	%	100.0	100.0	100.0	100.0	100.0	100.0	
ANOVA		F (4,393)= 0.915, p =0.455						

Source: Primary survey, 2022

Table 6.5 analyses the occupational status of fisherwomen based on the mobility of their locality, indicating access to nearby jobs. Fishing-related employment is most common in areas with very low mobility (16.1%). It suggests proximity to coastal or landing sites. Daily wage labour shows a dispersed pattern across low (14.9%), moderate (22.1%), and high (15.6%) mobility levels. Business activity is slightly higher in moderate mobility areas (8.1%), indicating better access to markets. The result shows that unemployment is notably high in very low (58.4%), low (74.5%), and high (73.3%) mobility areas. It highlights mismatches between job availability and women’s access or suitability. The ANOVA test indicates no

statistically significant differences in the suitability of job opportunities across occupational categories ($F(4, 393) = 0.915, p = 0.455$). These results emphasise the importance of considering both mobility levels and occupational status when evaluating job suitability for women fisherfolk.

Limited variation in the perceived suitability of job opportunities suggests that structural factors may be overriding occupational differences in job access. Regions with extreme mobility levels may hinder job access for certain groups, thus affecting overall workforce participation.

Table 6.6

Female Employment Pattern between Sample Districts

Occupation		District		Total
		Trivandrum	Malappuram	
Fishing Related Jobs	N	42	2	44
	%	23.5	0.9	11.1
Business	N	8	4	12
	%	4.5	1.8	3.0
Daily Wage	N	45	32	77
	%	25.1	14.6	19.3
Professionals	N	1	2	3
	%	0.6	0.9	0.8
Unemployed	N	83	179	262
	%	46.4	81.7	65.8
Total	N	179	219	398
	%	100.0	100.0	100.0

Source: Primary Survey, 2022

Table 6.6 compares the female employment patterns between the selected districts. In Thiruvananthapuram, 23.5% of women are engaged in fishing-related jobs, while in Malappuram, the share is only 0.9%. Daily wage labour represents 25.1% of employment in Thiruvananthapuram and 14.6% in Malappuram. Notably, 81.7% of women in Malappuram reported being unemployed, compared to 46.4% in Thiruvananthapuram. Business activities and professional jobs account for very small proportions in both districts. The results highlight substantial regional disparities in

female employment patterns, with Malappuram showing significantly higher levels of unemployment among fisherwomen.

The high unemployment rate in Malappuram suggests limited livelihood opportunities for women, reinforcing regional economic inequalities. Greater engagement in fishing-related and daily wage work in Thiruvananthapuram reflects better access to employment avenues. Policy interventions are needed to expand job opportunities and reduce district-level disparities in the economic participation of fisherwomen.

Table 6.7

Monthly Income of Female Fisherfolk by Occupation

Occupation	N	Average	Std. Deviation	Std. Error
Fishing Related Jobs	44	4911.36	4012.38	604.89
Business	12	6833.33	5457.83	1575.54
Daily Wage	77	3642.86	1720.34	196.05
Professionals	3	5166.67	1443.38	833.33
Total	136	4368.38	3194.15	273.90
ANOVA	F (3,132) = 4.521, p= 0.005			

Source: Primary Survey, 2022

Table 6.7 presents that females engaged in fishing-related occupations earn Rs. 4911.36 per month with a standard deviation of Rs. 4012.38. Those involved in business activities have a higher average income of Rs. 6833.33 per month with a relatively higher standard deviation of Rs. 5457.83. Daily wage labourers earn an average of Rs. 3642.86 per month with a lower standard deviation of Rs. 1720.34. Professionals have an average income of Rs. 5166.67 per month, with a standard deviation of Rs. 1443.38. The total average income for females across all occupations is Rs. 4368.38 per month with a standard deviation of Rs. 3194.15. The analysis of variance (ANOVA) test indicates a statistically significant difference in income levels across different occupations ($F(3,132) = 4.521, p = 0.005$). It suggests that occupation type influences the monthly income of females. Occupation type significantly affects

female income levels. It highlights income inequality among different work categories. Promoting access to higher-paying occupations like business and professional work can enhance the economic status of fisherwomen.

Table 6.8
Monthly Income of Female Fisherfolk by Occupation-Region Wise

District	Thiruvananthapuram				Malappuram			
	N	Average	Std. Dev.	Std. Error	N	Average	Std. Dev.	Std. Error
Fishing Related Jobs	42	4859.52	4101.70	632.91	2	6000.00	0.00	0.00
Business	8	7125.00	6311.84	2231.57	4	6250.00	3947.57	1973.79
Daily Wage	45	4011.11	1896.43	282.70	32	3125.00	1295.15	228.95
Professionals	1	3500.00	.	.	2	6000.00	0.00	0.00
Total	96	4636.46	3550.27	362.35	40	3725.00	2003.04	316.71
ANOVA	F (3,92) = 1.919, p= 0.132				F (3,36) = 7.015, p= 0.001			

Source: Primary Survey, 2022

Table 6.8 illustrates that females engaged in fishing-related occupations in Thiruvananthapuram earn an average monthly income of Rs. 4859.52 with a standard deviation of Rs. 4101.70, while in Malappuram, the average income for this occupation is Rs. 6000. For business activities, females in Thiruvananthapuram earn an average monthly income of Rs. 7125 with a standard deviation of Rs. 6311.84, whereas in Malappuram, the average income is Rs. 6250. Daily wage labourers in Thiruvananthapuram earn an average of Rs. 4011.11 per month with a standard deviation of Rs. 1896.43, while in Malappuram, the average income is Rs. 3125. Only one professional in Thiruvananthapuram is recorded, earning Rs. 3500 per month. The ANOVA test reveals no significant difference in monthly income across occupations within Thiruvananthapuram ($F(3,92) = 1.919, p = 0.1320$). In Malappuram, the ANOVA test indicates a significant difference in income across occupations ($F(3,36) = 7.015, p = 0.001$), implying that occupation type also plays a role in determining income levels in this region. These findings highlight the variability in income levels among females engaged in different occupations and operating in distinct regions.

6.4. Determinants of Female Work Participation among Fisherfolk

Gender disparity is often linked to work participation rates, reflecting broader societal dynamics and structural inequalities. Within fishing communities, where gender roles are traditionally defined, understanding the determinants of work participation among women is crucial for addressing gender disparities effectively. The determinants of work participation, including factors such as access to education, economic opportunities, cultural norms and household responsibilities, significantly influence gender disparities within fishing communities. Limited access to education and training opportunities for women may constrain their ability to engage in certain types of work within the fishing sector, perpetuating gender disparities in employment and income. Cultural norms and gender stereotypes often dictate the division of labour within fishing communities, with women frequently relegated to unpaid domestic work or low-paid, informal employment. This unequal distribution of labour reinforces gender disparities, limiting the economic empowerment and social mobility of women.

Analysing the determinants of female work participation among fisherfolk is important for comprehending the dynamics of gender roles within fishing communities and formulating effective policies to promote gender equity and socio-economic development. In this section, we explore the factors that influence the extent of female involvement in work activities within fishing communities. By investigating various socio-economic, cultural and environmental factors, the study aims to give an overview of the nuanced interplay between these determinants and female work participation.

By examining the determinants of work participation among women in fishing communities, policymakers and stakeholders can identify opportunities to address gender disparities effectively. Strategies aimed at promoting gender equality, such as improving access to education and training, enhancing women's participation in decision-making processes, and providing support for women-led enterprises, can help to mitigate gender disparities and foster more inclusive and equitable fishing communities. Finally, addressing the determinants of work participation among

women is essential for promoting gender equality and sustainable development within the fishing sector.

6.4.1. Education

Education plays a pivotal role in shaping work participation patterns, particularly among women in various sectors, including fishing communities. In the context of fishing communities, education can serve as both a determinant and a facilitator of work participation, influencing the engagement of women in economic activities and their overall empowerment. Access to education can significantly impact the entry of women into the workforce within fishing communities. Higher levels of education are often associated with increased opportunities for formal employment, entrepreneurship and leadership roles. Women with access to quality education may be better equipped to pursue diverse career paths within the fishing sector, including roles in fisheries management, research, marketing, and entrepreneurship. Education can challenge traditional gender roles and norms prevalent in fishing communities, empowering women to assert their rights and pursue economic opportunities outside the confines of traditional gender expectations.

Educated women are more likely to challenge discriminatory practices and advocate for gender equality, leading to greater inclusion and participation of women in decision-making processes within the fishing sector. Education may enhance the skills, knowledge and confidence of women and equip them to navigate and adapt to changing socio-economic and environmental conditions in fishing communities. Therefore, education is a vital determinant of work participation among women in fishing communities, shaping their economic opportunities, empowerment, and overall well-being. By addressing barriers to education and promoting gender-responsive approaches, policymakers and stakeholders can unlock the full potential of women in the fishing sector, contributing to more inclusive and sustainable development outcomes.

Table 6.9

Educational Qualifications of Respondents and Work Participation

Educational Qualifications		Work Status		Total
		Not Working	Working	
Illiterate	N	7	4	11
	%	2.7	2.94	2.76
Up to 7 th	N	209	50	259
	%	79.8	36.76	65.08
High School	N	26	50	76
	%	9.9	36.76	19.10
SSLC Passed	N	15	27	42
	%	5.7	19.85	10.55
Plus Two Passed	N	3	4	7
	%	1.1	2.94	1.76
Degree & Above	N	2	1	3
	%	0.8	0.74	0.75
Total	N	262	136	398
	%	100.0	100.0	100.0
Chi-Square		Value: 77.82, df: 5, p:0.000		

Source: Primary Survey, 2022

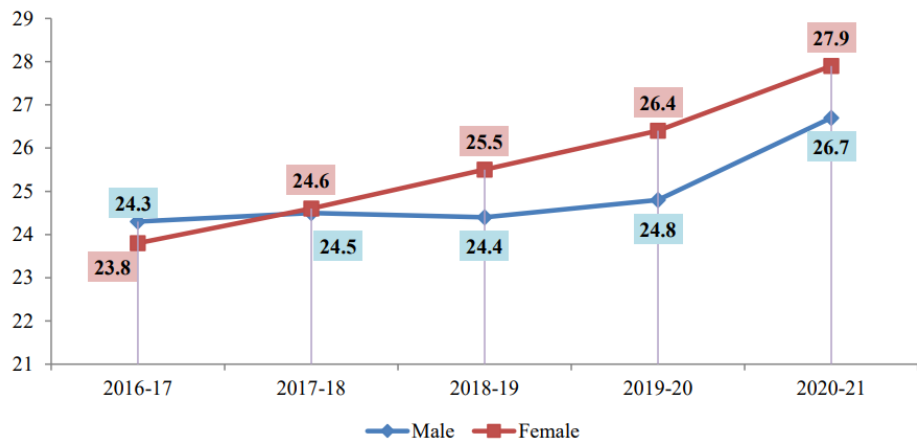
Table 6.9 illustrates a significant relationship between educational attainment and work participation among respondents. Among respondents with no formal education (illiterate), the majority are not engaged in formal employment, comprising 2.7% of the total sample. Among those with education up to the 7th grade, a substantial portion (79.8%) are not working. It specifies a strong association between lower levels of education and lower work participation rates. As educational attainment increases, there is a noticeable shift towards higher levels of work participation. Among respondents with high school education, 36.76% are engaged in employment, and this trend continues with higher levels of education. Among those with a degree or above, the vast majority are employed. The chi-square test confirms a significant association between educational qualification and work participation ($\chi^2 = 77.82$, $df = 5$, $p < 0.001$), indicating that educational attainment is indeed a determinant of work participation within fishing communities.

Higher educational attainment significantly improves work participation among fisherwomen, thereby leading to better access to employment opportunities. Low education levels contribute to persistent unemployment and underemployment in fishing communities. Strengthening educational access and skill development is essential for enhancing the economic empowerment of women in these regions.

6.4.2 Relationship with education and work participation

Here is a comparison of India's education level and female work participation with the sample respondents' educational qualifications and work participation.

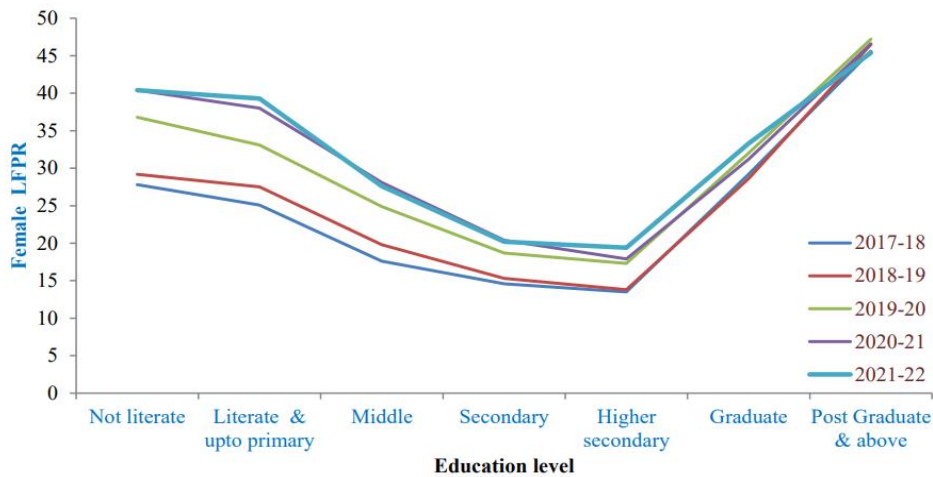
Figure 6.2: All India survey on higher education AISHE, Ministry of education



Source: All India Survey on Higher Education (AISHE), Ministry of Education

There is an increase in the enrollment ratio of both male and female students from 2016-17 to 2020-21. As per the AISHE survey on higher education 2020-21 GER(Gross Enrollment Ratio)for the male population at the all-India level was 26.7, and GER for the female population at the all-India level was 27.9(Employment statistics in focus April 2023)

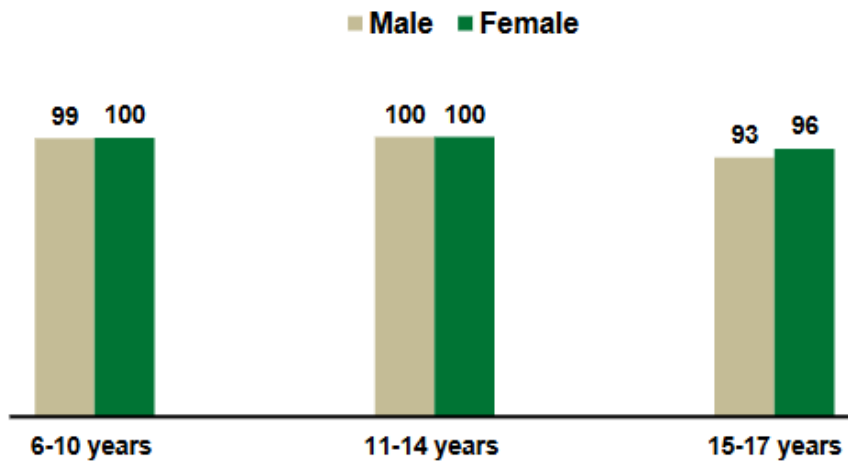
Figure 6.3 Relationship between FLPR and Education Level



Source: PLFS, MoSPI

Andres et al (2017) narrated that there is a U-shaped relationship between education and work participation, which grows positively for low and very high levels of education, but negatively for moderate levels of education (secondary and high school). As household income increases, females have more opportunities to pursue education, which keeps them out of the labour force. When the education and income are low, the high participation rate is explained by the need to have an income source. (Directorate General of Employment, Female labour utilisation in India, (Employment statistics in focus April 2023)

Figure 6.4 Percentage of children attending school by age



Source: NFHS 2021

School attendance among children in Kerala

Almost 98% children aged 6-17 years in Kerala attend school. School attendance is universal at age 6-14 years, but drops to 94% at age 15-17 years. There is no gender disparity in school attendance in the 6-14-year age group. However, in the age group 15-17 years, 96 per cent of girls, compared with 93% of boys, are attending. (NFHS 2021)

6.4.3 Marital Status of Respondents and Work Participation

Marital status has a significant influence on the decision-making of women participating in the labour force. In the case of single women, working at home does not constitute a major activity, and hence their choice narrows down to either paid employment or leisure. But in the case of married women, household duties are much more and married women are less likely to enter the labour force than single women. Home and childcare responsibilities demand a substantial amount of mothers' and wives' time, which otherwise could be spent on gainful activities. Single women may decide to work out of sheer economic necessity. Thus, the widowed, the separated or the divorced are more likely to take up jobs than women whose husbands are alive. The lower economic position of husbands may compel a married woman to take up employment to supplement family income.

In the context of work participation among women in fishing communities, the marital status of respondents emerges as a significant factor influencing their engagement in economic activities. Research conducted by Smith et al. (2020) found that marital status plays a crucial role in shaping the employment decisions of women within these communities.

Table 6.10

Marital Status of Respondents and Work Participation

Marital Status		Work Status		Total
		Not Working	Working	
Married	N	250	122	372
	%	67.2	32.8	100.0
Separated	N	0	1	1
	%	0	100	100
Single	N	8	12	20
	%	40.0	60.0	100.0
Widowed	N	4	1	5
	%	80.0	20.0	100.0
Total	N	262	136	398
	%	65.8	34.2	100.0
Chi-Square		Value: 8.617, df: 3, p=0.035		

Source: Primary Survey, 2022

Table 6.10 examines the relationship between marital status and work participation among 398 respondents. The majority of the sample consists of married individuals, with 67.2% not working and 32.8% engaged in employment. For the category single, out of 20 respondents, 60% are working and 40% are not working. This relatively high rate of work participation suggests that unmarried women may face fewer domestic responsibilities and societal restrictions. It enables greater engagement in the workforce compared to other marital status groups. The results of the chi-square test indicated a statistically significant association between marital status and work participation, $\chi^2 (3, N = 398) = 8.617, p = .035$. It suggests that employment patterns vary significantly based on marital status. These results imply that marital status influences the economic engagement of women within the fishing community. Marital responsibilities appear to restrict women's work participation, limiting their economic independence and contribution. Supporting flexible work arrangements and community-based employment options could help married women to engage more actively in the labour force.

6.4.4 Type of Family and Work Participation

The relationship between family structure and work participation is an important aspect of the socio-economic dynamics of fishing villages. Understanding how different family types influence the engagement of individuals in work can provide clear ideas for designing targeted interventions and policies aimed at enhancing livelihoods and socio-economic well-being. Another variable that is expected to have a positive influence on female labour force participation is the presence of relatives and dependents in the household. As a proxy for the inclusion of this variable, the household is classified into joint or nuclear.

Table 6.11

Type of Family and Work Participation of Women Fisherfolk

Type of Family		Work Status		Total
		Not Working	Working	
Joint	N	56	53	109
	%	51.4	48.6	100.0
Nuclear	N	206	83	289
	%	71.3	28.7	100.0
Total	N	262	136	398
	%	65.8	34.2	100.0
Chi-Square		Value: 19.940 df: 1, p:0.000		

Source: Primary Survey, 2022

Table 6.11 reveals a notable association between family structure and women's work participation. Among women from joint families, the proportion of those not engaged in work (51.4%) is nearly equal to those who are working (48.6%). Among women from nuclear families, a significant majority (71.3%) are not working, while only a minority (28.7%) are engaged in work. This discrepancy suggests that family structure plays a significant role in influencing the decisions of women to participate in the workforce within fishing communities. Factors such as household responsibilities, cultural norms and access to support networks may vary between joint and nuclear families. The chi-square test result of 19.940 with a p-value of 0.000 indicates a statistically significant association between family type and women's work participation. Family structure significantly influences the work participation of

women, with joint families providing greater support for employment. Strengthening community and family support systems can help to enhance the economic engagement of women in fishing communities.

6.4.5. Employment Status of Family Head in Relation to Female Work Participation

The employment status of key household members, such as the family head can significantly influence the participation of women in the labour force. In traditional fishing communities, economic dependence and household responsibilities often shape the work decisions of women. A working family head may support the employment opportunities of women based on socio-economic dynamics. Understanding these relationships helps to reveal hidden barriers or enablers affecting female work participation. This section examines how the employment situation within households impacts the engagement of women in economic activities.

Table 6.12

Employment Status of Head of the Family and Working Status of Respondents

Employment of Family Head		Work Status of Respondent (Female)		Total
		Not Working	Working	
Not Employed	N	35	17	52
	%	13.4	12.5	13.1
Daily Wage/Self Employed	N	11	34	45
	%	4.2	25.0	11.3
Business	N	1	3	4
	%	0.4	2.2	1.0
Farming	N	0	1	1
	%	0.0	0.7	0.3
Working Abroad	N	5	0	5
	%	1.9	0.0	1.3
Professionals	N	0	2	2
	%	0.0	1.5	0.5
Fishing Related Jobs	N	210	79	289
	%	80.2	58.1	72.6
Total	N	262	136	398
	%	100.0	100.0	100.0
Chi-Square		Value: 51.655, df: 6, p:0.000		

Source: Primary Survey, 2022

Table 6.12 revealed that 13 per cent of women had unemployed family heads and 11 per cent of women had parents with daily wage/self-employed. Nearly 3 per cent of parents are doing business/farming/working abroad. Parents of 72.6 per cent of women are doing fishing-related work. Thus there is an intergenerational upward mobility in the employment of fisher folk. It is also found that among the working women, a lesser percentage belong to parents doing fishing-related activities than those among non-working women. The chi-square test result of 51.655 with a p-value of 0.000 indicates a statistically significant association between the occupational status of the head of the family and the working status of female respondents. The strong link between the occupation of family head and female work participation suggests that traditional fishing occupations may limit women's economic advancement. Intergenerational mobility toward non-fishing jobs can open more diverse employment opportunities for women. Policies promoting skill development and alternative livelihoods are essential to break occupational dependency within fishing communities.

6.4.6. Family Income and Female Work Participation

The relationship between family income and female work participation has long been a subject of scholarly inquiry. It aims to explore and analyse the association between family income and female work participation, drawing upon existing research and empirical evidence. One of the primary drivers influencing female work participation is economic need within the family unit. Lower family income often necessitates increased female labour force participation to supplement household earnings. Research by Blau & Kahn (2017) indicates that women from economically disadvantaged backgrounds are more likely to engage in paid employment compared to those from higher-income households.

Table 6.13

Family Income and Female Work Participation among Fisherfolk

Work Status		Mean	N	Std. Deviation			
Not Working		7525.95	262	9189.37			
Working		3180.88	136	5473.04			
Total		6041.21	398	8364.21			
Independent Sample t-test							
Tests	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	4.48	.035	5.07	396	.000	4345.07	857.75
Equal variances are not assumed.			5.89	389	.000	4345.07	736.56

Source: Primary Survey, 2022, Note: Monthly Family Income except Women = Family Income- income earned by women,

Table 6.13 displays the female labour participation and monthly family income excluding the income of women. Exclusion of women's income may give a correct picture of the economic position of the households regardless of the contribution of women. In that way, it indicates that female labour force participation arises out of economic necessity. Over monthly family income excepting that of women is found at Rs.6041; in the case of non-working women, it is Rs 7525 and in the case of working women, it is Rs 3180. It shows that working women have 2.4 times lower income than non-working women and this lower income compels them for employment. The coefficient of family income is found to be negative and significant. This indicates that the propensity to work is higher in families with lower incomes than in families with higher incomes. An independent sample t-test was conducted to examine the equality of means between the not working and working groups. The results indicate significant differences in mean family income between the two groups. This analysis

suggests a substantial disparity in family income between women who are working and those who are not. The mean family income for women not working is significantly higher compared to those who are employed. These findings emphasise the economic dynamics influencing female employment within fishing communities.

6.4.7. Income and Expenditure of Fisherfolk and Female Labour Force Participation

The income and expenditure patterns within the fisherfolk community play a vital role in determining female labour force participation. The involvement of women in fishing-related activities is often influenced by household income levels, as well as the distribution of financial responsibilities. In many cases, economic necessity drives women to contribute to family incomes through both formal and informal labour. However, the extent of their participation is also determined by household expenditure needs, which may limit or encourage their entry into the workforce.

Table 6.14

Income and Expenditure of Fisherfolk and Work Status

Opinions		Work Status		Total Respondents
		Not Working	Working	
Can Balance income and Expenditure	N	199	91	290
	%	76.0	66.9	72.9
Can't Balance income and Expenditure	N	63	45	108
	%	24.0	33.1	27.1
All	N	262	136	398
	%	100.0	100.0	100.0
Chi-Square		Value: 3.702, df: 1, p:0.054		

Source: Primary Survey, 2022

Table 6.14 shows that 27 per cent of families are unable to balance income and expenditure. It is found that 24 per cent of non-working women and 33 per cent of working women cannot balance their income and expenditure and they need to find some other sources of finance either to run their business or look after their families.

Despite the slight difference, a notable proportion of both working (66.9%) and not working (76.0%) individuals express confidence in their ability to balance income and expenditure. A smaller percentage of both groups (working: 33.1%, not working: 24.0%) feel unable to balance their finances.

A chi-square test was conducted to examine the relationship between income and expenditure balance and female labour force participation. The results indicated no statistically significant association between the ability to balance income and expenditure and work status, with a chi-square value of 3.702, $df = 1$, and $p = 0.054$. This suggests that while a higher percentage of working women report an inability to balance their income and expenditure, the difference is not statistically meaningful at the 0.05 significance level. The findings suggest that financial instability, as measured by income-expenditure balance, may not significantly influence work status in fishing communities. Other socio-economic factors, such as access to resources and gender norms, might play a more prominent role in determining women’s workforce involvement.

Table 6.15

Ration Card Category and Work Status of Female Fisherfolk

Working Status		Card Category			Total
		APL	BPL	No	
Not working	N	12	249	1	262
	%	75.0	65.4	100.0	65.8
Working	N	4	132	0	136
	%	25.0	34.6	0.0	34.2
Total	N	16	381	1	398
	%	100.0	100.0	100.0	100.0
Chi-Square Result			Value=1.155, df=2, p=0.561		

Source: Primary Survey, 2022

Table 6.15 illustrates the distribution of working status among fisherfolk concerning their public distribution Ration card category. Among both working and non-working fisher folk, the holding of BPL cards is 34.6% and 65.4% respectively.

No individuals in the working group possess any cards, suggesting that all working individuals have some form of identification or entitlement status. The chi-square test reveals no significant association between working status and card category ($p = 0.561$), indicating that the distribution of card categories among working and non-working individuals does not differ significantly. This finding implies that while the card category may have implications for access to certain benefits or entitlements, it does not appear to be a significant determinant of work status among fisherfolk in the surveyed population.

6.4.8. Religion and Work Status of Female Fisherfolk

Religion plays a significant role in determining female labour force participation. Many religious traditions prescribe gender roles that assign women primary responsibility for domestic duties, potentially limiting their engagement in paid work, particularly in conservative religious communities. Research by Bursztyn & Coffman (2012) suggests that adherence to traditionalist religious doctrines correlates with lower female labour force participation due to an emphasis on familial roles. However, religious institutions can also serve as sources of social support and empowerment, providing initiatives like vocational training and microfinance that enhance the economic independence of women. Studies by Mahmud & Sultan (2018) show how such institutions can promote female entrepreneurship and higher workforce participation. The relationship between religion and female labour force participation is shaped by religious diversity, with varying beliefs and practices influencing attitudes toward women's roles in the labour market. Comparative studies by Alsan & Wanamaker (2016) highlight the complex and context-dependent nature of this relationship.

Table 6.16

Religion and Work Status of Female Fisherfolk

Working Status		Religion			Total
		Christian	Hindu	Muslim	
Not Working	N	39	17	206	262
	%	43.8	85.0	71.3	65.8
Working	N	50	3	83	136
	%	56.2	15.0	28.7	34.2
Total	N	89	20	289	398
	%	100.0	100.0	100.0	100.0
Chi-Square Result			Value=26.251, df=2, p=0.000		

Source: Primary Survey, 2022

Table 6.16 examines the relationship between the working status of individuals within the fishing community and their religious backgrounds. Among Christians, a substantial proportion (56.2%) are engaged in employment, contrasting with 43.8% who are not employed. Hindus exhibit a higher percentage (85.0%) of individuals not working, with only 15.0% actively employed. Among Muslims, the majority (71.3%) are not engaged in employment, while 28.7% are part of the workforce. The chi-square test results demonstrate a significant association between working status and religion ($\chi^2 = 26.251$, $df = 2$, $p = 0.000$). This indicates that the distribution of employment status varies significantly across different religious groups within the community. These findings suggest that religious affiliation serves as a determinant of female work participation within the fishing community. Cultural and social factors inherent to each religious group likely influence individuals' decisions regarding workforce participation.

Table 6.17

Religion and Occupation Status among Female Fisherfolk

Occupation		Religion			Total
		Christian	Hindu	Muslim	
Fishing Related	N	30	0	14	44
	%	33.7	0.0	4.8	11.1
Business	N	3	0	9	12
	%	3.4	0.0	3.1	3.0
Daily Wage	N	17	2	58	77
	%	19.1	10.0	20.1	19.3
Professional	N	0	1	2	3
	%	0.0	5.0	0.7	0.8
No Job	N	39	17	206	262
	%	43.8	85.0	71.3	65.8
Total	N	89	20	289	398
	%	100.0	100.0	100.0	100.0
Chi-Square Result		Value=101.345, df=8, p=0.000			

Source: Primary Survey, 2022

Table 6.17 examines the association between religion and occupation status among individuals within the fishing community. Among Christians, the majority are engaged in fishing-related occupations (33.7%) and daily wage labour (19.1%), while a smaller proportion is involved in business (3.4%) and professional occupations (0%). Among Hindus, there are no individuals engaged in fishing-related occupations, but some are involved in daily wage labour (10%) and business (0.0%). Among Muslims, fishing-related occupations (4.8%) and daily wage labour (20.1%) are observed, with 2 individuals reported in professional occupations. A chi-square test reveals a significant association between religion and occupation status ($\chi^2 = 101.345$, $df = 8$, $p < 0.001$). It shows that the distribution of occupation status differs significantly across religious groups within the community. These findings suggest that religious affiliation may influence the choice of occupation among individuals within the fishing community. Cultural norms, traditions and community networks associated with specific religions may shape occupational preferences and opportunities.

Table 6.18

Caste and Working Status among Female Fisherfolk

Working Status		Caste				Total
		General	OBC	OEC	SC	
Not Working	N	1	255	1	5	262
	%	100.0	65.4	100.0	83.3	65.8
Working	N	0	135	0	1	136
	%	0.0	34.6	0.0	16.7	34.2
Total	N	1	390	1	6	398
	%	100.0	100.0	100.0	100.0	100.0
Chi-Square Result			Value=1.890, df=3, p=0.596			

Source: Primary Survey, 2022

Table 6.18 explores the relationship between working status and caste among individuals within the fishing community. Among General caste individuals, there is only one respondent, who is not working. For the OBC category, the majority (65.4%) are not employed, while 34.6% are part of the workforce. In the SC category, the majority (83.3%) are not engaged in employment, with only 16.7% actively employed. There are no individuals from the OEC caste group who are working. The chi-square test results indicate no significant association between working status and caste ($\chi^2 = 1.890$, $df = 3$, $p = 0.596$). This suggests that the distribution of employment status does not vary significantly across different caste groups within the community. These findings imply that caste affiliation does not serve as a significant determinant of female work status within the fishing community. Other socio-economic factors may have a more substantial influence on workforce participation decisions among individuals, irrespective of caste background.

6.4.9. Other Determinants

Various social, economic and cultural factors influence female work participation. Factor analysis conducted on these determinants reveals several key variables, including gender wage disparities, with men often earning more for similar work, and employer biases that favour male hires. Societal perceptions that certain jobs are suited only for men further limit the employment opportunities of women. Marriage-related responsibilities, such as domestic chores and child-rearing, constrain

the ability of women to engage in paid work. Social factors, such as decision-making power, respect within the family and community and participation in social activities also play pivotal roles in shaping the employment choices of women. Finally, gender discrimination and stereotypes present persistent barriers to women’s access to employment and career advancement.

Table 6.19 Factors Affecting Work Participation of Females- Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy								0.928
Bartlett's Test of Sphericity		Approx. Chi-Square						11051.7
		Df						325
		Sig.						.000
Sl. No.	Factors	Latent factors						
		Family Control	Restrictions	Responsibility	Preference of men	Mobility/Job Opportunities	Awareness	
1	Higher Wages are Given to Men Only				.833			
2	Employees Prefer Men Only				.725			
3	Some jobs can be done by men only.				.725			
4	Marriage Related Responsibility			.925				
5	More Household Chores to Women			.953				
6	More duty of Child rearing			.903				
7	Mobility of women in the locality					.681		
8	Suitable jobs nearby					.871		
9	Decision-making power	.681						
10	Respect in the family	.987						
11	Respect in the society	.957						
12	Participation in social activities	.947						
13	Societal status	.887						
14	Freedom of Mobility	.857						
15	Family Support	.928						
16	Support from Society	.896						
17	Government Support	.644						
18	Dependence on others	.767						

19	Religion restrictions		.856				
20	Restriction due to tradition and culture		.801				
21	Socio-economic Awareness of Women						.873
Eigen Values		11.36	3.26	2.60	1.66	1.19	1.02
Percent of total variation explained		43.69	12.53	10.01	6.38	4.58	3.92
Cumulative Percent of the variance explained		43.69	56.23	66.24	72.6	77.2	81.13
Extraction Method: Principal Component Analysis.							
Rotation Method: Oblimin with Kaiser Normalization.							
Rotation converged in 7 iterations.							

Source: Primary Survey, 2022

A factor analysis was conducted in Table 6.19 to identify the key factors affecting female work participation. The results indicate strong sampling adequacy (Kaiser-Meyer-Olkin Measure = 0.928) and significant results from Bartlett’s Test of Sphericity ($\chi^2 = 11051.7$, $df = 325$, $p < 0.001$). The analysis revealed six dormant factors: family control, restrictions, responsibility, preference for men, mobility/job opportunities and awareness. The factors explained a cumulative 81.13% of the total variance. Among the variables, the highest loadings were observed in factors related to gender biases, such as higher wages being given to men only (0.833) and employees preferring men only (0.725). Responsibilities such as marriage-related responsibility (0.925) and more household chores assigned to women (0.953) were significant determinants of female work participation. The factors of family support (0.928) and respect in the family (0.987) were also influential in shaping work participation. The findings suggest that both socio-cultural and economic factors play crucial roles in limiting or encouraging female workforce engagement. The analysis highlights that gender biases, domestic responsibilities, and limited job opportunities significantly hinder female labour force participation.

Table 6.20 (a)

Personal Factors Affecting Work Participation of Fisherwomen by Working Status: Descriptive Statistics

Factors	Working Status	N	Mean	Std. Deviation
Marriage Related Responsibility	Not Working	262	4.00	0.83
	Working	136	3.74	1.41
More Household Chores	Not Working	262	3.96	0.85
	Working	136	3.80	1.37
More duty of Child rearing	Not Working	262	3.97	0.88
	Working	136	3.91	1.29
Decision-making power	Not Working	262	3.15	1.39
	Working	136	3.35	1.16
Respect in the family	Not Working	262	3.32	1.43
	Working	136	3.93	1.19
Respect in the society	Not Working	262	3.25	1.42
	Working	136	3.84	1.23
Societal status	Not Working	262	2.95	1.32
	Working	136	3.68	1.21
Freedom of Mobility	Not Working	262	2.90	1.33
	Working	136	3.65	1.23
Possession of Special skill	Not Working	262	2.64	1.35
	Working	136	2.90	1.51
Religious restrictions	Not Working	262	2.58	1.32
	Working	136	2.60	1.49
Restriction due to tradition and culture	Not Working	262	2.67	1.33
	Working	136	2.84	1.49
Family Support	Not Working	262	2.97	1.38
	Working	136	3.91	1.24
Support from Society	Not Working	262	2.93	1.35
	Working	136	3.86	1.21
Government Support	Not Working	262	2.83	1.32
	Working	136	3.51	1.39
Dependence on other family members	Not Working	262	2.90	1.30
	Working	136	3.58	1.15
Gender discrimination	Not Working	262	2.77	1.31
	Working	136	2.54	1.48

Source: Primary survey, 2022, 1-Very Low, 5- Very High

Table 6.20 (a) presents the descriptive statistics for personal factors affecting the work participation of fisherwomen, segmented by working status. Non-working fisherwomen report higher mean scores for marriage-related responsibility (4.00), household chores (3.96), and child-rearing duties (3.97) compared to their working counterparts. These higher scores suggest that non-working women perceive a heavier burden from domestic responsibilities. Working fisherwomen report significantly

higher mean values for respect in the family (3.93) and respect in society (3.84) compared to non-working women (3.32 and 3.25, respectively). It indicates that paid employment may enhance social respect and recognition. Family support (3.91) and societal support (3.86) are also notably higher for working fisherwomen. It suggests that the support systems in place for those who are employed are stronger. Freedom of mobility shows a marked difference with working women (3.65) enjoying more mobility than non-working women (2.90). Government support also has a higher mean score for working fisherwomen (3.51) compared to non-working women (2.83). It reflects that access to resources may enable greater work participation. Gender discrimination is slightly lower among working women (2.54) than non-working women (2.77) and both groups still report notable barriers in the form of gender biases. These values suggest that domestic and societal responsibilities, along with support from family, society and government, play a significant role in the decision to engage in paid employment.

Table 6.20 (b)

Personal Factors Affecting Work Participation of Fisherwomen by Working Status: Independent Sample t-test

Statements	Independent Sample t-test		
	t	Df	Sig. (2-tailed)
Marriage Related Responsibility	1.931*	185.248	.055
More Household Chores	1.249*	191.105	.213
More duty of Child rearing	.437*	201.445	.662
Decision-making power	-1.585*	319.412	.114
Respect in the family	-4.565*	319.102	.000
Respect in the society	-4.274*	309.379	.000
Participation in political Activities	.715	396	.475
Participation in social activities	-4.923	396	.000
Societal status	-5.345	396	.000
Freedom of mobility	-5.465	396	.000
Possession of special skill	-1.791	396	.074
Religion restrictions	-.077*	245.193	.939
Restriction due to tradition and culture	-1.096*	247.147	.274
Family Support	-6.671	396	.000
Support from Society	-6.786	396	.000
Government Support	-4.756	396	.000
Dependence on others	-5.141	396	.000
Traditional attitudes	-1.532*	240.705	.127
Gender discrimination	1.581*	245.998	.115

Note: *- Equal variances not assumed, Source: Primary survey, 2022

Table 6.20 (b) presents the results of independent sample t-tests assessing the significance of differences in means between working and non-working fisherwomen on various personal factors. For marriage-related responsibility, the t-value is 1.931 with 185.248 degrees of freedom and a p-value of .055. It indicates that the difference between the two groups is marginally significant at the .05 level. However, for factors such as respect in the family ($t = -4.565$, $p < .005$), respect in the society ($t = -4.274$, $p < .005$), participation in social activities ($t = -4.923$, $p < .005$), societal status ($t = -5.345$, $p < .005$), freedom of mobility ($t = -5.465$, $p < .005$), family support ($t = -6.671$, $p < .005$), support from society ($t = -6.786$, $p < .005$), government support ($t = -4.756$, $p < .005$) and dependence on others ($t = -5.141$, $p < .005$), the p-values are all less than .05. It proposes significant differences between working and non-working fisherwomen. These results highlight that these factors are crucial in determining the work participation of fisherwomen. Specifically, non-working fisherwomen report lower levels of respect, freedom of mobility, family and societal support and government assistance compared to their working women. These significant differences underline the role of social, familial and governmental factors in shaping the decision of fisherwomen to participate in paid work. On the other hand, factors like possession of special skill ($t = -1.791$, $p = .074$) and religious restrictions ($t = -0.077$, $p = .939$) were not found to have significant differences between the two groups, indicating they may not be as influential in determining work participation. These findings shed light on the personal, social and structural factors that affect the ability and willingness of fisherwomen to engage in work outside the home.

Table 6.21

Determinants of Female Work Participation: Explanation of Variables

Dependent Variable Encoding						
Original Value			Internal Value			
No			0			
Yes			1			
Categorical Variables Coding						
		N	Parameter coding			
			(1)	(2)	(3)	(4)
Educational Qualification of Father	Illiterate	50	1.000	.000	.000	.000
	Up to 7th	336	.000	1.000	.000	.000
	High School	6	.000	.000	1.000	.000
	SSLC Passed	5	.000	.000	.000	1.000
	Degree/Above	1	.000	.000	.000	.000
Marital Status		41	1.000	.000	.000	.000
	Married	331	.000	1.000	.000	.000
	Separate	1	.000	.000	1.000	.000
	Single	20	.000	.000	.000	1.000
	Widowed	5	.000	.000	.000	.000
District	Trivandrum	179	1.000			
	Malappuram	219	.000			
Balancing of Income and Expenditure	No	290	1.000			
	Yes	108	.000			
Nature of family	Joint	109	1.000			
	Nuclear	289	.000			
Continuous Variables						
Preference of Men	Average of 3 Variables found in factor analysis (component 4)					
Family Responsibility	Average of 3 Variables found in factor analysis (component 3)					
Job Opportunities or Mobility	Average of 2 Variables found in factor analysis (component 5)					
Restrictions	Average of 2 Variables found in factor analysis (component 2)					
Family Control	Average of 10 Variables found in factor analysis (component 1)					
Awareness	Average of 6 variables					

Source: Primary Survey, 2022

Table 6.21 outlines several categorical variables used in the binary logistic regression model. These variables are categorised into distinct groups and assigned internal values for comparison. The educational qualification of the father is classified into five categories, including illiterate, up to 7th grade, high school, SSLC passed and degree/above, with illiterate as the reference category. Marital status is categorised into married, separate, single and widowed, with married as the reference group. The variable district distinguishes between Thiruvananthapuram and Malappuram, with Thiruvananthapuram as the reference category. Other categorical variables include whether the household balances income and expenditure (coded as no for 1 and yes for 0) and the nature of the family (joint vs nuclear, with the joint as the reference group).

The continuous variables in the model represent various socio-cultural and economic factors that could influence female work participation. These include preference of men, family responsibility, job opportunities or mobility, restrictions, family control and awareness. Each of these continuous variables is derived from factor analysis, combining multiple related items into a single average score. The preference of men reflects societal attitudes toward male work participation, while family responsibility captures the perceived duties women have within the household. Job opportunities or mobility addresses the availability of jobs, and restrictions measure societal or personal constraints on women's work. Awareness represents knowledge of work-related policies or societal expectations regarding female employment. Family Control is measured as the average of Likert-scale items capturing women's decision-making power, social respect, mobility, support systems, dependence, and cultural and religious restrictions, reflecting their overall level of autonomy and control within the family and society.

Table 6.22

Determinants of Female Work Participation: Results of Binary Logistic Regression

Omnibus Tests of Model Coefficients						
		Chi-square	Df	Sig.		
Step 1	Step	153.630	17	.000		
	Block	153.630	17	.000		
	Model	153.630	17	.000		
Model Summary						
Step	-2 Log likelihood	Cox & Snell R Square		Nagelkerke R Square		
1	357.531	.320		.443		
Hosmer and Lemeshow Test						
Step	Chi-square	Df	Sig.			
1	14.882	8	.061			
Classification Table						
	Observed	Predicted			Percentage Correct	
		Work Status				
		Not Working	Working			
Step 1	Work Status	Not Working	229	33	87.4	
		Working	49	87	64.0	
	Overall Percentage				79.4	
Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Education of father			5.637	4	.228	
Education of father (1)	-22.397	40191.81	.000	1	1.000	.000
Education of father (2)	-22.067	40191.81	.000	1	1.000	.000
Education of father (3)	-20.057	40191.81	.000	1	1.000	.000
Education of father (4)	-23.016	40191.81	.000	1	1.000	.000
Marital Status			.788	4	.940	
Marital Status(1)	1.432	1.849	.599	1	.439	4.185
Marital Status(2)	1.200	1.813	.438	1	.508	3.319
Marital Status(3)	20.061	40192.97	.000	1	1.000	515771374.3
Marital Status(4)	1.315	1.875	.492	1	.483	3.726

Nature of family(1)	.558	.304	3.362	1	.067	1.747
Family income except for female	.000	.000	34.431	1	.000	1.000
Balance income expenditure(1)	-.368	.309	1.417	1	.234	.692
District(1)	2.233	.356	39.410	1	.000	9.327
Preference of men	-.168	.196	.729	1	.393	.846
Family Responsibility	-.055	.130	.181	1	.670	.946
Job opportunities	.021	.152	.019	1	.891	1.021
Family control	.375	.182	4.252	1	.039	1.455
Restrictions	-.370	.172	4.637	1	.031	.690
Constant	20.797	40191.81	.000	1	1.000	1076044830

Source: Primary Survey, 2022

Table 6.22 presents the results of a binary logistic regression analysis examining the determinants of female work participation. Significant predictors of female work participation include family income except for female, nature of the family, district, family control and restrictions. The variable district is significant (Exp (B) = 9.327) with women in Thiruvananthapuram being significantly more likely to participate in work compared to those in Malappuram. Therefore, it is advisable to accept the first hypothesis, which states that women from Thiruvananthapuram district are significantly more likely to participate in work compared to women from Malappuram district. Family control (Exp (B) = 1.455) and restrictions (Exp (B) = .690) also significantly affect work participation. Results show that women with more family control are more likely to participate in work. It indicates that women with more decision-making power are more likely to engage in employment. Similarly, women facing societal restrictions are less likely to engage in paid employment. Because, lower restrictions enable women to act independently, thereby increasing work participation. Thus, we accept the second hypothesis, which postulates that women with greater family control and fewer societal restrictions are more likely to participate in work.

The nature of family shows a positive and significant (at a 10% level) relationship with female work participation (Exp (B) = 1.747). It suggests that women from Joint families are about 1.75 times more likely to participate in work compared

to those from nuclear families. Family income, except for female members, is statistically significant (Exp (B) = 1.000). The odds ratio of exactly 1.000 implies that changes in family income (excluding the woman's contribution) do not meaningfully alter the odds of her participation in work. This suggests that female work participation is relatively independent of the family's existing financial status. It emphasises that other social or personal factors might be stronger drivers of women's decision to work rather than household income alone.

Variables include the educational qualification of the father, and marital status for married, separated and single women; marital status is not a significant predictor of female labour force participation. The lack of significance for the educational qualification of the father suggests that paternal education does not have a direct influence on female labour force participation. Marital status for certain groups and balance income expenditure do not show statistically significant effects in this context.

The Omnibus Tests of Model Coefficients indicate that the model as a whole is statistically significant (Chi-square = 153.630, $p < .001$). It advises that the included variables significantly predict the likelihood of female work participation. The model summary shows a Cox & Snell R Square of .320 and a Nagelkerke R Square of .443, indicating a moderate to strong explanatory power. The Hosmer and Lemeshow test (Chi-square = 14.882, $p = .061$) suggests a good fit of the model to the data.

The results imply that regional economic development and social empowerment are crucial for increasing female work participation. Policies must address regional disparities, family dynamics and societal restrictions. Family income alone does not drive women's work decisions, highlighting the role of non-economic factors. Encouraging joint family structures and reducing restrictions can enhance female labour force participation. Expanding women's workforce participation will contribute to broader economic growth and inclusivity.

6.5. Hypotheses Testing

Hypothesis 1: Women from Thiruvananthapuram district are significantly more likely to participate in work compared to women from Malappuram district.

Table 6.1 (distribution by village and χ^2 test) shows large and statistically significant regional differences in employment ($\chi^2 = 57.141$, $df = 3$, $p = 0.000$). Table 6.6

(employment pattern by district) makes the contrast explicit: in Thiruvananthapuram, 46.4% of sampled women are unemployed (thus 53.6% employed), whereas in Malappuram, 81.7% are unemployed (only 18.3% employed); fishing-related jobs account for 23.5% of employment in Thiruvananthapuram but only 0.9% in Malappuram. The binary logistic regression (Table 6.22) confirms the district effect while controlling for other predictors: District variable has $B = 2.233$, $Wald = 39.410$, $p = 0.000$ and $Exp(B) = 9.327$. This indicates that, given the model coding, the odds of a woman being employed are about 9.33 times higher in Thiruvananthapuram compared with Malappuram.

Interpretation & decision: The results consistently indicate a strong and statistically significant positive effect of being in Thiruvananthapuram on female work participation. Accept Hypothesis 1.

Hypothesis 2: Women with greater family control and fewer societal restrictions are more likely to participate in work.

The factor analysis in Table 6.19 identifies coherent constructs (including Family Control and Restrictions) with good sampling adequacy ($KMO = 0.928$, Bartlett's test $p = 0.000$). In the binary logistic model (Table 6.22) Family control has $B = 0.375$, $Wald = 4.252$, $p = 0.039$ and $Exp(B) = 1.455$, indicating that a one-unit increase in the family-control score raises the odds of being employed by about 45.5%, holding other variables constant. Restrictions have $B = -0.370$, $Wald = 4.637$, $p = 0.031$ and $Exp(B) = 0.690$, indicating that higher restriction scores reduce the odds of employment (odds multiplied by 0.69 for each unit increase in restrictions). Supporting descriptive evidence appears in Table 6.20(a) and the t-tests in Table 6.20(b): working women report substantially higher mean scores on family support, respect, freedom of mobility and other enabling items (e.g., family support mean 3.91 for working vs 2.97 for non-working; $t = -6.671$, $p = 0.000$), which correspond to the family control and empowerment dimension.

Interpretation & decision: Both the multivariate regression and the factor/t-test evidence support the proposition that stronger family control in the sense of greater decision-making and family support and lower societal restrictions increase the likelihood of female employment. Hypothesis 2 is accepted.

Hypothesis 3: Women from nuclear families are more likely to participate in work compared to those from joint families.

The cross-tabulation in Table 6.11 shows the opposite pattern to the hypothesis: Among joint-family respondents, 48.6% are working (53 out of 109), whereas among nuclear-family respondents, only 28.7% are working (83 out of 289). The chi-square test for type of family and work status is significant ($\chi^2 = 19.940$, $df = 1$, $p = 0.000$), indicating a meaningful association. The logistic regression (Table 6.22) reports Nature of family(1) with $B = 0.558$, $Wald = 3.362$, $p = 0.067$ and $Exp(B) = 1.747$. According to the coding in Table 6.21, the category coded as “1” corresponds to a joint family (with nuclear family as the other code). Thus, the positive B and $Exp(B) = 1.747$ indicate that membership of a joint family increases the odds of employment by about 74.7% compared to the reference category. In short, both the bivariate table and the regression indicate higher participation among women in joint families, not nuclear families.

Interpretation & decision: The data do not support the stated hypothesis; instead, they point to the reverse relationship, that women in joint families are more likely to participate in work. Hypothesis 3 is rejected.

6.6. Conclusion

The chapter explored the determinants and patterns of female work participation among fisherfolk. It reveals interactions of socio-economic, cultural and regional factors in determining female work participation. The findings demonstrate that education, family structure, occupational status of the head of the family, regional location and social restrictions significantly influence the work participation of female fisherfolk. Higher educational attainment of the respondents positively correlates with higher work participation rates, while traditional marital and family structures sometimes act as constraints. Women from nuclear families, with greater decision-making power and mobility, and those belonging to economically supportive regions show higher rates of workforce participation. Women facing strong domestic responsibilities, societal restrictions and limited family support are less likely to participate in paid work. Binary logistic regression analysis further strengthens these observations by identifying district, family control and restrictions as statistically significant determinants. The gender gap is prominent across all sectors, with men

overwhelmingly dominating fishing-related employment, thereby emphasising the persistent gender inequality in labour force participation among fisherfolk.

The broader implications of the study underline that female work participation is shaped not just by economic necessity but also by deeply entrenched social and cultural norms. Enhancing the participation of women in the workforce among fisherfolk communities requires multi-dimensional efforts. It includes improving access to education, reducing domestic burdens through community support mechanisms, expanding job opportunities beyond traditional sectors and fostering attitudinal changes towards the roles of women both within the family and in society. Competent authorities need to recognise the importance of regional planning to address the differences observed between districts like Thiruvananthapuram and Malappuram. Strengthening family support, improving mobility infrastructure and ensuring the access of women to government and institutional support are also significant. Promoting gender-sensitive interventions can lead to greater empowerment of fisherwomen. It also contributes to the socio-economic advancement and resilience of fishing communities. Expanding female labour force participation is fundamental for achieving gender equality and is also essential for sustainable economic growth and community development in coastal regions.

CHAPTER VII

WORK PARTICIPATION OF FISHERWOMEN: MAJOR CONSTRAINTS

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- 7.1 Introduction
 - 7.2 Constraints for Work Participation of Fisher Women
 - 7.3. Conclusion
-

CHAPTER VII

WORK PARTICIPATION OF FISHERWOMEN: MAJOR CONSTRAINTS

7.1. Introduction

This chapter explores the various constraints faced by fisherwomen in their work participation. The participation of women in the fisheries sector has long been a significant yet underappreciated component of coastal and rural economies. Fisherwomen contribute substantially to the fishing industry, engaging in various activities ranging from pre-harvest to post-harvest operations. Their participation is often constrained by multiple factors that influence their work environment and overall job satisfaction.

Fisherwomen face numerous barriers that limit their participation in the workforce. These constraints include socio-cultural factors, economic barriers and limited access to resources and training. Gender-based discrimination and traditional gender roles often restrict the involvement of women in certain types of work or limit their access to better-paying and more secure jobs within the fishing industry (Harper et al., 2013). Economic constraints such as lack of capital, inadequate access to credit, and poor market linkages further hinder their ability to participate effectively in the fisheries sector (Kleiber et al., 2015). The work conditions of fisherwomen are typically harsh and demanding. They often engage in labour-intensive tasks under precarious conditions, with limited access to safety equipment and health services. The nature of their work, which includes handling heavy loads, exposure to the elements, and long hours, worsens health issues and increases the risk of occupational injuries (FAO, 2016). The lack of formal employment contracts and social security benefits leaves fisher women vulnerable to exploitation and financial instability. For the analysis in this chapter, statistical tools such as cross-tabulation and Chi-square tests have been used.

7.2. Constraints for Work Participation of Fisher Women

The involvement of women in the fisheries sector is essential for the economic stability and sustainability of many coastal communities. Fisherwomen often encounter a range of constraints that impede their full participation in this sector.

These constraints include socio-cultural, economic and institutional barriers that limit their opportunities and impact their overall effectiveness in their roles.

7.2.1.Socio-Cultural Constraints

One of the primary barriers to the participation of fisherwomen in the fisheries sector is socio-cultural norms and gender roles. In many coastal communities, traditional gender roles dictate that women are primarily responsible for domestic tasks and caregiving. These notions limit the time and energy they can devote to fishing-related activities (Kleiber & Vincent, 2015). Societal expectations and prejudices can restrict the access of women to certain types of work within the fisheries sector, often relegating them to lower-status and lower-paying positions (Harper et al., 2013).

Table 7.1
Demographic Profile of Non-Employed Women

	Variables	Frequency	Per cent
Nature of Family	Joint	56	21.4
	Nuclear	206	78.6
Caste	General	1	.4
	OBC	255	97.3
	OEC	1	.4
	SC	5	1.9
Marital Status	Married	242	92.4
	Separated	5	1.9
	Widowed	15	5.7
Educational Qualification of Father	Illiterate	21	8.0
	Up to 7 th	236	90.1
	High School	2	.8
	SSLC Passed	3	1.1
Educational Qualification of Respondents	Illiterate	7	2.7
	Up to 7 th	209	79.8
	High School	26	9.9
	SSLC Passed	15	5.7
	Plus two Passed	3	1.1
	Degree/Diploma	2	0.8
Educational Qualification of Mother	Illiterate	20	7.6
	Up to 7 th	239	91.2
	High School	3	1.1
	SSLC Passed	0	0.0
	Plus two Passed	0	0.0
	Degree/Diploma	0	0.0
Total		262	100.0

Source: Primary Survey, 2022

Table 7.1 narrates that a significant majority (78.6%) of these women come from nuclear families, where domestic responsibilities can be more demanding due to the absence of extended family support. The table also shows that 92.4% of these women are married, which often correlates with increased household and caregiving duties, further limiting their ability to participate in any productive activities. The high percentage of women (97.3%) belonging to the OBC category suggests that social stratification and caste-based roles may also influence their opportunities. The educational qualification of almost 80 per cent of the non-employed members is only up to 7th standard and 90 to 91 per cent of their parents are low educated with 7th standard. Low educational attainment among non-employed women and their parents restricts access to skilled employment, reinforcing cycles of poverty and dependency. This limits the economic contribution of women and reduces overall household income and resilience.

Table 7.2

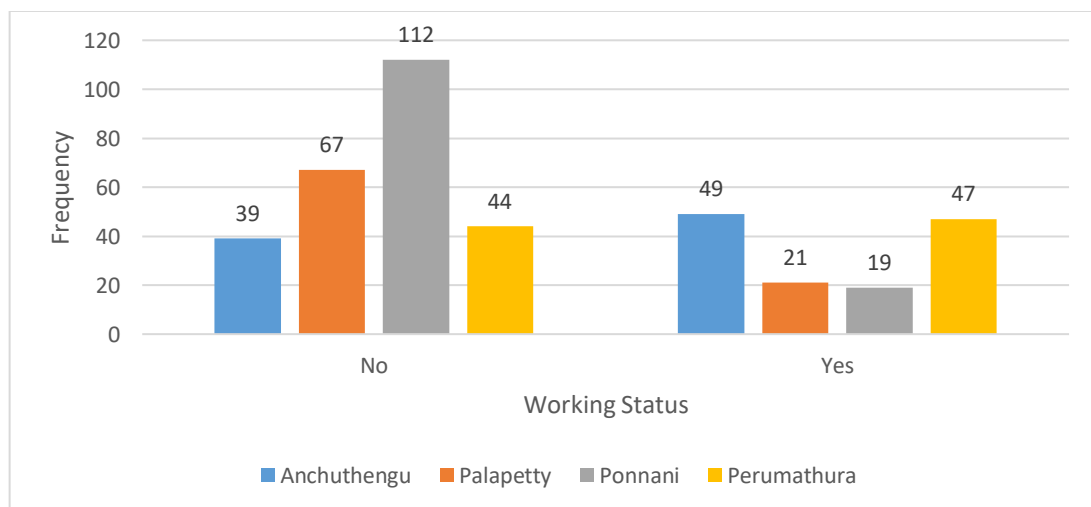
Work Participation Constraints among Fisherwomen: Respondents' Perspective

Statements		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Low Education	N	120	28	104	2	8
	%	45.8	10.7	39.7	0.8	3.1
Lack of jobs nearby	N	50	108	87	15	2
	%	19.1	41.2	33.2	5.7	.8
Not Interested	N	38	53	133	12	26
	%	14.5	20.2	50.8	4.6	9.9
Household Chores	N	25	60	120	42	15
	%	9.5	22.9	45.8	16.0	5.7
Tradition and Culture	N	24	55	80	78	25
	%	9.2	21.0	30.5	29.8	9.5
Religion	N	17	45	88	76	36
	%	6.5	17.2	33.6	29.0	13.7
Lack of traditional Dry Fish Business	N	39	42	74	90	17
	%	14.9	16.0	28.2	34.4	6.5

Source: Primary Survey, 2022

Table 7.2 indicates that a significant proportion of women (45.8%) strongly disagree that low education is a constraint, while 39.7% are neutral on this constraint. It indicates mixed perceptions regarding the impact of education on their participation. Lack of job opportunities nearby is viewed as a constraint with 41.2% disagreeing and 33.2% remaining neutral. A notable 50.8% are neutral regarding interest in participating, suggesting uncertainty or resignation from their current roles. Household chores are perceived as a constraint by women, with 16.0% agreeing and 5.7% strongly agreeing. It emphasises the impact of domestic responsibilities. Tradition and culture are also significant, with 29.8% agreeing and 9.5% strongly agreeing that these factors limit their participation. Religion is considered a constraint by 29.0% of respondents who agree and 13.7% who strongly agree. The lack of traditional dry fish business opportunities is highlighted as a constraint by 34.4% of respondents who agree and 6.5% who strongly agree. It emphasises the need for more traditional business opportunities within the sector. The result highlights that domestic responsibilities, cultural norms and limited traditional business avenues significantly hinder the economic engagement of fisherwomen. This underutilisation of female labour reduces household income potential and overall community productivity.

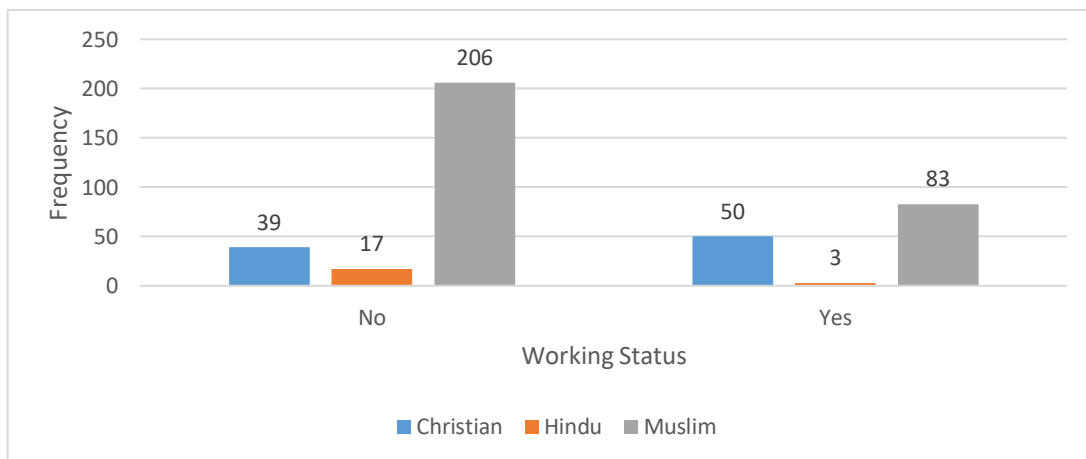
Figure 7.1 Region and Working Status



Source: Primary Survey, 2022

Figure 7.1 presents the region-wise working status of fisherwomen. Palapetty and Ponnani exhibit notably high percentages of non-working women with 76.1% and 85.5% respectively. Anchuthengu and Perumathura show lower proportions of non-working women, with 44.3% and 48.4% respectively. The proportion of working women is higher in Perumathura compared to other locations, with 51.6% of women reporting employment. This is in contrast to Ponnani, where only 14.5% of women are employed. It reveals significant disparities in the working status of fisherwomen across different locations. These disparities are influenced by various factors including economic opportunities, availability of fisheries resources and socio-cultural norms prevalent in each location. Regions with strong adherence to traditional gender roles may exhibit higher percentages of non-working women due to limited opportunities for female employment outside the household (Kleiber & Vincent 2015). The regional disparities in the work participation of fisherwomen reflect unequal access to economic opportunities and gendered limitations in the labour market. These results imply that areas with higher female employment are likely to experience greater household income diversification and community-level economic stability. At the same time, regions with low female employment may face underutilisation of human capital, reinforcing cycles of poverty and economic dependence.

Figure 7.2 Religion and Working Status



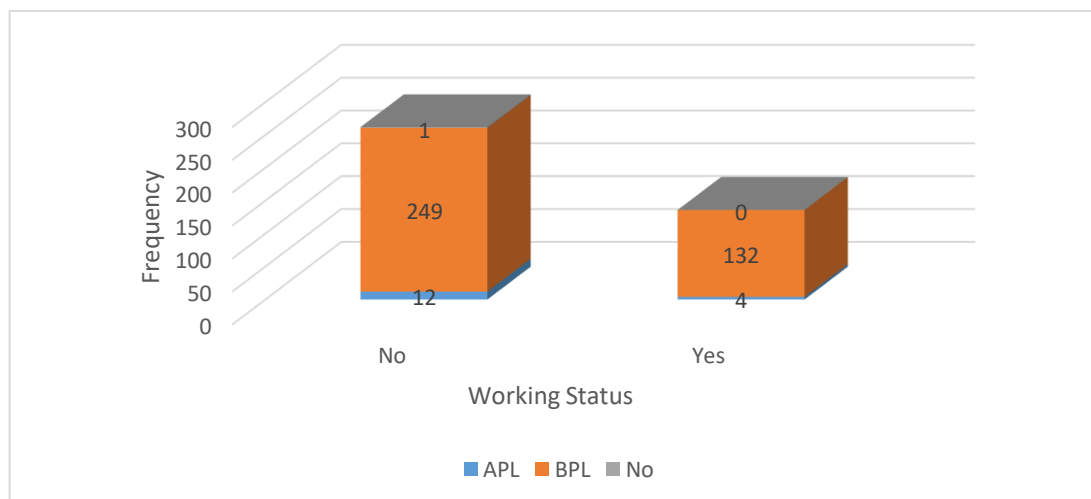
Source: Primary Survey, 2023

Figure 7.2 shows that the Hindu fisherwomen (out of a total of 20) exhibit the highest percentage of non-working individuals with 85.0%. This is in contrast to Christian and Muslim fisherwomen, where 43.8% and 71.3% respectively are not working. Christian fisher women show the highest proportion of employed individuals with 56.2% reported as working. This suggests that religious affiliation may play a role in shaping employment patterns within this demographic group. Higher employment among Christian fisherwomen indicates greater economic engagement and possibly more progressive gender norms. It may lead to improved household income and socio-economic resilience. The low participation among Hindu and Muslim fisherwomen may contribute to economic dependency and reduced financial autonomy for women in those communities.

7.2.2. Economic Constraints

Economic barriers also play a significant role in limiting the participation of fisherwomen in economic activities. Lack of access to financial resources is a major constraint. Women often have less access to credit and financial services than men, which limits their ability to invest in necessary fishing equipment and technology (Weeratunge et al., 2010). Fisherwomen frequently face challenges in accessing markets to sell their products, which can be exacerbated by inadequate infrastructure and transportation issues (FAO, 2016).

Figure 7.3 Ration Card Category and Working Status



Source: Primary Survey, 2022

Figure 7.3 presents the distribution of working status among fisher women based on their Ration card category. The data indicates notable disparities in working status across different card categories among fisherwomen. Fisherwomen classified under the APL category show a higher percentage (75%) of non-working individuals. This suggests potential challenges in accessing employment opportunities or financial resources among this socio-economic group. Fisherwomen classified under the BPL category exhibit a comparatively lower percentage (65%) of non-working individuals. The result suggests that while socio-economic status may influence employment opportunities for fisherwomen, other factors likely play a more prominent role. Economic barriers, such as limited access to financial resources and challenges in accessing markets, emerge as significant constraints limiting the participation of fisherwomen in the workforce.

Table 7.3

Working Status by Monthly Family Income and Expenditure

			Working Status		Total	Chi-Square result (pdf)
			Not Working	Employed		
Monthly Family Income (in Rs.)	0-10000	N	230	117	347	8.949 (3) P=0.030
		%	87.8	86.0	87.2	
	10000-20000	N	15	13	28	
		%	5.7	9.6	7.0	
	20000-30000	N	6	6	12	
		%	2.3	4.4	3.0	
	Above 30000	N	11	0	11	
		%	4.2	0.0	2.8	
Average Income			7525.95	7549.26	7533.92	
Monthly Family Expenditure	0-10000	N	214	104	318	24.839 (3) P=0.000
		%	81.7	76.5	79.9	
	10000-20000	N	21	30	51	
		%	8.0	22.1	12.8	
	20000-30000	N	8	2	10	
		%	3.1	1.5	2.5	
	Above 30000	N	19	0	19	
		%	7.3	0.0	4.8	
Total			262	136	398	
			100.0	100.0	100.0	
Average Expenditure			11093.53	9007.35	10380.7	

Source: Primary Survey, 2023

Table 7.3 presents the relationship between the working status of fisherwomen and their household's monthly income and expenditure. The data reveal that a majority of both employed (86.0%) and non-working women (87.8%) belong to households earning below Rs10,000 per month. Similarly, only 4.2% not employed respondents reported monthly income above Rs 30,000, indicating a potential income ceiling for fisherwomen in this context. In terms of expenditure, employed women's households report a lower average monthly expenditure (Rs 9007.35) compared to non-working women (Rs 11093.53), possibly indicating more prudent spending or limited resources despite employment. A chi-square test was conducted to examine this association. The results indicate a significant association between monthly family income and working status, $\chi^2 (3, N = 398) = 8.95, p = .030$ It suggests that employment status is related to variations in income. Likewise, a stronger significant relationship was observed between monthly family expenditure and working status, $\chi^2 (3, N = 398) = 24.84, p < .001$.

The findings suggest that most fisherwomen, regardless of employment status, belong to low-income households with limited economic mobility. Employed women tend to have lower household expenditures, possibly reflecting financial constraints despite earning an income. These patterns highlight the need for policies that promote higher-paying and more secure employment opportunities for women in the fisheries sector.

Table 7.4
Working Status and Debt of Family

			Work Status		Total	Chi-Square result (df)
			Not Working	Employed		
Debt	No Debt	N	100	42	142	2.071(1) P=0.150
		%	38.2	30.9	35.7	
	Have Debt	N	162	94	256	
		%	61.8	69.1	64.3	
Total		N	262	136	398	
		%	100.0	100.0	100.0	

Source: Primary Survey, 2023

Table 7.4 presents the distribution of working status among fisher women based on the presence or absence of family debt. Fisherwomen from households without debt demonstrate a slightly higher percentage of non-working individuals (38.2%) compared to employed individuals (30.9%). The difference in percentages suggests a potential trend towards higher non-employment among households without debt. Fisherwomen from households with debt exhibit a slightly higher percentage of non-working individuals (61.8%) compared to employed individuals (69.1%). While the difference in percentages suggests a potential trend towards higher non-employment among households with debt. The Chi-Square test results indicate that this difference is not statistically significant. The lack of a significant association between family debt and working status suggests that while financial obligations may influence employment opportunities to some extent, other factors likely play a more prominent role.

7.2.3. Health and Safety Constraints

The health and safety of fisherwomen are a major concern that influence their work status. The physically demanding nature of their work combined with inadequate access to healthcare and safety measures, exposes them to a higher risk of injuries and health problems. The lack of protective equipment and the need to work in hazardous conditions further intensify these risks (FAO, 2016). Addressing health and safety issues through better infrastructure, access to healthcare, and provision of safety equipment is essential to improving the work conditions of fisherwomen.

Table 7.5 Health Status and Work Participation

Health Status			Work Participation		Total	Chi-Square result (df)
			Not Working	Employed		
Affected by any disease	No	N	180	72	252	9.575 (1) P=0.002
		%	68.7	52.9	63.3	
	Yes	N	82	64	146	
		%	31.3	47.1	36.7	
Total			262	136	398	

Source: Primary Survey, 2022

Table 7.5 presents a significant association between health status and work participation among fisherwomen. Fisherwomen who report not being affected by any disease demonstrate a higher percentage of non-working individuals (68.7%) compared to employed individuals (52.9%). Fisherwomen who report being affected by any disease exhibit a lower percentage of non-working individuals (31.3%) compared to employed individuals (47.1%). The Chi-Square test results confirm that this difference is statistically significant ($\chi^2 = 9.575$, $df = 1$, $p = 0.002$). It indicates that health status is a significant factor influencing work participation among fisherwomen. The significant association between health status and work participation highlights the importance of addressing health concerns among fisherwomen to improve their employment opportunities and overall well-being.

The results indicate that poor health significantly reduces the ability of women to participate in the workforce and leading to lost income and increased household economic vulnerability. Improved healthcare access and preventive interventions could enhance work participation rates among fisherwomen. Investing in health infrastructure for coastal communities may thus contribute to both economic empowerment and poverty reduction.

7.2.4 Institutional Constraints

Institutional constraints refer to systemic barriers embedded within policies, structures, and governance systems that hinder the active participation of women in the fisheries sector. These constraints are often evident in the form of gender-blind policies, inadequate representation, and limited access to institutional support. The marginalisation of fisherwomen in decision-making bodies weakens their influence over policies that directly impact their livelihoods and work environments (Kleiber et al. 2015). A lack of inclusive governance further compounds disparities, making it difficult for women to access resources, technology and markets. These structural barriers are often reinforced by limited educational and skill-building opportunities, which restrict the ability of women to adapt to modern practices and assume leadership roles. Providing targeted education and training programmes for

fisherwomen could help to bridge this gap and empower them to take on more significant roles within the fisheries sector.

Table 7.6
General Awareness and Work Participation

Aware on			Work Participation		Total	Chi-Square result (df)
			Not Working	Employed		
Legal Measures	No	N	103	21	124	23.786 (1) P=0.000
		%	39.3	15.4	31.2	
	Yes	N	159	115	274	
		%	60.7	84.6	68.8	
Family welfare measures	No	N	109	25	134	21.615 (1) P=0.000
		%	41.6	18.4	33.7	
	Yes	N	153	111	264	
		%	58.4	81.6	66.3	
Welfare measures of the women	No	N	102	24	126	18.746 (1) P=0.000
		%	38.9	17.6	31.7	
	Yes	N	160	112	272	
		%	61.1	82.4	68.3	
Total			262	136	398	

Source: Primary Survey, 2022

Table 7.6 displays that there is a significant association between general awareness of various measures and work participation among fisherwomen. Among those unaware of legal measures, a greater proportion (39.3%) are found to be non-working, whereas only 15.4% of the employed lack such awareness. 84.6% of the employed are aware of legal measures compared to 60.7% of non-working women. This association is statistically significant as confirmed by the Chi-Square test ($\chi^2 = 23.786$, $df = 1$, $p = 0.000$). Concerning family welfare measures, non-working fisherwomen comprise 41.6% of those who are unaware, while only 18.4% of the employed fall into this category. 81.6% of employed women are aware of these measures, compared to 58.4% of the non-working group. The statistical significance of this difference is supported by a Chi-Square value of 21.615 ($df = 1$, $p = 0.000$). In terms of welfare measures specifically targeted at women, 38.9% of the non-working

respondents are unaware of such provisions compared to only 17.6% among the employed. A substantial 82.4% of the employed are informed about these measures, as opposed to 61.1% of their non-working counterparts. This difference is also statistically significant ($\chi^2 = 18.746$, $df = 1$, $p = 0.000$).

The significant associations between general awareness of legal measures, family welfare measures and welfare measures for women highlight the importance of awareness in shaping employment opportunities among fisherwomen. Access to information and awareness of various measures contribute to empowering fisherwomen and enabling them to make informed decisions regarding their work participation. These findings underline the importance of targeted awareness-raising initiatives and outreach programmes aimed at informing fisherwomen about their rights, available support systems and welfare measures.

Table 7.7
Scheme Utilisation and Work Participation

Utilization of any Scheme			Work Participation		Total	Chi-Square result (df)
			Not Working	Employed		
Use of any scheme	No	N	161	75	236	1.474 (1) P=0.225
		%	61.5	55.1	59.3	
	Yes	N	101	61	162	
		%	38.5	44.9	40.7	
Total			262	136	398	

Source: Primary Survey, 2022

Table 7.7 illustrates the relationship between the utilisation of any government scheme and work participation among fisherwomen. Although a slightly higher proportion of employed women (44.9%) reported utilising at least one scheme compared to non-working women (38.5%). The Chi-Square test result, $\chi^2 (1, N = 398) = 1.474$, $p = .225$, indicates that the association is not statistically significant. This suggests that there is no strong evidence of a direct relationship between scheme utilisation and employment status among the surveyed fisherwomen.

The lack of a significant association implies that existing schemes may not be effectively translating into improved work participation for fisherwomen. This could point to issues such as poor scheme design, lack of targeted implementation and inadequate awareness and accessibility. Strengthening the relevance and outreach of welfare schemes could enhance economic empowerment and employment among fisherwomen.

7.2.5. Other Constraints

In addition to the major structural and institutional barriers explored in this chapter, several other subtle yet impactful constraints also influence the work participation of fisherwomen. These constraints play an important role in shaping women's ability to engage in productive work. Factors such as limited skill development opportunities, unsupportive family attitudes, inadequate remuneration and the absence of familial encouragement often discourage women from entering or remaining in the workforce.

Table 7.8
Skills and Work Status

Perceptions on Skill		Work Status		Total
		Not Working	Employed	
Very Low	N	71	25	96
	%	27.1	18.4	24.1
Low	N	58	20	78
	%	22.1	14.7	19.6
Moderate	N	68	47	115
	%	26.0	34.6	28.9
High	N	53	33	86
	%	20.2	24.3	21.6
Very High	N	12	11	23
	%	4.6	8.1	5.8
Total	N	262	136	398
	%	100.0	100.0	100.0
Average		2.5305	2.8897	2.6533
Chi-Square Result		Value=10.219, df=4, p=0.000		

Source: Primary Survey, 2022

Table 7.8 displays the distribution of work status among fisher women based on their perception of their skill level. The result indicates a significant association between perceived skill level and work status among fisherwomen. Fisherwomen who perceive their skill level as very low demonstrate a higher percentage of non-working individuals (27.1%) compared to employed individuals (18.4%). Fisherwomen who observe their skill level as low exhibit a higher percentage of non-working individuals (22.1%) compared to employed individuals (14.7%). Fisherwomen who recognise their skill level as moderate show a higher percentage of employed individuals (34.6%) compared to non-working individuals (26.0%). Fisherwomen who identify their skill level as high demonstrate a slightly lower percentage of non-working individuals (20.2%) compared to employed individuals (24.3%). Fisherwomen who perceive their skill level as very high exhibit a slightly higher percentage of employed individuals (8.1%) compared to non-working individuals (4.6%). The Chi-Square test result ($\chi^2 = 10.219$, $df = 4$, $p = 0.000$) indicates a statistically significant association between skill perception and work status among fisherwomen. The significant association between perceived skill level and work status highlights the importance of skill development and empowerment initiatives among fisherwomen. Perception of higher skill levels appears to correlate with increased employment opportunities, suggesting that enhancing skill levels can improve the employability and socio-economic outcomes of fisherwomen. Investing in skill development programmes tailored to the needs of fisherwomen can empower them to access higher-paying jobs, participate more effectively in the fisheries sector, and contribute to household and community development.

Table 7.9

Family Attitude and Work Status

Family Attitude		Working Status		Total
		Not Working	Employed	
Discouraging	N	90	26	116
	%	34.4	19.1	29.1
Encouraging	N	172	110	282
	%	65.6	80.9	70.9
Total	N	262	136	398
	%	100.0	100.0	100.0
Chi-Square Result		Value = 10.060, df = 1, p =0.002		

Source: Primary Survey, 2022

Table 7.9 depicts the distribution of the working status of fisherwomen based on their family’s attitude towards their jobs. Among fisher women whose families hold a discouraging attitude towards their jobs, 34.4% are not working, while 19.1% are employed. Among fisher women whose families hold an encouraging attitude towards their job, 65.6% are not working, and 80.9% are employed. The significant difference in working status between fisherwomen with discouraging family attitudes and those with encouraging family attitudes suggests the considerable impact of familial support and encouragement on employment outcomes. The Chi-Square test result ($\chi^2 = 10.060$, $df = 1$, $p = 0.002$) indicates a statistically significant association between family attitude and the work status of fisherwomen. Fisherwomen who perceive their families as supportive of their employment are more likely to be employed, indicating the importance of family dynamics in shaping women’s participation in the workforce. Addressing cultural and social norms that influence family attitudes towards women's employment can contribute to creating a more supportive environment for fisherwomen seeking employment opportunities.

Table 7.10

Patterns of Job Discontinuation and Female Work Participation

Reasons		Job							Total
		Fishing selling	Govt.	Gulf	Kudumb-ashree	Private	Self-employment	Thozilurappu	
Aging	N	0	0	0	0	0	1	0	1
	%	0.0	0.0	0.0	0.0	0.0	50.0	0.0	5.0
Coir business now	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
Distance	N	0	0	0	0	0	0	1	1
	%	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5.0
Job stops by less collection	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
Less salary	N	0	0	0	0	2	0	0	2
	%	0.0	0.0	0.0	0.0	20.0	0.0	0.0	10.0
	N	0	0	0	1	0	0	0	1

Work Participation of Fisherwomen: Major Constraints

Less working facilities	%	0.0	0.0	0.0	100.0	0.0	0.0	0.0	5.0
Health problem	N	1	0	0	0	0	0	0	1
	%	33.3	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Marriage	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
No coir business	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
No family support	N	2	0	0	0	2	1	0	5
	%	66.7	0.0	0.0	0.0	20.0	50.0	0.0	25.0
No family support and Less salary	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
No such coir business	N	0	0	0	0	1	0	0	1
	%	0.0	0.0	0.0	0.0	10.0	0.0	0.0	5.0
Rearing of children	N	0	1	0	0	0	0	0	1
	%	0.0	50.0	0.0	0.0	0.0	0.0	0.0	5.0
Retired	N	0	1	0	0	0	0	0	1
	%	0.0	50.0	0.0	0.0	0.0	0.0	0.0	5.0
Visa expiry	N	0	0	1	0	0	0	0	1
	%	0.0	0.0	100.0	0.0	0.0	0.0	0.0	5.0
Total	N	3	2	1	1	10	2	1	20
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Primary Survey, 2022

Table 7.10 displays the reasons prompting fisherwomen to quit their jobs across various occupational sectors. Among the 20 individuals who transitioned out of employment, diverse factors contributed to their decisions. Noteworthy reasons include ageing, with one participant attributing their departure to this cause. Shifts in economic opportunities were evident, as one individual opted for coir business, while another mentioned job cessation due to reduced collection. Financial concerns were also prevalent, with two individuals citing inadequate salary as a primary motive for quitting. Challenges such as distance from work, health issues, marriage, lack of family support, and visa expiration emerged as significant factors influencing employment decisions. Five individuals identified insufficient family support as a key reason for leaving their jobs. It emphasises the crucial role of familial dynamics in

shaping work trajectories. The reasons behind job discontinuation among fisher women reflect broader economic vulnerabilities. Factors like inadequate salary, health issues and lack of family support highlight the risky nature of informal employment and the absence of social safety nets.

Table 7.11

Perspectives of Fisher Women on Work Participation

Statement		Frequency	Per cent
Work participation of women depends on parental education	No	209	52.5
	Yes	189	47.5
Work participation of women depends on the husband's education	No	203	51.0
	Yes	195	49.0
Work participation of women depends on parental economic condition	No	128	32.2
	Yes	270	67.8
Work participation of women depends on the husband's economic condition	No	137	34.4
	Yes	261	65.6
Total		398	100.0

Source: Primary Survey, 2022

Table 7.11 presents the perspectives of women on the socio-economic factors influencing work participation. A majority believe that the economic conditions of both parents (67.8%) and husbands (65.6%) play a more significant role than the educational background in determining their work involvement. In contrast, views were more evenly divided regarding the influence of parental (47.5%) and husband's education (49%). The data indicates that economic compulsion, rather than empowerment through education, is a primary driver of work participation among fisherwomen. This reflects the vulnerability of households where women enter the labour market as a survival strategy. Strengthening household incomes and improving women's access to economic resources could transform work participation from necessity-driven to opportunity-driven, fostering more sustainable livelihoods.

7.3. Conclusion

The analysis of constraints affecting work participation among fisher women reveals an interconnectedness of socio-cultural, economic, health-related and institutional barriers. Traditional gender roles and societal expectations continue to limit the mobility of women and restrict their engagement in economically productive activities. Women are often confined to lower-status and informal jobs within the fisheries sector. It reflects deeply rooted gender biases. Economic constraints further hinder their capacity to engage in or sustain employment. Health issues, coupled with the physically demanding nature of the work and inadequate healthcare access, intensify these challenges and discourage consistent work participation. The findings also highlight a lack of awareness about available welfare measures, which, if addressed, could significantly improve their work prospects.

Institutional shortcomings, including gender-blind policies and underrepresentation of women in decision-making roles, further marginalise fisherwomen in the sector. The limited access to education and vocational training reduces their chances of acquiring necessary skills, thereby restricting their ability to compete in an evolving labour market. Despite these challenges, the chapter emphasises the empowering impact of employment for women, especially in enhancing self-worth, household decision-making, and economic resilience. Addressing these barriers through designated policy action plans, gender-sensitive program design and improved access to resources and training is crucial. Promoting the work participation of fisherwomen is a step toward their empowerment and essential for achieving broader goals of gender equity and inclusive development within fishing communities.

CHAPTER VIII

GENDER DISPARITY: EXTENT AND ROLE OF WORK PARTICIPATION

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- 8.1 Introduction
 - 8.2. Hypotheses
 - 8.3. Extent of Gender Disparity
 - 8.4. Influence of Work Participation on Gender Disparity
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CHAPTER VIII

GENDER DISPARITY: EXTENT AND ROLE OF WORK PARTICIPATION

8.1 Introduction

Gender disparity remains a universal and complex global concern, exhibiting in various forms across different sectors and societies. In the context of the labour market, gender disparity is predominantly taken care of, affecting employment opportunities, wage levels, job security and working conditions for women. The International Labour Organisation (2020) states that, despite progress in many areas, women continue to encounter significant barriers that impede their full and equitable participation in the workforce. These barriers hinder economic growth and retain social inequalities. Work participation plays a crucial role in mitigating gender disparities by providing women with financial independence and enhancing their social status. Equitable and supportive work environments are essential for improving women's participation and satisfaction in the workforce (Kabeer, 2012). The role of work participation in addressing gender disparity cannot be overstated. The conditions under which women work and the support they receive significantly influence the extent to which these benefits are realised. This chapter aims to explore how women's participation in the workforce engages with gender disparity within fishing communities, with a special focus on fisherwomen.

Gender disparity in India and Kerala reflects deep-rooted social, cultural and economic inequalities. It limits the opportunities and outcomes of women. Kerala showcases better indicators in the socio-economic lives compared to the national average, but a significant gender gap persists in economic participation and professional education. Combined efforts are required from policymakers, communities and individuals to promote gender equality and empower women across all sectors. This chapter seeks to uncover these dynamics within the fishing communities and expose the interplay between work participation and gender disparity. This chapter highlights the sequential occurrence of gender disparity and proposes potential pathways for promoting gender equity through a detailed examination of both the constraints and conditions affecting fisherwomen. The statistical tests used in this chapter include cross-tabulation, the Chi-square test and

regression analysis. In the regression analysis, the following two hypotheses were formulated.

8.2.Hypotheses

1. There is no significant relationship between work status and socio-economic empowerment and support among fisherfolk.
2. Employment status does not significantly affect socio-economic empowerment among male and female fisherfolk differently.

8.3.Extent of Gender Disparity

Gender disparity in India remains a serious challenge, despite notable advancements in various sectors. This disparity is evident across multiple dimensions such as economic participation, educational attainment, health and political empowerment. Women in India face significant barriers to economic participation. The labour force participation rate for women is substantially lower than that of men. Only about 20.8% of Indian women participate in the labour force compared to 76.1% of men (World Bank, 2022). This gap is attributed to socio-cultural norms, lack of supportive workplace policies and limited access to resources and opportunities. While there has been progress in bridging the gender gap in primary education, disparities persist at higher levels of education. The Gross Enrollment Ratio (GER) for girls in secondary and tertiary education is lower compared to boys. The dropout rate for girls increases significantly at the secondary level, largely due to socio-economic factors and early marriages (Ministry of Education, 2022).

Gender disparity is highly visible in health outcomes. Women in India experience higher rates of malnutrition, anemia and maternal mortality compared to men. The maternal mortality ratio (MMR) in India is 103 per 100,000 live births, with considerable variation across states (NFHS, 2019). Access to healthcare services and reproductive health facilities remains inadequate for many women. The representation of women in political institutions is limited. In 2023, women held only 14% of the seats in the Parliament (Inter-Parliamentary Union, 2023). Although the 73rd and 74th constitutional amendments mandate 33% reservation for women in local governance, their effective participation and decision-making power are often hindered by patriarchal norms and lack of training.

Kerala, often highlighted for its progressive social indicators, presents a contrasting picture in terms of gender disparity when compared to the national average. Despite achieving near-universal literacy and relatively better health outcomes, gender disparities still exist. The female labour force participation rate in Kerala is slightly higher than the national average but remains low at around 22.8% (NSSO, 2021). Women in Kerala are more likely to be employed in the informal sector, with limited access to formal employment opportunities and social security benefits. Kerala boasts a high literacy rate for both men and women, with female literacy at 92% compared to the national average of 70.3% (Census of India, 2011). However, there is a significant gender gap in professional and technical education. Men are more likely to pursue higher education in Science, Technology, Engineering and Mathematics (STEM) fields, whereas women predominantly enrol in arts and humanities. Kerala has better health indicators compared to other Indian states, with a low maternal mortality rate of 42 per 100,000 live births (NFHS, 2019). However, issues such as domestic violence and mental health disparities are prevalent. 15% of women have reported experiencing domestic violence, highlighting the underlying socio-cultural challenges (Kerala State Planning Board, 2020). Political representation of women in Kerala is marginally better than the national average, with women holding 10% of seats in the state legislature (Election Commission of India, 2021). Despite this, the influence of women in political decision-making remains limited.

8.3.1. Gender Disparity among Fisherfolk

Fisherwomen in Kerala face distinct challenges that reflect broader patterns of gender inequality. In Kerala, fisherwomen are mainly involved in fish vending, processing, and small-scale aquaculture. Fisherwomen contribute significantly to the local economy, their earnings are often lower than those of men engaged in fishing activities (Kerala State Planning Board, 2020). This disparity is partly due to the informal nature of their work and limited access to higher-value market segments. Educational opportunities for fisherwomen in Kerala are relatively better compared to the national average, yet significant gaps remain. The Kerala State Planning Board (2020) notes that lower levels of education among fisherwomen limit their opportunities for higher-paying jobs and economic mobility. Fisherwomen in Kerala often face barriers in accessing financial services such as loans and credit, which are

necessary for expanding their businesses and improving their livelihoods. Initiatives like the Kudumbashree mission have made strides in providing financial support and training to women, but more targeted efforts are needed to reach fisherwomen effectively (Sahayi, 2017). Health issues among fisherwomen in Kerala are worsened by inadequate access to healthcare and social services. The coastal communities often have limited healthcare facilities and women bear the brunt of this deficiency. Issues such as anemia, reproductive health problems and mental health disorders are prevalent among fisherwomen (Rajeev, 2016). While Kerala has seen improvements in women’s political participation at the local level, the representation of fisherwomen in decision-making bodies remains low. Efforts to increase the involvement of women in fishery cooperatives and local governance are essential to address their specific needs and challenges (CMFRI, 2019). Fisherwomen continue to face significant disparities in economic participation, access to resources, health and social status.

Table 8.1
Perceptions of Gender-Based Wage and Employment Discrimination among Fisherfolk

Response	Statements					
	Higher wage is given to men only		Employees prefer men only		Some jobs can be done by men only	
	N	%	N	%	N	%
Strongly Disagree	12	3.0	25	6.3	2	.5
Disagree	19	4.8	20	5.0	18	4.5
Neutral	52	13.1	60	15.1	74	18.6
Agree	215	54.0	215	54.0	201	50.5
Strongly Agree	100	25.1	78	19.6	103	25.9
Total	398	100.0	398	100.0	398	100.0

Source: Primary Survey, 2022

Table 8.1 presents respondents’ perceptions of gender-based wage inequality, hiring bias, and occupational stereotypes within the fisherfolk community. The results clearly indicate that gender-based discrimination in employment and wages is widely perceived and socially recognised. A substantial majority of respondents either agree or strongly agree with the statements that higher wages are given to men, that employers prefer men for employment, and that certain jobs are suitable only for men.

These findings suggest that gender bias is not limited to individual experiences but is embedded in broader community perceptions regarding labour market practices.

With regard to wage inequality, a large proportion of respondents perceive that men receive higher wages than women for similar or comparable work. This perception reflects the persistence of gender-based wage gaps within the fisheries sector and supports the argument that women's work is undervalued, particularly in informal and post-harvest activities. Such perceptions are consistent with labour market segmentation and gendered division of labour theories, which emphasise that women are often concentrated in lower-paid segments of the labour market and face structural barriers to equal remuneration.

The strong agreement with the statement that employers prefer men for employment highlights the prevalence of gender bias in hiring practices. This finding indicates that women face discriminatory barriers at the point of labour market entry, limiting their access to employment opportunities even before issues of wages and working conditions arise. The widespread belief that certain jobs can be done only by men further reveals the persistence of traditional gender stereotypes within fishing communities. These stereotypes restrict women's access to a broader range of occupations and confine them to a narrow set of socially acceptable roles, particularly in post-harvest and informal activities. This perception not only limits women's economic opportunities but also supports gender norms that justify unequal treatment in wages and employment. The findings, therefore, reveal that gender disparity is sustained not only by economic factors but also by deeply embedded cultural beliefs and social expectations.

Table 8.2
Perceived Gender-Based Preferential Treatment in Household Resources and Decisions

Statements		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Preferential treatment is there in food	N	18	22	31	210	117	398
	%	4.5	5.5	7.8	52.8	29.4	100.0
Preferential treatment in Education	N	77	35	41	197	48	398
	%	19.3	8.8	10.3	49.5	12.1	100.0
Preferential treatment in ownership of assets	N	34	34	50	195	85	398
	%	8.5	8.5	12.6	49.0	21.4	100.0
Preferential treatment in decision-making	N	29	50	87	161	71	398
	%	7.3	12.6	21.9	40.5	17.8	100.0
Preferential treatment in family functions	N	31	54	114	131	68	398
	%	7.8	13.6	28.6	32.9	17.1	100.0

Source: Primary Survey, 2022

Table 8.2 presents respondents' perceptions of preferential treatment within the family across key domains, including food distribution, education, asset ownership, decision-making, and participation in family functions. The results show that intra-household gender bias is widely perceived across multiple aspects of family life, indicating that gender inequality is deeply embedded in everyday household practices within fishing communities.

With regard to food distribution, an overwhelming majority of respondents perceive preferential treatment. A total of 82.2 per cent of respondents (52.8 per cent agree and 29.4 per cent strongly agree) report that preferential treatment exists in the allocation of food within the family. Only 10.0 per cent (4.5 per cent strongly disagree and 5.5 per cent disagree) deny the presence of such bias. This pattern highlights persistent gender inequalities in the allocation of basic household resources, reflecting traditional norms that prioritise male members. In the case of education, a substantial proportion of respondents also perceive preferential treatment. About 61.6 per cent

(49.5 per cent agree and 12.1 per cent strongly agree) believe that preferential treatment exists in educational opportunities within the family. In contrast, 28.1 per cent (19.3 per cent strongly disagree and 8.8 per cent disagree) do not perceive such bias, while 10.3 per cent remain neutral.

Perceptions of preferential treatment in asset ownership are similarly pronounced. A total of 70.4 per cent of respondents (49.0 per cent agree and 21.4 per cent strongly agree) report gender-based preferential treatment in asset ownership. Only 17.0 per cent (8.5 per cent strongly disagree and 8.5 per cent disagree) reject this perception, while 12.6 per cent remain neutral. This finding points to strong gender disparities in control over household assets, which have important implications for women's economic security and bargaining power.

With respect to decision-making within the household, 58.3 per cent of respondents (40.5 per cent agree and 17.8 per cent strongly agree) perceive preferential treatment, indicating that men are more likely to dominate household decision-making processes. A smaller proportion, 19.9 per cent (7.3 per cent strongly disagree and 12.6 per cent disagree), do not perceive such bias, while 21.9 per cent remain neutral. This suggests that although gender bias in decision-making is widely recognised, there is variation across households in the extent of women's participation.

In the context of family functions, perceptions of preferential treatment are present but comparatively weaker. About 50.0 per cent of respondents (32.9 per cent agree and 17.1 per cent strongly agree) report preferential treatment, while 21.4 per cent (7.8 per cent strongly disagree and 13.6 per cent disagree) do not perceive such bias. A notably high proportion, 28.6 per cent, remain neutral, indicating greater diversity in social practices and possibly less visible or more context-specific forms of preferential treatment in social events.

The results reveal that preferential treatment in favour of men is most strongly perceived in food distribution and asset ownership, followed by education and decision-making, with relatively lower but still substantial levels observed in family functions. These intra-household inequalities limit women's access to essential

resources, weaken their bargaining power, and constrain their capabilities, thereby reinforcing broader patterns of gender disparity in work participation and socio-economic outcomes. The findings provide strong empirical support for the household bargaining and empowerment perspectives used in the study and highlight the importance of addressing gender bias within the family as part of broader efforts to reduce gender inequality in fishing communities.

Table 8.3
Perceptions of Respondents: Gender-Based Comparison

Statements	Female		Male	
	Mean	Std. Deviation	Mean	Std. Deviation
Decision-making power	3.2161	1.31588	3.2337	.60906
Respect in the family	3.5276	1.38287	3.4045	.77080
Respect in the society	3.4523	1.38414	3.3794	.77054
Participation in political activities	2.7437	1.49883	3.0829	.82203
Participation in social activities	3.3442	1.41763	3.3141	.76402
Societal status	3.1985	1.32912	3.3216	.71830
Freedom of mobility	3.1608	1.34456	3.3040	.71369
Control on asset	3.0402	1.42782	3.2161	.77981
Control on income	3.0804	1.43317	3.1960	.78832
Control of household amenities	3.1734	1.41336	3.2236	.73949
Special skills acquired	2.7286	1.41483	2.9950	.80925
Job opportunities nearby	2.7261	1.41879	3.0276	.83786
Religious restrictions	2.5879	1.37669	2.9472	.83060
Lack of dry fish business	3.1985	1.41894	3.3040	.76809
Restriction due to tradition and culture	2.7286	1.38605	2.9824	.79494
Family Supports	3.2940	1.40223	3.3342	.75875
Support from Society	3.2462	1.37252	3.3216	.73219
Knowledge about work	3.2588	1.36559	3.3291	.74759
Government Supports	3.0628	1.37944	3.1106	.71532
Depending others	3.1332	1.29126	3.2286	.59847
Household responsibilities	3.2513	1.36424	3.3015	.69872
Traditional attitudes	2.7412	1.39840	3.0201	.81212
Gender discrimination	2.6935	1.37319	2.9296	.79992
Overall Average	3.0690	1.3874	3.1960	0.7556

Source: Primary Survey, 2022

Table 8.3 displays that both genders report similar views on decision-making power. More clearly, females tend to have higher perceptions of respect within the family with a mean score of 3.5276 compared to 3.4045 for males. In terms of political participation, females report significantly lower involvement (mean score of 2.7437) compared to males (3.0829). It suggests gender disparities in political engagement. Women perceive more restrictions in their freedom of mobility (mean of 3.1608) and have less control over assets and income with lower mean scores compared to men. On skill acquisition and job opportunities, females report feeling more limited with mean scores of 2.7286 and 2.7261, respectively, indicating fewer opportunities for personal and professional growth.

These gender-based differences have important economic implications. The lower control over assets and income among females points to greater economic dependence and limited financial autonomy. The disparity in skill acquisition and job opportunities suggests the need for economic policies to address these barriers, such as promoting female entrepreneurship, access to education and skill development. The perception of traditional attitudes and gender discrimination highlights the importance of cultural and societal change in fostering gender equality.

Table 8.4
Perceptions of Respondents: Area Wise Gender Comparison

Statements	Anchuthengu		Palapetty		Ponnani		Perumathura	
	Male	Female	Male	Female	Male	Female	Male	Female
Decision-making power	3.32	3.75	3.30	3.03	3.15	2.63	3.21	3.71
Respect in the family	3.50	4.15	3.43	3.27	3.18	2.80	3.60	4.22
Respect in the society	3.51	3.98	3.34	3.23	3.16	2.76	3.60	4.15
Participation in political activities	3.10	3.22	3.16	2.50	3.09	2.43	2.98	2.98
Participation in social activities	3.38	4.10	3.24	2.99	3.15	2.47	3.57	4.22
Societal status	3.45	3.94	3.27	2.94	3.12	2.31	3.53	4.00

Gender Disparity: Extent and Role of Work Participation

Freedom of Mobility	3.44	4.10	3.24	2.91	3.14	2.32	3.47	3.70
Control on asset	3.20	3.93	3.27	2.70	3.14	2.14	3.29	3.80
Control on income	3.16	4.02	3.24	2.74	3.13	2.16	3.29	3.82
Control of household amenities	3.24	4.18	3.24	2.75	3.13	2.18	3.33	4.04
Special skills acquired	3.09	3.75	3.05	2.35	3.04	2.05	2.79	3.08
Job opportunities nearby	3.15	3.48	3.18	2.66	3.01	2.02	2.79	3.09
Religious restrictions	3.09	3.28	2.99	2.28	3.00	2.05	2.69	2.99
Lack of traditional dry fish business	3.44	4.06	3.22	2.90	3.06	2.19	3.60	4.11
Restriction due to tradition and culture	3.14	3.49	3.01	2.39	3.00	2.09	2.78	3.24
Family Supports	3.48	4.20	3.26	2.91	3.12	2.34	3.57	4.15
Support from society	3.45	4.15	3.25	2.89	3.12	2.28	3.55	4.11
Knowledge about work	3.47	4.32	3.26	2.89	3.11	2.21	3.58	4.11
Government supports	3.28	4.09	3.08	2.72	3.09	2.19	3.00	3.66
Depending others	3.34	4.02	3.18	2.81	3.10	2.24	3.35	3.88
Household responsibilities	3.41	4.22	3.23	2.89	3.12	2.33	3.53	4.00
Traditional attitudes	3.07	3.57	3.06	2.41	3.03	2.06	2.92	3.24
Gender discriminations	3.08	3.07	2.97	2.44	3.00	2.46	2.65	2.91
Overall Average	3.30	3.87	3.19	2.77	3.10	2.29	3.25	3.70

Source: Primary Survey, 2022

Table 8.4 presents mean scores for each statement, indicating the average perception of males and females in each location. There are differences in perceptions between genders across different places. In terms of decision-making power, females

generally perceive themselves as having higher decision-making power compared to males in Anchuthengu and Perumathura, while males perceive themselves as having higher decision-making power in Palapetty and Ponnani. When considering respect in the family and society, females tend to rate themselves higher than males in all four places. It indicates that they perceive themselves as receiving more respect compared to males. Males tend to rate themselves higher in terms of participation in political activities and control over assets and income. The table suggests variations in gender perceptions across different places. It highlights the influence of location on gender roles and attitudes. These differences could stem from various socio-cultural factors prevalent in each region, impacting how males and females perceive their roles and status within society.

The gender-based perception differences across locations suggest uneven empowerment and resource control. Women’s higher perceived decision-making and respect in some regions may enhance their contribution to local economic development. Male dominance in political participation and asset control may limit inclusive economic growth and gender-equitable policy outcomes.

Table 8.5
Perceptions of Respondents on
Special treatment to males: An Area-Wise Comparison

		Special treatment for males in the workplace					Total	Average
		Very Low	Low	Moderate	High	Very High		
Anchuthengu	N	5	8	9	17	10	49	3.3878
	%	10.2	16.3	18.4	34.7	20.4	100.0	
Palapetty	N	4	3	7	6	1	21	2.8571
	%	19.0	14.3	33.3	28.6	4.8	100.0	
Ponnani	N	9	3	3	3	1	19	2.1579
	%	47.4	15.8	15.8	15.8	5.3	100.0	
Perumathura	N	14	2	12	12	7	47	2.9149
	%	29.8	4.3	25.5	25.5	14.9	100.0	
Total	N	32	16	31	38	19	136	2.9706
	%	23.5	11.8	22.8	27.9	14.0	100.0	
Chi-Square Result		Value: 20.443, df: 12, p: 0.059						

Source: Primary Survey, 2022

Table 8.5 illustrates the frequency and percentage of respondents who perceive varying levels of special treatment towards males in their workplace. In Anchuthengu, the majority of respondents perceive either moderate or high levels of special treatment towards males, with 34.7% reporting high levels. In Palapetty, 28.6% of respondents perceive a high level of special treatment towards males. Ponnani and Perumathura exhibit a somewhat different trend, with fewer respondents perceiving high levels of special treatment towards males (15.8% and 25.5% respectively). The table indicates a considerable perception of special treatment towards males in the workplace, with 27.9% of respondents across all locations reporting high levels. There are variations across locations, suggesting that cultural and regional factors may influence these perceptions. The chi-square test result indicates that there is no statistically significant difference in perceptions of special treatment towards males across the four locations. The result provides an overall view of the perceptions of female respondents regarding special treatment to males in the workplace across all locations surveyed. Perceived special treatment toward males in the workplace can hinder the career advancement of women and reduce overall workplace productivity. Regional variations in the differentiated treatment of males highlight the need for localised, gender-sensitive employment policies to promote equitable economic participation.

Table 8.6
Perception of Respondents on
Special treatment to males: Occupation Wise Comparison

Occupation		Special treatment for males in the workplace					Total	Average
		Very Low	Low	Moderate	High	Very High		
Fishing Related Jobs	N	6	5	9	13	11	44	3.4091
	%	13.6	11.4	20.5	29.5	25.0	100.0	
Business	N	1	2	7	2	0	12	2.8333
	%	8.3	16.7	58.3	16.7	0.0	100.0	
Daily Wage	N	24	9	15	22	7	77	2.7273
	%	31.2	11.7	19.5	28.6	9.1	100.0	
Professionals	N	1	0	0	1	1	3	3.3333
	%	33.3	0.0	0.0	33.3	33.3	100.0	
Total	N	32	16	31	38	19	136	2.9706
	%	23.5	11.8	22.8	27.9	14.0	100.0	
Chi-Square Result		Value: 21.708, df: 12, p: 0.041						

Source: Primary Survey, 2022

Table 8.6 presents the perceptions of female fisherfolk regarding the preferential treatment received by males in the workplace. In the fishing-related occupation, 13.6% of female respondents perceived the level of special treatment to be very low, while 25% perceived it as very high. The table also provides an average perception score across all occupations, indicating an overall perception of special treatment among female workers. The average perception score is calculated to be 2.9706. It advocates a moderate perception of special treatment for males across the surveyed occupations. The chi-square test results indicate a statistically significant association between occupation and the perception of special treatment among female workers. This suggests that perceptions of special treatment vary significantly across different occupations among female workers. It highlights potential disparities in workplace dynamics and gender relations within different professional settings.

The perception of preferential treatment toward males in fishing-related occupations may contribute to gender imbalances in career progression and decision-making power. Such disparities could hinder the economic participation of women and limit their access to resources and leadership roles.

8.4. Influence of Work Participation on Gender Disparity

Gender disparity remains a persistent challenge across various societal domains. Examining the influence of work participation on gender disparity is important for addressing inequalities and promoting gender equity. Work participation reflects the extent to which individuals engage in economic activities and also reveals underlying disparities in opportunities, access and treatment based on gender. The research conducted by Kabeer (2005) emphasises the importance of economic empowerment through work participation in reducing gender disparities, especially in low-income communities. Sen (1999) and Duflo (2012) emphasise the role of women's labour force participation in challenging traditional gender norms and promoting the rights of women.

Fisherwomen often face unique challenges, comprising limited access to resources, discriminatory practices, and unequal treatment in the workplace. Increased work participation of female fisherfolk can challenge gender disparities among female

fisherfolk and gender-sensitive policies and interventions can promote the inclusion and empowerment of women in the sector (Gopakumar et al. 2018). The influence of work participation on gender disparity extends beyond economic factors and it includes social, cultural and political dimensions. So, understanding the influence of work participation on gender disparity requires a multidimensional approach that considers economic, social and cultural factors. Gender disparity can be mitigated through supporting equitable opportunities, eliminating discriminatory practices and fostering inclusive work environments.

Table 8.7
Working Status and Preferential Treatment in the Family: Respondents' Perception

	Work Status	N	Mean	Std. Dev.	Std. Error Mean	t-test for Equality of Means
Preferential treatment in food	Not Employed	262	3.9847	.85307	.05270	t=0.367* df= 203.155 p=0.714
	Employed	136	3.9412	1.23986	.10632	
Preferential treatment in education	Not Employed	262	3.4962	1.17362	.07251	t=4.659* df= 222.996 p=0.000
	Employed	136	2.8088	1.49822	.12847	
Preferential treatment in ownership of assets	Not Employed	262	3.8473	.91788	.05671	t=3.990* df= 192.527 p=0.000
	Employed	136	3.3015	1.45205	.12451	
Preferential treatment in decision-making	Not Employed	262	3.6221	1.01255	.06256	t=2.995* df= 219.737 p=0.003
	Employed	136	3.2353	1.31788	.11301	
Preferential treatment in family functions	Not Employed	262	3.4847	1.03842	.06415	t=2.375* df= 224.263 p=0.018
	Employed	136	3.1765	1.31590	.11284	

*Source: Primary Survey, 2022, Note: * Equal variances not assumed, 1-Very low, 5-Very High*

Table 8.7 presents a comparative analysis of perceptions regarding preferential treatment in various aspects of family life based on the employment status of respondents. In terms of preferential treatment in food, both employed (mean = 3.94) and not employed individuals (mean = 3.98) reported moderately high perceptions with no statistically significant difference (p = .714). In other areas, such as education,

ownership of assets, decision-making and family functions, not-employed individuals consistently reported significantly higher perceptions of preferential treatment. The mean score for preferential treatment in education is 3.50 for not-employed respondents compared to 2.81 for employed respondents ($p < .001$). For ownership of assets, the not employed group had a mean of 3.85, while the employed group had a mean of 3.30 ($p < .001$). Similarly, perceptions related to decision-making showed higher scores among the not employed (mean = 3.62) than the employed (mean = 3.24; $p = .003$). For family functions, the not-employed group had a mean score of 3.48 compared to 3.18 among the employed ($p = .018$). These findings indicate that not-employed women tend to perceive greater levels of preferential treatment within the family across key domains. This suggests that employment status has a significant influence on women’s perceptions of fairness, autonomy, and their role in family decision-making and resource allocation.

Table 8.8
Perceptions of Gender Disparity among Respondents: A Comparison by Work Status

		Higher wage is given to men only			Employees prefer men only			Some jobs can be done by men only		
		Working Status		Total	Working Status		Total	Working Status		Total
		No	Yes		No	Yes		No	Yes	
Strongly disagree	N	9	3	12	12	13	25	1	1	2
	%	3.4	2.2	3.0	4.6	9.6	6.3	0.4	0.7	0.5
Disagree	N	8	11	19	6	14	20	8	10	18
	%	3.1	8.1	4.8	2.3	10.3	5.0	3.1	7.4	4.5
Neutral	N	33	19	52	36	24	60	46	28	74
	%	12.6	14.0	13.1	13.7	17.6	15.1	17.6	20.6	18.6
Agree	N	167	48	215	169	46	215	156	45	201
	%	63.7	35.3	54.0	64.5	33.8	54.0	59.5	33.1	50.5
Strongly Agree	N	45	55	100	39	39	78	51	52	103
	%	17.2	40.4	25.1	14.9	28.7	19.6	19.5	38.2	25.9
Total	N	262	136	398	262	136	398	262	136	398
	%	100	100	100	100	100	100	100	100	100
Chi-Square Result		Value: 38.03,df:4, p: 0.000			Value: 40.14, df:, p: 0.000			Value: 28.92, df:, p: 0.000		

Source: Primary Survey, 2022

Table 8.8 examines perceptions of gender disparity across various aspects. A higher proportion of not employed individuals agreed or strongly agreed with the perceptions that men are given higher wages, employers prefer to hire men and certain jobs are considered suitable only for men. Specifically, 63.7% of not-employed respondents agreed that higher wages are given to men only, compared to 35.3% of employed respondents; 64.5% of not-employed respondents agreed that employees prefer men only, compared to 33.8% of employed respondents; and 59.5% of not employed respondents agreed that some jobs can only be done by men, compared to 33.1% of employed respondents. The chi-square tests revealed statistically significant differences in perceptions between not employed and employed individuals for all three aspects of gender disparity ($p < .001$). These findings suggest that not-employed individuals tend to perceive higher levels of gender disparity. It highlights that perceived gender disparities exist more among not employed women and it reflects their limited exposure to diverse work environments and economic independence. It may discourage workforce participation and reinforce traditional gender roles.

Table 8.9

Respondents' Perceptions on Gender Disparity - Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.963	
Bartlett's Test of Sphericity		Approx. Chi-Square	13270.973
		Df	253
		Sig.	.000
Sl. No.	Factors	Latent factors	
		Component 1	Component 2
1	Family Supports	.946	
2	Support from Society	.932	
3	Knowledge about work	.910	
4	Participation in social activities	.901	
5	Household responsibilities	.898	
6	Societal status	.870	
7	Respect in the family	.862	
8	Freedom of mobility	.856	

9	Lack of a traditional dry fish business	.845	
10	Depending others	.845	
11	Control of household amenities	.835	
12	Respect in society	.814	
13	Government supports	.741	
14	Control on income	.709	
15	Control on assets	.685	
16	Religious restrictions		.890
17	Restrictions due to tradition and culture		.824
18	Gender discriminations		.821
19	Special skills acquired		.810
20	Traditional attitudes		.806
21	Participation in political activities		.794
22	Job opportunities nearby		.769
23	Decision-making power		.604
Eigen Values		15.358	2.930
Per cent of total variation explained		66.775	12.741
Cumulative Percentage of the variance explained		66.775	79.516
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalisation.			
a. Rotation converged in 3 iterations.			
Cronbach's Alpha= 0.976			

Source: Primary Survey, 2022

Table 8.9 revealed two key dimensions shaping perceptions of gender disparity among fisherfolk. The analysis was supported by a high Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.963) and a statistically significant Bartlett's Test of Sphericity ($p < .001$), confirming the suitability of the data for factor analysis. With a Cronbach's Alpha of 0.976, the data showed excellent internal consistency. Together, the two extracted components explained 79.516% of the total variance, indicating a strong explanatory power of the identified factors.

The first dimension reflects socio-economic empowerment and support, including perceptions related to access to resources, social status and autonomy. Variables such as family and societal support, control over income and assets, freedom of mobility and participation in social and household responsibilities contributed significantly to this factor. The second dimension centres around traditional norms

and gender bias. It highlights how cultural and religious restrictions, gender discrimination, limited skill acquisition and barriers to political participation shape perceptions of inequality. These two dimensions illustrate that fisherfolk perceive gender disparity both through tangible socio-economic opportunities and deeply rooted cultural and traditional norms.

Table 8.10

Perceived Gender Disparity among Fisherfolk by Work Status

	Work Status	N	Mean	Std. Dev.	Std. Error Mean	Independent sample t-test
Socio-economic empowerment and supports	Not Employed	262	2.9700	1.24448	.07688	-6.025 (396) p=0.000
	Employed	136	3.7255	1.06546	.09136	
Traditional norms and gender bias	Not Employed	262	2.7457	1.18486	.07320	-0.581 (396) p=0.562
	Employed	136	2.8189	1.20693	.10349	

Source: Primary Survey, 2022

Table 8.10 presents that fisherfolk who are not employed have a perception score of 2.9700 for socio-economic empowerment and Support, whereas, for their employed counterparts, it rises notably to 3.7255. It shows a significant disparity in perceived empowerment, as confirmed by an independent sample t-test ($t = -6.025$, $df = 396$, $p = 0.000$). This suggests that employment status markedly influences perceptions of empowerment, with employed individuals feeling more supported. Perceptions of traditional norms and gender bias show less variation between employed and unemployed fisherfolk, with mean scores of 2.7457 and 2.8189, respectively. It suggests no significant difference was noted through statistical analysis ($t = -0.581$, $df = 396$, $p = 0.562$). The findings specify that employment status significantly influences perceptions of socio-economic empowerment and support among fisherfolk, with employed individuals expressing greater perceived empowerment. However, there is no significant difference in perceptions of traditional norms and gender bias based on work status within this context.

Table 8.11
Work Status on Socio-economic Empowerment and Support- Regression Analysis

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.290	.084	.082	1.18649	1.375
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	51.103	1	51.103	36.301	.000
Residual	557.471	396	1.408		
Total	608.574	397			
Coefficients					
	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.970	.073		40.517	.000
Work Status	.756	.125	.290	6.025	.000

Note: Working Status Coding- Not Employed=0, Employed=1, Source: Primary Survey, 2022

The regression analysis presented in Table 8.11 explores the relationship between work status and socio-economic empowerment and support among fisherfolk. The results reveal a statistically significant positive association, with employment explaining approximately 8.4% of the variation in socioeconomic empowerment ($R^2 = 0.084$; $F = 36.301$; $p < 0.001$). The coefficient for work status ($B = 0.756$, $t = 6.025$, $p < 0.001$) indicates that being employed significantly increases an individual's level of socio-economic empowerment and support. This relationship suggests that employment contributes to financial independence and also to increased social recognition, decision-making power and control over resources. Therefore, the null hypothesis stating that there is no significant relationship between work status and socioeconomic empowerment and support among fisherfolk can be rejected.

The findings underline a notable gender disparity in socio-economic empowerment, closely tied to employment status. Since men are more likely to be

employed in fishing-related activities, they benefit more from the associated empowerment and support. Women constrained by traditional roles, domestic responsibilities and societal norms, experience lower employment rates and consequently less empowerment and support. Hence, it is appropriate to reject the null hypothesis, as the findings indicate that employment status has a significantly different impact on the socio-economic empowerment of male and female fisherfolk. The lower employment rates among women suggest that women face significant barriers to employment. These barriers can include household responsibilities, child-rearing duties and societal norms that limit their participation in the workforce. These results imply that increasing women's employment may enhance overall community productivity and resource utilisation. Gender disparities in empowerment limit the economic contributions of women, reinforcing income inequality and social dependency. Minimising these gaps may lead to more inclusive and sustainable local economic development.

8.5 Hypotheses Testing

Hypothesis 1: There is no significant relationship between work status and socio-economic empowerment and support among fisherfolk.

The null hypothesis was tested using both independent sample t-tests and regression analysis. Table 8.10 provides clear evidence of a statistically significant difference in socio-economic empowerment and support based on work status. The mean score for socio-economic empowerment and support among non-employed respondents is 2.9700, while the mean score for employed respondents is substantially higher at 3.7255. This difference is statistically significant ($t = -6.025$, $df = 396$, $p < 0.001$), indicating that employed fisherfolk report significantly higher levels of perceived socio-economic empowerment and support than those who are not employed. This result is further strengthened by the regression analysis presented in Table 8.11. The model shows that work status is a statistically significant predictor of socio-economic empowerment and support ($R = 0.290$; $R^2 = 0.084$; $F = 36.301$; $p < 0.001$). The unstandardised regression coefficient for work status is $B = 0.756$ ($t = 6.025$, $p < 0.001$), indicating that being employed increases the socio-economic empowerment and support score by 0.756 units, holding other factors constant. Although the

explained variance is modest (8.4 per cent), the relationship is statistically significant and substantively meaningful.

In contrast, Table 8.10 shows that perceptions of traditional norms and gender bias do not differ significantly by work status (means: 2.7457 for not employed and 2.8189 for employed; $t = -0.581$, $p = 0.562$). However, since the hypothesis specifically concerns socio-economic empowerment and support, the strong and statistically significant results for this dimension contradict the null hypothesis. Therefore, the null hypothesis is rejected. There is a statistically significant relationship between work status and socio-economic empowerment and support among fisherfolk. Hypothesis 2: Employment status does not significantly affect socio-economic empowerment among male and female fisherfolk differently.

The hypothesis was examined by analysing gender-based differences in empowerment-related perceptions and the interaction between gender, work status, and empowerment indicators. Table 8.3 reveals systematic gender differences across multiple empowerment dimensions. Males report higher mean scores than females in key areas such as control over assets (male mean = 3.2161; female mean = 3.0402), control over income (male mean = 3.1960; female mean = 3.0804), participation in political activities (male mean = 3.0829; female mean = 2.7437), and availability of nearby job opportunities (male mean = 3.0276; female mean = 2.7261). These differences indicate that males, who also have higher employment rates, experience greater socio-economic empowerment compared to females. Further evidence is provided by Table 8.7 and Table 8.8, which show that not-employed respondents, among whom women are over-represented, report significantly higher perceptions of preferential treatment in education, asset ownership, decision-making, and family functions (all $p < 0.05$). For example, in Table 8.7, not-employed respondents report a significantly higher mean for preferential treatment in education (mean = 3.4962) compared to employed respondents (mean = 2.8088; $p < 0.001$) similarly higher means for observed asset ownership (3.8473 vs 3.3015; $p < 0.001$) and decision-making (3.6221 vs 3.2353; $p = 0.003$). These results indicate that lack of employment more common among women is associated with lower empowerment and higher perceived discrimination within the household.

In addition, Table 8.10 demonstrates that employment significantly increases socio-economic empowerment overall. Given that men are more likely to be employed in fishing-related and other income-generating activities, they benefit disproportionately from the empowerment effects of employment. This implies that employment status affects socio-economic empowerment differently for men and women, not necessarily through a formal interaction term, but through gender-differentiated access to employment and the resulting empowerment outcomes. The regression results in Table 8.11 further support this conclusion by showing that employment has a strong positive effect on empowerment ($B = 0.756$, $p < 0.001$). Since women have lower employment rates and face greater barriers to work participation, they experience lower average levels of socio-economic empowerment compared to men. This constitutes indirect but strong evidence that employment status contributes to differential empowerment outcomes for male and female fisherfolk.

Based on the consistent gender differences in empowerment indicators (Table 8.3), the significant effects of employment on empowerment (Table 8.10 and Table 8.11), and the higher concentration of women in the non-employed group with lower empowerment outcomes (Tables 8.7 and 8.8), the null hypothesis is rejected. Employment status does significantly affect socio-economic empowerment differently among male and female fisherfolk, with men benefiting more due to higher employment rates and greater access to empowerment-linked resources and opportunities.

8.6. Conclusion

This chapter presented the pervasive nature of gender disparity among fisherfolk and the significant influence of work participation on mitigating these inequalities. Through a detailed analysis of various factors such as education, occupation, family dynamics and perceptions of skill, the findings highlight the important areas where gender inequities manifest and persist.

There is a marked difference in educational attainment between genders, with women having lower educational levels compared to men. This educational gap limits the opportunities of women for skilled employment and perpetuates a cycle of limited socio-economic mobility. Educational disparities restrict the access of women to better job prospects. It reinforces the economic dependencies and perpetuates gender

inequalities. Men dominate fishing-related occupations, while women are more likely to be engaged in less formal, lower-paying jobs and remain unemployed. It is clear evidence of occupational segregation, reflecting traditionally masculine-controlled gender roles and reinforcing economic dependencies and inequalities. The limited presence of women in skilled and higher-paying jobs exposes the structural barriers they face in the labour market.

The perception of skills and employment status reveals significant insights. Employed individuals perceive their skills as higher compared to those who are not employed. This disparity in skill perception suggests that employment provides economic benefits and enhances self-confidence and perceived competencies. Women who are employed report higher levels of respect within the family and society. These factors contribute to their overall empowerment and challenge traditional gender norms. The regression analysis further confirmed that employment has a statistically significant positive effect on socio-economic empowerment and support. Employed women experience higher levels of empowerment, greater social recognition and more decision-making power. It highlights the crucial role of work participation in addressing gender disparities.

The influence of work participation on reducing gender disparities is profound. Employed women benefit significantly from family and society, which are vital for their continued participation in the workforce. Traditional norms and gender biases still pose significant barriers, highlighting the need for continued efforts to address these issues. Support systems play a crucial role in enabling women to balance work and family responsibilities. It enhances the participation of female fisherfolk in the labour force.

This chapter further highlights the significant impact of work participation on gender disparity among fisherfolk. By providing quality education, enhancing skill development and fostering supportive environments, it is possible to reduce these disparities and promote gender equity. The evidence from the regression analysis strengthens the argument that employment status is not just an economic indicator but a transformative factor in women's social empowerment. The insights from this analysis provide a foundation for developing suitable policies that can empower women and create a more inclusive and equitable workforce. Creating supportive

work environments that address issues such as harassment, respect and decision-making power can further empower women and encourage their active participation in the workforce.

CHAPTER IX

EMPOWERING FEMALE FISHERFOLK: AWARENESS AND USE OF STATE SUPPORT

-
- 9.1 Introduction
 - 9.2. Government Interventions Targeting Fisherfolk
 - 9.3. Awareness and Utilisation of Government Programme
 - 9.4. Hypothesis Testing
 - 9.5. Conclusion
-

CHAPTER IX

EMPOWERING FEMALE FISHERFOLK: AWARENESS AND USE OF STATE SUPPORT

9.1.Introduction

The participation of women in the workforce is vital for the socio-economic development of any community. However, the fishing communities and their roles in Kerala remain underrecognised and undervalued. Despite being actively involved in various aspects of the fisheries sector such as processing, marketing and trade, fisherwomen face numerous challenges including limited access to resources, lower education levels and socio-cultural constraints that restrict their full economic engagement. To address these disparities, several government programmes have been introduced by central and state governments in Kerala, focusing on skill development, financial assistance and social empowerment. However, the success of these initiatives largely depends on the awareness and utilisation of such schemes among the intended beneficiaries. This chapter builds on earlier discussions of the demographic and socio-economic context of the fisherfolk community to evaluate how effectively these government interventions are reaching fisherwomen and whether they contribute meaningfully to improving their work participation and overall status within the sector.

The first part of this chapter highlights the various programmes implemented by both the central and state governments for the upliftment of fisherfolk communities in the state. The second part examines the awareness of fishing communities regarding these government programmes. This analysis was conducted among 398 female respondents from a total sample of 405 households in the study area. For this exploration, various statistical tools such as mean, standard deviation, t-test, and chi-square test were used.

9.2. Government Interventions Targeting Fisherfolk

Government interventions targeting fisherfolk are crucial in addressing the socio-economic challenges faced by this community. These support systems are designed to enhance livelihoods, ensure sustainable fishing practices and promote gender equity. The focus on fisherfolk, particularly in regions like Kerala, recognises the vital role this community plays in the local economy and the unique challenges they face. One of the key interventions is the provision of subsidies and financial assistance. These programmes aim to reduce the cost burden on fisherfolk by providing subsidies for essential inputs such as fishing gear, fuel and ice. The Matsya Samridhi Yojana offers financial aid to support the procurement of modern fishing equipment, which helps to increase the efficiency and safety of fishing activities (Ministry of Fisheries, Animal Husbandry and Dairying, 2021).

In addition to financial aid, capacity-building programmes are crucial for enhancing the skills and knowledge of fisherfolk. These programmes include training sessions on sustainable fishing practices, fish farming techniques and value-addition processes. The government, through institutions like the National Fisheries Development Board, conducts regular workshops and training programmes aimed at improving the technical and managerial skills of fisherfolk (NFDB, 2022). Another significant area of intervention is the improvement of infrastructure. The construction and modernisation of fishing harbours, cold storage facilities, and fish landing centres are essential for supporting the fishing industry. These infrastructural improvements enhance the efficiency of fishing operations and also ensure the quality and marketability of the catch (Government of Kerala, 2021).

Social welfare schemes also play a vital role in supporting the fisherfolk community. Programmes such as the Fishermen Welfare Fund provide financial assistance during off-season periods and emergencies. These welfare schemes are designed to address the vulnerabilities and enhance the resilience of the fisherfolk community (Kerala State Coastal Area Development Corporation, 2021). Governments have taken various initiatives to empower women in the fishing industry and ensure gender equity. These include providing access to microfinance, forming

self-help groups, and promoting the participation of women in decision-making processes within the community. Such initiatives aim to reduce gender disparities and enhance the socio-economic status of women fisherfolk (Ministry of Women and Child Development, 2021). Government interventions targeting fisherfolk cover a broad spectrum of financial, technical, infrastructural, and social support measures. These interventions are necessary for ensuring the sustainable development of the fishing industry and improving the livelihoods of fisherfolk. By addressing both the economic and social dimensions of their challenges, these programmes contribute significantly to the overall well-being and empowerment of the fisherfolk community.

9.2.1. An Overview of State and Central Government Schemes

The livelihoods of fisherfolk, especially in coastal regions like Kerala, are significantly influenced by a range of state and central government schemes designed to support and enhance their socio-economic well-being. These schemes cater to various aspects of fishing activities, from financial assistance and skill development to welfare measures and infrastructure improvements.

Central Government Schemes

Pradhan Mantri Matsya Sampada Yojana is a flagship scheme launched by the Government of India to bring about a Blue Revolution through sustainable and responsible development of the fisheries sector. PMMSY aims to enhance fish production, productivity and quality. It includes provisions for modernising fishing harbours, developing cold chain infrastructure and promoting aquaculture (Ministry of Fisheries, Animal Husbandry and Dairying, 2021).

Blue Revolution, Integrated Development and Management of Fisheries scheme focuses on improving fish production and productivity through the adoption of modern technology and practices. It includes components like fisheries infrastructure, post-harvest management and the development of marketing infrastructure. The scheme also emphasises the sustainable management of fisheries resources (Department of Animal Husbandry, Dairying & Fisheries, 2020).

The National Fisheries Development Board plays a prominent role in implementing various projects aimed at the holistic development of the fisheries sector. These include capacity-building programmes, technical training for fisherfolk and the promotion of innovative practices in aquaculture and fisheries management (NFDB, 2022).

Rashtriya Krishi Vikas Yojana stands for financial support to develop agriculture and allied sectors, including fisheries. RKVY scheme encourages states to formulate comprehensive development plans for the fisheries sector, ensuring the sustainable growth of fish production and the welfare of fisherfolk (Ministry of Agriculture & Farmers Welfare, 2021).

State Government Schemes

The Matsya Keralam Project launched by the Government of Kerala aims to increase fish production through scientific and sustainable methods. It includes initiatives like the promotion of cage farming, pond aquaculture and the rejuvenation of inland water bodies for fish farming. The project also provides financial assistance and technical support to fisherfolk (Kerala Fisheries Department, 2022).

Kerala State Coastal Area Development Corporation Programmes implements various programmes focused on the holistic development of coastal areas and the welfare of fisherfolk. The KSCADC programmes include the construction of modern fish markets, ice plants and processing units, as well as the provision of housing and sanitation facilities for fisherfolk families (KSCADC, 2021).

Fishermen Welfare Fund Board provides a range of welfare measures for fisherfolk, including financial assistance during lean fishing seasons, health insurance and educational scholarships for the children of fisherfolk. The FWFB aims to improve the overall quality of life for fisherfolk and their families (Kerala State Fishermen Welfare Fund Board, 2022).

Subsidy schemes for fishing equipment and fuel by the Kerala government offer a wide range of opportunities to empower the fisherfolk communities of the state. It includes subsidies on fishing equipment, gear and fuel to reduce the operational

costs for fisherfolk. These subsidies are crucial in ensuring that small-scale and traditional fisherfolk can continue their activities sustainably and profitably (Kerala Fisheries Department, 2022).

The Fishermen Distress Relief Fund is an initiative to provide immediate financial assistance to fisherfolk affected by natural disasters, such as cyclones and floods. The FDRF fund ensures that fisherfolk have the necessary support to rebuild their lives and continue their livelihoods after such events (Government of Kerala, 2022).

Women Empowerment Schemes of Kerala have specific programmes aimed at empowering women fisherfolk, such as providing financial assistance for starting small businesses related to fisheries. It offers various skill development programmes and ensures their participation in decision-making processes within the community. These initiatives aim to enhance the socioeconomic status of women in the fishing community (Kerala State Women's Development Corporation, 2022).

The state and central government schemes targeting fisherfolk highlight the commitment to improving their livelihoods and ensuring the sustainability of the fishing industry. By focusing on financial, technical, infrastructural and social dimensions, these schemes play a pivotal role in enhancing the socioeconomic status of fisherfolk and promoting sustainable fishing practices.

9.2.2. Specific Programmes for Female Empowerment

The empowerment of women within the fisherfolk community is essential for enhancing their socio-economic status and ensuring their active participation in the industry. Several specific programmes, both at the state and central levels, are designed to address the unique challenges faced by women in this sector. These programmes aim to provide financial assistance and skill development opportunities and ensure their involvement in decision-making processes.

The Matsya Sakhi Program, initiated by the Government of Kerala is designed to empower women by providing them with the necessary training and resources to engage in fisheries-related activities. This program includes training in fish

processing, value addition and marketing skills. It enables women to start their small-scale enterprises. The objective is to enhance their income and ensure financial independence (Kerala Fisheries Department, 2023).

Mahila Kisan Sashaktikaran Pariyojana is a special programme implemented under the National Rural Livelihood Mission (NRLM). The MKSP aims to empower women in rural areas, including fisherwomen, by promoting sustainable agriculture practices and fisheries. This scheme provides training and capacity-building programmes to enhance the technical skills of women, enabling them to adopt innovative practices in fisheries and aquaculture (Ministry of Rural Development, 2023).

Support to Training and Employment Program for Women program is an initiative under the Ministry of Women and Child Development. STEP aims to provide skills that give employability to women and to provide competencies and skills that enable women to become self-employed/entrepreneurs. The program focuses on training in fish processing, preservation techniques and entrepreneurship development (Ministry of Women and Child Development, 2023).

Women's Self-Help Groups are instrumental in empowering fisherwomen by providing them with a platform to collectively address their issues and access various government schemes. The SHG groups facilitate micro-financing and provide training in financial management, empowering women to undertake fisheries-related businesses. SHGs also play a vital role in community development and advocacy for women's rights within the fishing community (Kerala State Women's Development Corporation, 2022).

Pradhan Mantri Mudra Yojana scheme provides loans up to 10 lakh rupees to non-corporate, non-farm small/micro-enterprises. Fisherwomen can avail of these loans to start or expand their fisheries-related businesses. The scheme aims to promote entrepreneurship among women by providing them with easy access to credit and encouraging them to engage in productive activities (Ministry of Finance, 2023).

National Backward Classes Finance and Development Corporation provides financial assistance and skill development programmes for women from backward classes, including fisherwomen. The NBCFDC offers loans at concessional rates for starting fisheries-related businesses and provides training programmes to enhance their skills in modern fishing techniques and fish processing (NBCFDC, 2022).

Fisherwomen Cooperative Societies are an establishment of cooperative societies for fisherwomen. It aims to provide a structured framework for their participation in the fisheries sector. These societies facilitate access to government schemes, provide training and resources and enable collective bargaining for better prices for their produce. Cooperatives also play a vital role in promoting social solidarity and mutual support among fisherwomen (Kerala Fisheries Department, 2023).

The Integrated Coastal Zone Management Program focuses on the sustainable management of coastal areas, including livelihood support for fisherfolk communities. ICZM programme initiative provides training in sustainable fishing practices, coastal resource management and alternative income-generating activities like shellcraft, handicrafts and ecotourism to female fisherfolk. It promotes their economic empowerment and environmental sustainability (Ministry of Environment, Forest and Climate Change, 2023).

National Rural Livelihoods Mission aims to alleviate poverty and enhance livelihood opportunities in rural areas, including coastal regions. As part of this mission, special emphasis is placed on promoting women's self-help groups (SHGs) among the fishing community. These SHGs enable women to access credit, develop entrepreneurial skills and engage in collective decision-making, thereby empowering them socially and economically (Ministry of Rural Development, 2023).

Matsya Sampada Yojana is launched by the Ministry of Fisheries, Animal Husbandry & Dairying. This programme aimed to modernise the fisheries sector and enhance fish production and productivity. The scheme includes provisions for the promotion of women-centric initiatives such as women's self-help groups, fisherwomen cooperatives and women-led aquaculture ventures. These initiatives

enable women to participate actively in various aspects of the fisheries value chain, from production to marketing (Ministry of Fisheries, Animal Husbandry & Dairying, 2023).

Skill Development and Vocational Training Programmes is a government-sponsored skill development and vocational training programme. The main aim of this programme is to equip fisherwomen with relevant skills for diverse employment opportunities. These programmes cover areas such as fish processing, net making, boat repair, marine conservation and marine tourism. These initiatives contribute to socio-economic empowerment and gender equality by enhancing the employability and income-earning potential of women (Ministry of Skill Development and Entrepreneurship, 2023).

National Fisheries Development Board Schemes implement various schemes to promote sustainable fisheries development, including initiatives targeted at women in the fishing community. NFDB schemes focus on capacity building, technology adoption and infrastructure development to empower fisherwomen and enhance their contribution to the fisheries sector (National Fisheries Development Board, 2023).

Rural Employment Generation Program is implemented by the Ministry of Micro, Small & Medium Enterprises. This programme aims to create sustainable employment opportunities in rural areas, including coastal regions inhabited by fisherfolk. Through this program, women are encouraged to set up micro-enterprises in fisheries-related activities, such as fish vending, processing and aquaculture, thereby fostering economic empowerment (Ministry of Micro, Small & Medium Enterprises, 2023).

National Scheme of Welfare of Fishermen provides finance to fisherwomen for the construction of houses, education of children and medical expenses. The scheme offers support for the welfare of families of deceased fishermen, ensuring social security and improved living standards for women in fishing communities (Ministry of Fisheries, Animal Husbandry & Dairying, 2023).

Financial Literacy Programmes are conducted to enhance the financial management skills of fisherwomen. The main aim of this initiative is to enable them to make informed decisions regarding savings, investments, and business ventures. These programmes provide training on budgeting, banking services and accessing credit facilities, thereby empowering women to manage their finances effectively and achieve economic independence (World Bank, 2023).

Theeramythri is one of the key programmes run by SAF (Society for Assistance to Fisherwomen) to empower women in fishing communities by helping them to find alternative livelihoods. It operates across all nine coastal districts of Kerala and focuses on capacity building, supporting micro-enterprises, and assisting in marketing their products.

Anganwadis play a vital role in the coastal areas by providing nutritious food to pregnant women and children. However, *Pakalveedu* (daycare) facilities are not familiar to the respondents. But it is well run in many places. It provides reading facilities, awareness classes, Yoga classes to those who visit there.

These interventions of state and central governments aim to address the specific needs and challenges faced by fisherwomen, empowering them to improve their socio-economic status, participate more actively in decision-making processes and contribute effectively to the sustainable development of coastal communities.

9.3. Awareness and Utilisation of Government Programme

Government programmes are designed to aid fisherfolk in addressing the challenges such as disparities in socio-economic realms by providing financial assistance, training and other resources. Fisherwomen play a vital role in the fisheries sector, contributing significantly to both household and national economies. Despite their crucial contributions, fisherwomen often could not overcome numerous challenges such as a lack of access to resources, education and support systems. The implementation and effective utilisation of specially designed programmes can help to minimise the challenges faced by fisherwomen.

9.3.1. Awareness of Fisherfolk on Government Schemes

Awareness is the first step toward the successful utilisation of government programmes. Studies have shown that awareness levels among fisherwomen about available government programmes vary widely. There is only about 40% of fisherwomen are aware of the government schemes available to them (Patil & Gunjal, 2019). This lack of awareness can be attributed to several factors, including low literacy rates, limited access to information and inadequate dissemination of information by authorities. Awareness serves as the cornerstone for the successful implementation of government programmes targeting fisherwomen. Adequate awareness ensures that fisherwomen are aware of the available opportunities, entitlements, and support mechanisms provided by government schemes. It enables them to make informed decisions regarding their participation in these initiatives and harness the benefits therein.

Table 9.1

Level of Awareness of Various Programmes among Fisherfolk Women

Programmes	N	Min.	Max.	Mean	Std. Deviation
Housing schemes	398	1.00	5.00	4.0603	1.12735
Job Training	398	1.00	5.00	3.8568	1.18857
Women oriented schemes	398	1.00	5.00	3.8191	1.21180
Old age schemes	398	1.00	5.00	3.8819	1.22263
Fisheries scholarships	398	1.00	5.00	4.1231	1.06107
Insurance	398	1.00	5.00	3.9221	1.17337
Financial Sources	398	1.00	5.00	3.7111	1.24542
Overall Average Awareness	398	1.00	5.00	3.9106	1.01774

Source: Primary Survey, 2022, Note: 1= Not at Aware, 5= Highly Aware; Source: Primary Survey, 2022

The survey was conducted among 398 fisherwomen and measured their awareness of different programmes on a scale from 1 (Not at all aware) to 5 (Highly aware). The survey indicates that fisherwomen are most aware of fisheries scholarships (mean = 4.1231) and housing schemes (mean = 4.0603). The overall

average awareness across all programmes is 3.9106, suggesting a moderate level of awareness. The results suggest that awareness levels vary across different programmes, with some programmes such as fisheries scholarships scoring relatively higher mean awareness scores compared to others like financial sources (Table 9.1).

Awareness of government programmes plays an important role in shaping the socio-economic conditions of fisherwomen. These programmes often provide essential resources, training and financial support that can significantly impact employment status. The survey also examined the relationship between work status and awareness levels of various government programmes among fisherwomen.

Table 9.2

Work Status and Awareness Level on Various Programmes

Programmes	Work Status	Mean	Std. Deviation	Std. Error Mean	t-test (df=396)
Housing schemes	Not Employed	3.8855	1.13894	.07036	-4.391
	Employed	4.3971	1.02761	.08812	p=0.000
Job Training	Not Employed	3.6718	1.14766	.07090	-4.410
	Employed	4.2132	1.18889	.10195	p=0.000
Women oriented schemes	Not Employed	3.6221	1.17377	.07252	-4.614
	Employed	4.1985	1.19765	.10270	p=0.000
Old age schemes	Not Employed	3.7137	1.18988	.07351	-3.875
	Employed	4.2059	1.22394	.10495	p=0.000
Fisheries scholarships	Not Employed	3.9771	1.06109	.06555	-3.877
	Employed	4.4044	1.00649	.08631	p=0.000
Insurance	Not Employed	3.7519	1.14616	.07081	-4.096
	Employed	4.2500	1.15950	.09943	p=0.000
Financial Sources	Not Employed	3.5382	1.18276	.07307	-3.913
	Employed	4.0441	1.29882	.11137	p=0.000
Overall Average Awareness	Not Employed	3.7372	.97178	.06004	-4.851
	Employed	4.2447	1.02440	.08784	p=0.000

Primary Survey, 2022, Note: 1= Not at Aware, 5= Highly Aware; Source:

Table 9.2 indicates that employed fisherwomen have significantly higher awareness levels across all programmes compared to their non-employed counterparts. The t-test results show that these differences are statistically significant ($p < 0.000$). The findings indicate that awareness of government programmes among fisherwomen plays a significant role in the working status among fisherwomen.

Employed fisherwomen consistently show higher awareness levels across various programmes, including housing schemes, job training, women-oriented schemes, old age schemes, fisheries scholarships, insurance and financial sources. The differences are statistically significant. Higher awareness of government programmes among employed fisherwomen suggests that access to information and support services enhances their labour market participation. This can lead to improved household incomes, reduced economic vulnerability, and greater gender-inclusive growth in coastal economies.

9.3.2. Utilisation of Government Programmes

The utilisation of government programmes plays an important role in enhancing the socio-economic status and empowerment of fisherfolk communities. Understanding the utilization patterns of government programmes among fisherwomen is indispensable for promoting their welfare and livelihoods. Insights from the empirical research conducted in the region provide evidence of the utilisation of government programmes among fisherwomen in Kerala. The utilisation of government programmes among fisherwomen impacts their well-being and contributes to the overall socio-economic development of fishing communities. By ensuring equitable access and effective utilisation of government support, policymakers and stakeholders can empower fisherwomen to improve their livelihoods, strengthen their resilience to socio-economic shocks and promote gender equity within the fishing industry.

Even when fisherwomen are aware of government programmes, the actual utilisation of these programmes can be hindered by various barriers. These include bureaucratic hurdles, lack of documentation and socio-cultural constraints. Government schemes often fail to address the specific needs and circumstances of fisherwomen, leading to low participation rates.

Table 9.3
Awareness and Utilisation of Government Schemes

Utilisation of any Scheme	Mean Of Awareness Level	Std. Deviation	Std. Error Mean
Not Utilised	3.7372	.97178	.06380
Utilised	4.2447	1.02440	.08427
Independent Sample t-test	t (396)= -4.496, p=0.000		

Source: Primary Survey, 2022

Table 9.3 presents the level of awareness and utilisation of government schemes among fisherwomen in Kerala. It compares the mean awareness level, standard deviation and standard error mean between fisherwomen who have utilised any scheme and those who have not. The mean awareness level among fisherwomen who have not utilised any scheme is 3.7372 with a standard deviation of 0.97178. Fisherwomen who have utilised schemes have a higher mean awareness level of 4.2447, albeit with a slightly higher standard deviation of 1.02440 and a standard error mean of 0.08427. An independent sample t-test was conducted to assess the significance of the difference in mean awareness level between the two groups. The results show a statistically significant difference ($t(396) = -4.496, p = 0.000$), suggesting that fisherwomen who have utilised government schemes tend to have a significantly higher awareness level compared to those who have not. The findings underline the importance of awareness in the utilisation of government schemes among fisherwomen. Higher awareness levels are associated with greater utilisation, highlighting the need for designated efforts to enhance awareness and promote the effective utilisation of schemes aimed at empowering fisherwomen in Kerala.

Table 9.4
Work Participation and Utilisation of Government Schemes

Utilization of Government Schemes			Work Participation		Total	Chi-Square result
			Not Employed	Employed		
Use of Any Scheme	Not Utilized	N	161	75	236	1.474 (1) P=0.225
		%	61.5	55.1	59.3	
	Utilized	N	101	61	162	
		%	38.5	44.9	40.7	
Total			262	136	398	
			100.0	100.0	100.0	

Source: Primary Survey, 2022

Table 9.4 exposes the utilisation of any scheme among fisherwomen in Kerala categorized by their work participation status. It compares the number and percentage of fisherwomen who have utilised any scheme based on whether they are employed or not. Among fisherwomen who are not employed, 161 out of 262 (61.5%) have not utilised any scheme, while 75 out of 136 (55.1%) employed fisherwomen have also not utilised any scheme. 38.5% of not employed fisherwomen and 44.9% of employed fisherwomen have utilised at least one scheme. The chi-square test was conducted to examine the association between the utilisation of any scheme and work participation status among fisherwomen. The result ($\chi^2 = 1.474$, $df = 1$, $p = 0.225$) indicates that there is no statistically significant association between the utilisation of any scheme and work participation status among fisherwomen. The findings suggest that while there are differences in the utilisation of schemes among employed and not employed fisherwomen, these differences are not statistically significant.

Table 9.5

Upskilling Programmes and Gender-wise Skill Levels

Upskilling Programme Attended	Gender-wise Skill Levels	N	Std. Deviation
No	2.6390	374	1.21901
Yes	2.8750	24	1.26190
Total	2.6533	398	1.22130
t-test	t= -0.917, df = 396, p= 0.360		

Source: Primary Survey, 2022

Table 9.5 presents data on the upskilling programmes attended by women compared to men, along with their average skill levels. It compares the average skill level of women relative to men based on whether they have attended the programme or not. Among women who have not attended a skill-oriented program, the average skill level compared to men is 2.6390 with a standard deviation of 1.21901. Among women who have attended such programmes, the average skill level compared to men is 2.8750 with a standard deviation of 1.26190. The t-test was conducted to compare the average skill levels of women relative to men between those who attended upskilling programmes and those who did not. The result ($t = -0.917$, $df = 396$, $p =$

0.360) indicates that there is no statistically significant difference in the average skill levels of women compared to men between those who attended the programmes and those who did not. The result shows that women who attended upskilling programmes have a slightly higher average skill level (2.875) compared to those who did not attend (2.639). This indicates that the program may have been effective in enhancing the skills of participants as evidenced by the higher average skill level among attendees. The t-test result of -0.917 with a p-value of 0.360 indicates that the difference in average skill levels between attendees and non-attendees is not statistically significant. Similarly, attendees have a slightly higher average skill level, this difference is not large enough to be considered statistically significant.

Table 9.6

Upskilling Programmes and Average Skills Acquired

Upskilling Programme Attended	Average Skills Acquired	N	Std. Deviation
No	2.6791	374	1.39848
Yes	3.5000	24	1.47442
Total	2.7286	398	1.41483
t-test	t= -2.778, df = 396, p= 0.006		

Source: Primary Survey, 2022

Table 9.6 indicates that women who attended skill-oriented programmes have a substantially higher average of skill acquired (3.500) compared to those who did not attend (2.679). This suggests that the program may have been effective in facilitating the acquisition of skills among participants. The t-test result of -2.778 with a p-value of 0.006 indicates that the difference in the average of special skills acquired between attendees and non-attendees is statistically significant ($p < 0.05$). This suggests that attending skill-oriented programmes is associated with a significant increase in the acquisition of special skills. The substantial difference in the average of special skills acquired between attendees and non-attendees, coupled with the statistically significant t-test result. It suggests that the upskilling programme has been efficient in enhancing the abilities of participants to acquire the required skills. The findings highlight the importance and effectiveness of skill-oriented programmes in equipping participants with specialised knowledge and abilities. These acquired skills can

enhance employability, income generation, and overall socioeconomic empowerment among fisherwomen.

Table 9.7
Level of Satisfaction and Government Schemes

Level of Satisfaction	Frequency	Per cent
Not Satisfied	351	88.2
Satisfied	47	11.8
Total	398	100.0

Source: Primary Survey, 2022

Table 9.7 illustrates the satisfaction level of participants with the government schemes. Among the respondents, 11.8% of the total sample are satisfied with the existing government schemes. The majority of respondents (88.2%) expressed dissatisfaction with the current government schemes. The high proportion of dissatisfaction emphasises possible areas for improvement in the design, implementation and effectiveness of government schemes targeting fisherwomen. Based on the dissatisfaction expressed by the majority of participants, there is a need for comprehensive evaluations and stakeholder consultations to identify shortcomings and implement corrective measures. Enhancing transparency, accessibility and responsiveness of government schemes can contribute to higher satisfaction levels and improved outcomes for fisherwomen and their communities.

Table 9.8
Reasons for Dissatisfaction: Respondents' Perspective

Reasons	Frequency	Per cent	Per cent (among Dissatisfied)
Not interested in the scheme	22	3.98	6.27
Not reaching the deserving people	205	37.07	58.40
Not reaching the less developed areas	200	36.17	56.98
Political partiality	126	22.78	35.90
Total	553	100.00	

Source: Primary Survey, 2022, Note: The total exceeds the sample size of 398 because respondents were allowed to select more than one reason for dissatisfaction.

Table 9.8 presents the reasons for dissatisfaction among respondents regarding government schemes. A small proportion (3.98%) of the respondents cited a lack of interest in the schemes as a reason for their dissatisfaction. Among those dissatisfied, this reason represents 6.27% of the respondents. The most prominent reason for dissatisfaction reported by 37.07% of the total sample is the perceived failure of government schemes to reach the deserving beneficiaries. Among those dissatisfied, this reason accounts for 58.40% of the respondents. It shows a significant concern regarding the effectiveness and inclusivity of the schemes. 36.17% of respondents expressed dissatisfaction due to the perceived failure of schemes to reach less developed areas. Among dissatisfied respondents, this reason represents 56.98%, highlighting the importance of equitable distribution and accessibility of government initiatives. A considerable proportion (22.78%) of respondents attributed their dissatisfaction to political partiality in the implementation of schemes. Among dissatisfied respondents, this reason accounts for 35.90%, suggesting concerns about fairness and transparency in the delivery of government benefits.

9.3.3. Factors Affecting Awareness and Utilisation of Government Schemes

Analysing the factors influencing awareness and utilisation of government programmes among fisherwomen is decisive for designing effective interventions and policies aimed at promoting gender equity and socio-economic empowerment. Several factors influence the awareness and utilisation of government programmes among fisherwomen. Higher educational levels are one of the positively correlated factors, which enhance greater awareness and utilisation of government programmes (Roy & Ganguly, 2018). Community engagement and the geographic location of the fisherfolk (Place) also emerge as another key determinant in shaping their access to and utilisation of government support schemes.

Table 9.9

Education and Level of Awareness on Government Schemes

Education	N	Mean	Std. Deviation	Std. Error
Illiterate	11	3.55	.41171	.05822
Up to 7 th	259	3.90	.99564	.05432
High School	76	3.43	1.56492	.63888
SSLC Passed	42	4.74	.57499	.25714
Plus Two	7	4.71	0.4726	0.3916
Degree/Above	3	4.85	0.5625.	.03454
Total	398	3.91	1.01774	.05101
ANOVA	F (5, 392)= 15.891, p=0.000			

Source: Primary Survey, 2022

Table 9.9 highlights the influence of education on awareness levels of government schemes by the fisherfolk community. Illiterate fishermen have a mean awareness level of 3.55, indicating a moderate level of awareness despite their lack of formal education. Those with education up to the 7th grade exhibit a higher mean awareness level of 3.90, suggesting that basic education positively correlates with awareness. Fisherwomen with a high school education show a slight decrease in awareness levels, with a mean score of 3.43, possibly due to factors like access to information or relevance of the programmes. Individuals who have passed the SSLC demonstrate a significant increase in awareness with a mean score of 4.74, indicating a high level of awareness. Although the sample size is smaller, those with higher educational qualifications, such as plus two or a degree and above, exhibit consistently high awareness levels, with mean scores of 4.71 and 4.85, respectively. The analysis reveals a significant relationship between educational qualifications and awareness levels among fisherwomen ($F(5, 392) = 15.891, p = 0.000$). This suggests that educational attainment plays an important role in influencing awareness levels regarding government programmes targeted at fisherfolk.

Table 9.10
Community Engagements and
Level of Awareness on Government Schemes

		Level of Awareness
Participation in Social Activities	Pearson Correlation	.614**
	Sig. (2-tailed)	.000
	N	398

Source: Primary Survey, 2022

Table 9.10 presents the correlation between the average level of awareness of government schemes and participation in social activities among fisherwomen. The findings establish a significant positive correlation between community engagement and awareness levels of government schemes. The Pearson correlation coefficient between participation in social activities and the level of awareness is 0.614, indicating a strong positive correlation. The correlation is statistically significant ($p = 0.000$), emphasising the robustness of the relationship. The strong positive correlation between participation in social activities and awareness levels suggests that community engagement plays a crucial role in promoting awareness of government schemes among fisherwomen. Encouraging active involvement in community groups, cooperatives and social activities can serve as an effective strategy to enhance awareness, improve access to information, and facilitate the utilisation of government initiatives.

Table 9.11
Place and Level of Awareness on Government Schemes

Places	N	Mean	Std. Deviation	Std. Error
Anchuthengu	88	4.5471	.79236	.08447
Palapetty	88	3.6494	.94907	.10117
Ponnani	131	3.1985	.78217	.06834
Perumathura	91	4.5730	.75036	.07866
Total	398	3.9106	1.01774	.05101
ANOVA	F (3, 394)= 73.861, p=0.000			

Source: Primary Survey, 2022

Table 9.11 presents how geographic location influences individual awareness of available government initiatives and schemes. The table compares the mean

awareness levels across different places, including Anchuthengu, Palapetty, Ponnani and Perumathura. There is a clear variation in the mean awareness levels among respondents from different places. Insights from the table state that Anchuthengu and Perumathura show a higher average awareness compared to Palapetty and Ponnani. The ANOVA results indicate a statistically significant relationship between place of residence and average awareness level ($F = 73.861$, $p = 0.000$). The findings suggest that awareness of government schemes varies significantly depending on the place of residence. Analysing these disparities can contribute to more equitable access to government programmes across different regions. Effective communication strategies, such as local language broadcasts, community meetings and the involvement of local leaders, can significantly improve awareness and utilisation rates (Jain, 2017). Enhancing the awareness and utilisation of government programmes among fisherwomen requires a multidimensional approach. This includes improving education and literacy, strengthening community networks, and ensuring effective government outreach.

9.4.Hypotheses Testing

The study conducted hypothesis testing to assess the effectiveness of existing programmes aimed at reducing gender disparity among fisherfolk. The results revealed nuanced insights into the impact of these programmes. While attendance, utilisation, and satisfaction with government schemes did not exhibit significant associations with work participation among fisherwomen, there was a notable correlation between the level of awareness and their engagement in work. Specifically, women with higher levels of awareness demonstrated greater participation in work activities. This underlines the pivotal role of awareness initiatives in addressing gender disparity within the fisherfolk community. The findings suggest that efforts to enhance awareness about government programmes can catalyze empowering women and fostering greater gender equality in the fishing industry. Based on the hypotheses testing conducted in the study, the results indicate varying degrees of significance regarding the impact of existing programmes on reducing gender disparity among fisherfolk.

Table 9.12

Hypotheses Tests on the Relationship Between Government Programme and Female Work Participation

	Hypotheses	Test	Result
Utilization	H ₀ : There is no significant change in the work participation of women among those who utilize or not	Chi-Square	1.474 (1) P=0.225
	H ₁ : There is a significant change in the work participation of women among those who utilize or not		
Attendance	H ₀ : There is no significant change in work participation of women among those who attended any programme or not	Chi-Square	0.126 (1) P=0.723
	H ₁ : There is a significant change in work participation of women among those who attended any programme or not		
Satisfaction	H ₀ : There is no significant change in satisfaction with the government scheme concerning work participation	Chi-Square	2.617 (1) P=0.106
	H ₁ : There is a significant change in satisfaction with the government scheme concerning work participation		
Awareness	H ₀ : There is no significant change in work participation concerning the level of awareness	Independent T-test	f (1,396) =23.531, p=0.000
	H ₁ : There is a significant change in work participation concerning the level of awareness		

Source: Primary Survey, 2022

9.4.1. Utilisation of Government Programmes

A chi-square test of independence was conducted to examine the relationship between utilisation of government programmes and women's work participation. The result was not statistically significant, $\chi^2 (1, N = 398) = 1.474, p = 0.225$. Therefore, there is no significant association between programme utilisation and work participation among women. The lack of a significant association between programme utilisation and women's work participation suggests that merely accessing

government schemes does not automatically translate into improved employment outcomes. This implies a potential mismatch between programme design and the actual needs or barriers faced by fisherwomen.

9.4.2. Attendance in Government Programmes

A chi-square test was performed to determine if attendance in any government programme is associated with women's work participation. The result was not statistically significant, $\chi^2 (1, N = 398) = 0.126, p = 0.723$. Hence, attendance in government programmes does not significantly affect work participation among women. The absence of a significant relationship between programme attendance and the work participation of women indicates that attending programmes alone may not be sufficient to influence employment outcomes. This suggests a need to enhance the quality, relevance and follow-up of such programmes to ensure they effectively support women's entry into the labour force and contribute to economic empowerment.

9.4.3. Satisfaction with Government Schemes

The chi-square test examined whether satisfaction with government schemes is related to women's work participation. The result was not statistically significant, $\chi^2 (1, N = 398) = 2.617, p = 0.106$. Thus, satisfaction with government schemes does not significantly influence work participation among women. The lack of a significant link between satisfaction with government schemes and women's work participation suggests that even when women are content with the schemes, it may not translate into increased economic activity. This implies that satisfaction alone is insufficient without addressing deeper structural and labour market barriers.

9.4.4. Awareness of Government Programmes

An independent samples test was conducted to compare work participation between groups with differing levels of awareness. The result was statistically significant, $F (1, 396) = 23.531, p < 0.001$. Therefore, the awareness of government programmes has a significant positive effect on work participation among women. The significant positive relationship between awareness of government programmes

and the work participation of women highlights the vital role of information access in enhancing economic engagement. Improving awareness through targeted outreach, community mobilisation and education can be an effective strategy to boost labour force participation and promote inclusive economic development among fisherwomen.

9.5. Conclusion

This chapter investigates the examination of awareness and utilisation levels of various government programmes for bridging the gender-based disparities among female fisherfolks. It explains the disparities in awareness across different schemes, indicating potential gaps in dissemination channels or information accessibility. Despite reasonable awareness levels, the utilization of these programmes remains suboptimal, suggesting underlying challenges in program accessibility and efficiency. The analysis further unveils several factors influencing program utilization, including educational qualifications, geographic location, and community involvement. The chapter outlines prevalent challenges, such as political biases and logistical hurdles, impeding effective program implementation. It also emphasises the need for improvements, stressing the importance of targeted awareness campaigns, community engagement initiatives and enhanced outreach strategies.

The analysis of various factors influencing the work participation of women reveals important insights into the effectiveness of government interventions among fisherwomen. While utilisation, attendance and satisfaction with government programmes did not show a significant impact on employment status, awareness of these programmes emerged as a key determinant of work participation. This suggests that simply providing schemes or ensuring attendance may not be enough; what matters more is how well-informed and empowered women are to navigate and benefit from available opportunities. For meaningful economic empowerment, government programmes must move beyond delivery and focus on accessibility, relevance, and awareness at the grassroots level.

CHAPTER X

FINDINGS AND CONCLUSIONS

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- 10.1. Introduction
 - 10.2. Policy Suggestions
 - 10.3. Scope for Future Research
 - 10.4. Conclusion
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CHAPTER X

FINDINGS AND CONCLUSIONS

10.1.Introduction

The fishing communities of Kerala have long remained among the most socio-economically marginalised groups in the state. They grappled with issues such as economic insecurity, seasonal unemployment, and limited access to education, healthcare and infrastructure. Within this vulnerable setting, women from fishing households often experience a double burden. They phase economic hardship and systemic gender-based disadvantages that hinder their participation in the workforce. Despite their substantial contributions to the pre-and post-harvest fisheries sector and their roles in household sustenance, the economic activities of women remain largely invisible and undervalued.

This study explores the gender disparity in work participation among fisherfolk in Kerala with a specific focus on Thiruvananthapuram district in southern Kerala and Malappuram district in northern Kerala. These locations represent diverse socio-cultural and economic settings within the state's fisheries sector and provide a comparative base to understand regional variations in women's work participation.

Adopting a mixed-methods approach, the study is grounded in primary data collected through structured survey schedules administered to selected fishing households across the four areas. The survey captures detailed information on demographic profiles, educational status, economic activities, and employment patterns of both men and women in these communities. The collected data is analysed using a suite of statistical tools including descriptive statistics, chi-square tests, t-tests, ANOVA, factor analysis, and binary logistic regression. The study set five important objectives and through a structured analysis presented in each chapter, the following findings were derived.

Objective-1. To examine the socio-economic characteristics and living conditions of fisherfolk households within the study area.

- The result shows that the majority of fisherfolk households live in nuclear families and it reflects a gradual shift away from traditional joint family systems.
- Most of the respondents belong to the Other Backward Classes (OBC) and this confirms the socio-economically marginalised status of the fishing community.
- The majority of households are Below the Poverty Line (BPL), which indicates the existence of poverty in the study area.
- A vast majority of respondents own their houses with varied quality.
- Ownership of modern amenities is mixed: Drinking water facility, toilet facility, electricity, and gas connection are common among the respondents. Only 15 to 16% of households experience the absence of toilet and drinking water facilities.
- Analysis shows that mobile phone ownership is relatively widespread, while the possession of other household appliances and vehicles remains limited, indicating low levels of capital asset acquisition.
- The majority of household members have only basic or secondary education with a small proportion attaining higher qualifications. Illiteracy is minimal and gender disparity in education is negligible with females slightly ahead at the high school and degree levels.
- In terms of occupational patterns and gender disparity in employment, a significant portion of the population is either engaged in fishing-related work or is pursuing education. It shows both current livelihood reliance and future workforce potential. However, a marked gender disparity exists in employment, with women facing lower participation rates, higher unemployment and greater concentration in informal or low-paying roles.
- In terms of income, expenditure and debt burden, most families have low monthly earnings with expenses often exceeding their income. It indicates

persistent financial stress faced by this community. A large proportion of families are burdened with debt, with many facing severe levels of indebtedness. This situation highlights significant economic vulnerability and a heavy reliance on loans for survival.

- The Study highlights that regional disparities are evident across the study areas. Palapetty and Ponnani lag behind in housing conditions, income and basic facilities. Housing quality varies significantly with concrete houses more common in Anchuthengu and Perumathura, while thatched structures dominate in Ponnani and Palapetty. Access to essential household facilities such as toilets, bedrooms and appliances is notably lowest in Ponnani.
- Income and expenditure patterns also differ across regions. Palapetty has the highest concentration of households in the lowest income and expenditure brackets, while Perumathura demonstrates a stronger economic standing. Debt patterns vary as well with Palapetty experiencing more small-scale debts and Anchuthengu showing a greater concentration of high-value debts.

Objective-2. To analyse the determinants of female work participation among fisherfolk households in the study area.

- Female work participation is relatively low across the studied fishing communities, with significant regional disparities. Women in Thiruvananthapuram show higher work participation compared to those in Malappuram. The unemployment trends are common among fisherwomen and are widespread. Results further show women are mainly engaged in daily wage labour, with very few involved in fishing-related or professional occupations.
- There is a pronounced gender disparity in employment within fishing communities. Men dominate fishing-related jobs while women's employment is limited and often informal. Among women who are employed, most work in low-paying, insecure jobs. It reflects restricted access to quality employment opportunities.

- Occupational patterns vary by location. Anchuthengu and Perumathura exhibit more diverse employment among women, while Ponnani and Palapetty show higher unemployment and fewer opportunities. Mobility and access to nearby job opportunities strongly influence the employment status of women. Therefore, areas with better mobility infrastructure show higher female workforce participation.
- The result shows that education plays a key role in enhancing work participation among women. Those with higher educational attainment are more likely to be employed, while women with little or no education remain largely unemployed. Marital status also influences work participation. Unmarried and separated women tend to have higher employment rates than married or widowed women.
- Family structure is another important factor that determines work participation. Women in joint families are more likely to work than those in nuclear families. It is likely due to shared household responsibilities. The employment status of the household head also influences female participation, with non-fishing family heads associated with higher work participation among women.
- Lower household income encourages women to enter the workforce. It indicates that economic necessity is a driving factor behind female employment. However, the ability to balance income and expenditure is not significantly linked to work status and suggests that other socio-cultural factors also play a role in determining female work participation.
- The religious background appears to influence female work participation. The result shows that Christian women show higher employment compared to Hindu and Muslim women. However, caste does not show a statistically significant association with employment status.
- The factor analysis highlights that gender wage gaps, household responsibilities, societal attitudes and limited mobility act as major barriers to

women's employment. Respect within the family and society, family and societal support, and access to government assistance significantly enhance female work participation.

- Logistic regression analysis identifies district of residence, family control and societal restrictions as significant determinants of female employment. The findings stress that non-economic factors like social norms, mobility, and support systems play a crucial role in shaping the work participation of women in fishing communities.

Objective-3. To identify the constraints faced by female fisherfolk in work participation.

- Fisherwomen face a wide range of constraints that limit their participation in economic activities. Socio-cultural, economic, health and institutional barriers hinder the work participation of female fisherfolk. Traditional gender roles and domestic responsibilities significantly restrict the ability of fisherwomen to engage in paid work, especially among those living in nuclear families and married women who shoulder greater household burdens.
- Low levels of education among fisherwomen and their parents further reduce access to employment. Some women view the lack of nearby job opportunities, household chores, cultural traditions and religious norms as major restraints to their workforce participation.
- Regional and religious differences also influence the work participation of female fisherfolk. Fisherwomen in more traditional communities are less likely to be employed. In terms of religion, Christian women tend to show higher employment levels compared to Hindu and Muslim women. It suggests that religious affiliation may affect economic engagement.
- Economic constraints such as limited income, high expenditure and restricted access to credit and markets hinder the ability of women to sustain employment. Employment is more common among women from lower-

income households. It reflects that economic need is a key driver of work participation. No significant association was found between family debt and the work status of women, implying that debt alone does not determine employment decisions.

- Health problems are a significant barrier to the work participation of female fisherfolk. Poor health limits the ability of women to work and adds to household financial strain. Access to healthcare and safe working conditions is vital for enabling greater work participation.
- Institutional challenges, including a lack of awareness about legal rights, welfare schemes and family support programs, reduce the chances of women entering or remaining in the workforce. Awareness was found to be significantly associated with employment status. It shows that better-informed women are more likely to work. However, the use of welfare schemes did not show a significant link with employment and suggested gaps in design or outreach.
- Perceptions of skill levels also impact the work participation of female fisherfolk. Women who rate their skills higher are more likely to be employed. Unsupportive family attitudes were shown to discourage work participation, whereas family encouragement strongly correlated with higher work participation.
- Women overwhelmingly believe that the economic conditions of their parents or husbands influence their decision to work more than their educational backgrounds. This shows that female work participation is largely driven by necessity rather than empowerment. It underlines the need for structural changes to enable opportunity-driven employment.

Objective-4. To analyse female work participation and the extent of gender disparity in work participation within the fishermen community in Kerala.

- Gender disparity remains a serious concern in India and persists in areas such as education, employment, health and political participation. Women face greater obstacles in entering and remaining in the workforce due to cultural norms, limited job access and lack of institutional support.
- Female fisherfolk empower the fisheries sector through vending processing and small-scale activities. Their earnings are lower than men due to the informal nature of their work and limited access to profitable markets and resources.
- The perception among respondents that men are paid more, preferred for jobs and considered suitable for certain types of work highlights the widespread gender bias present in employment opportunities.
- The result shows that within families women experience unequal treatment in food distribution, education, asset ownership, decision-making and social participation. These biases affect their well-being and reduce their social and economic value.
- Gender-based comparisons show women perceive lower control over income, assets and movement. Women also report less access to skills and job opportunities. Similarly, men report higher involvement in politics and professional spaces. These differences vary by location and are shaped by regional social norms.
- Respondents report that men receive special treatment at workplaces. This perception varies across regions and occupations. Fishing-related jobs show the highest level of perceived male preference compared to daily wage and business jobs.
- Employment status significantly influences perceptions of family treatment. Women who are employed feel less discrimination in areas like education, asset ownership and decision-making. Employment appears to reduce perceptions of bias and improve self-worth.

- Unemployed women are more likely to believe that men get higher wages, are preferred by employers and are more suited to certain jobs. This shows that limited exposure and low economic independence can reinforce gender stereotypes.
- Factor analysis identified two major sources of perceived gender disparity. The first relates to socio-economic support and empowerment. The second reflects traditional norms and gender bias. Women who are employed feel more empowered and supported in society.
- Regression analysis confirmed that employment increases socio-economic empowerment. Employed women gain more respect, decision-making power and feel more control over resources. The effect is more significant among women than men due to existing inequalities in work participation.
- Therefore, the results show that gender disparities are closely tied to employment status. Women face significant challenges due to educational gaps, family responsibilities and social norms. Reducing these barriers is key to empowering women in fishing communities.
- Work participation plays a major role in reducing gender disparity. Employed women report higher respect, better family support and stronger roles in decision-making. Enhancing education, skills and supportive work environments can improve gender equity.

Objective-5. To evaluate the awareness, accessibility and utilisation of government support programmes among female fisherfolk in the study area.

- Government programmes play an important role in improving the lives of fisherfolk by providing support in areas like training, financial assistance and infrastructure. Special programmes have been introduced to empower women in fishing communities and the success of these schemes depends on how well they are known and used by the beneficiaries.

- Most fisherwomen are aware of government schemes related to fisheries scholarships, housing insurance and old age support. The result shows that awareness varies between individuals and regions due to differences in education, location and participation in community activities. Women who are employed show higher awareness of government programmes compared to those who are not working. This shows that access to information supports the engagement of women in economic activities.
- Although many women are aware of government schemes the actual use of these programmes remains low. Employed and unemployed women show similar patterns in using the government schemes and the difference is not statistically significant. Lack of access to information, complicated procedures and political bias were reported as reasons for dissatisfaction with the schemes.
- Women who attended skill training programmes reported higher levels of acquired skills. This shows that such programmes have helped to improve specific abilities even if overall skill comparison with men has not changed significantly.
- Most fisherwomen are not satisfied with government schemes. They believe the schemes do not reach deserving people or less developed areas and that political partiality affects fair distribution. These issues reduce trust in the schemes and limit their impact on the lives of women.
- Awareness is found to be an important factor influencing the work participation of female fisherfolk. Women with greater awareness are more likely to engage in employment. On the other hand utilisation, attendance and satisfaction with government programmes do not show any significant impact on work participation. This means just attending or being satisfied with a programme is not enough if women are not fully aware of its benefits and how to access them.

- Women with higher education levels show greater awareness of schemes compared to those with less education. Community engagement also strongly supports awareness. Women who take part in social activities are more informed about available government support. Women from certain regions have higher awareness than those from other areas.
- Increased awareness is more effective than simply offering programmes. The focus should be on making information accessible and relevant at the local level. Better communication and community involvement are needed to ensure schemes reach the right people and help to reduce gender inequality.

10.2. Discussion of Findings

The findings of the study provide strong empirical support for the integrated theoretical and conceptual framework adopted to analyse gender disparity in work participation among fisherfolk in Kerala. The results reveal that female work participation is shaped by a complex interaction of human capital, household relations, structural labour market conditions, socio-cultural norms, and institutional factors, as proposed in the conceptual framework. Rather than being determined by a single factor, women's participation in work reflects the combined influence of economic necessity, educational attainment, family dynamics, cultural expectations, and access to supportive institutions.

Consistent with human capital theory (Becker, 1964), the results show that education plays a significant role in enhancing female work participation. Women with higher educational attainment are more likely to be employed, while those with little or no education face higher levels of unemployment. This confirms the theoretical expectation that investment in education increases employability and access to work opportunities. However, the concentration of educated women in low-paying and informal jobs indicates that while education improves the likelihood of participation, it does not necessarily translate into access to high-quality or secure employment. This pattern reflects labour market segmentation, where women's work is confined to

secondary labour markets characterised by low wages, limited job security, and restricted mobility.

The strong influence of household structure and family control on female work participation supports household bargaining and gender relations perspectives. The finding that women in joint families are more likely to work suggests that shared domestic responsibilities can reduce care burdens and facilitate labour market engagement. Conversely, strong family control and limited decision-making autonomy significantly reduce women's likelihood of participating in paid work, as confirmed by the logistic regression results. These findings align with Kabeer's emphasis on agency and with bargaining models that highlight how women's access to resources and intra-household power shape their economic choices. Women's work participation is therefore not only an economic decision but also a reflection of their relative power and autonomy within the household.

Socio-cultural norms and traditional gender roles emerge as major constraints on female work participation, consistent with social role theory and theories of gendered division of labour. The concentration of women in post-harvest, processing, and casual wage activities reflects socially constructed expectations regarding appropriate work for women. The perception that men are more suitable for certain jobs, are preferred by employers, and receive higher wages highlights the persistence of gender bias in employment. These findings show how cultural norms and community expectations restrict women's occupational choices and reinforce occupational segregation, thereby sustaining gender disparities in work participation.

Regional differences in female work participation and employment opportunities further support the structural dimension of the conceptual framework. Higher participation rates in Thiruvananthapuram compared to Malappuram reflect variations in labour market opportunities, mobility, and access to infrastructure. Areas with better transport connectivity and proximity to employment centres exhibit higher female work participation, confirming the importance of structural and spatial factors in shaping women's employment outcomes. These findings are consistent with labour

market segmentation perspectives, which emphasise the role of regional development and market access in determining the availability and quality of employment.

Economic necessity emerges as a major driver of female work participation, as women from lower-income households are more likely to enter the workforce. This finding suggests that much of women's employment in fishing communities is necessity-driven rather than opportunity-driven. While this supports the role of economic push factors, it also indicates that female work participation in this context does not necessarily reflect empowerment in a substantive sense. This pattern is consistent with Sen's capability approach, which distinguishes between participation driven by constrained choices and participation based on expanded freedoms and opportunities. The results suggest that many women enter the workforce out of compulsion rather than as a result of enhanced capabilities.

At the same time, the study provides strong evidence that female work participation contributes to socio-economic empowerment, in line with Kabeer's empowerment framework. Employed women report higher levels of respect, greater decision-making power, and increased control over resources within the household and community. Regression results further confirm that employment significantly enhances socio-economic empowerment, particularly for women. This supports the conceptualisation of work participation as both an outcome of empowerment and a pathway to further empowerment. The reduction in perceived gender bias among employed women also suggests that economic participation can challenge traditional gender norms and improve women's social status.

The analysis of constraints further supports the role of socio-cultural and institutional barriers in limiting female work participation. Domestic responsibilities, health problems, limited mobility, and unsupportive family attitudes significantly restrict women's ability to engage in paid work. These findings are consistent with social role theory, which highlights the centrality of unpaid care work in shaping women's labour market outcomes. Health-related barriers further underscore the vulnerability of women in fishing communities and the importance of access to healthcare and safe working conditions as enabling factors for sustained employment.

The findings related to government support programmes highlight a critical gap between awareness and effective utilisation. While awareness of schemes is significantly associated with higher work participation, actual utilisation and satisfaction with programmes do not show a significant impact on employment outcomes. This suggests that information and awareness are more important enabling factors than mere programme availability. From a capability and empowerment perspective, access to information enhances women's ability to make strategic choices and to navigate institutional systems. However, low levels of utilisation and dissatisfaction with schemes point to institutional and governance challenges, including procedural complexity, political bias, and limited outreach, which reduce the effectiveness of policy interventions.

10.3. Policy Suggestions

Based on the findings of the study, several policy suggestions can be proposed to address gender disparity in work participation among the fishermen community:

- Design and implement skill development programmes specifically tailored to fisherwomen, concentrating on local employment opportunities, market-oriented training and entrepreneurship.
- Improve local employment infrastructure in fishing villages by establishing women-friendly workspaces, fisheries cooperatives and micro-enterprises. Special focus should be given to providing job opportunities within or near communities to reduce mobility constraints.
- Expand access to education and vocational courses for girls and women in fishing communities. Introduce flexible adult education programmes to bridge educational gaps and enable women to pursue further studies or skilled work.
- Implement monitoring mechanisms at the community level to ensure equal pay for equal work. Establish wage transparency in informal sectors like fish vending and processing, where wage disparities are common.

- Develop targeted awareness campaigns using local media and grassroots organisations to inform fisherwomen about existing government schemes. Utilise community centres and local leaders as information hubs.
- Streamline the procedures and documentation required to access welfare schemes by introducing single-window systems, mobile outreach units and community volunteers trained to assist in application processes.
- Introduce community-based childcare, eldercare and shared domestic services to reduce the household burden on women. It enables them to participate in economic activities.
- Establish local health outreach and wellness clinics focusing on the specific health needs of fisherwomen. It includes reproductive health, occupational health and regular check-ups to improve their physical ability to work.
- Invest in infrastructure and livelihood opportunities in backward coastal regions to reduce regional inequalities in income, assets and access to basic facilities.
- Mandate the participation of women in fisheries cooperatives, local governance bodies and decision-making committees to ensure their voices influence local economic and social development planning.
- Conduct regular gender-sensitisation workshops for men and community elders to challenge traditional views on women's roles. Promote community dialogue and role models who support female employment.
- Set up a gender-sensitive monitoring system to evaluate the effectiveness of interventions over time.

10.4.Scope for Future Research

The study provides valuable insights into gender disparity in work participation among the fishermen community, yet several avenues for future research could further enrich understanding and contribute to policy formulation and implementation.

- Conduct longitudinal studies to track changes in gender disparity over time within the fishing community. Long-term data collection can reveal trends, identify factors influencing gender dynamics and assess the effectiveness of interventions aimed at reducing disparities.
- Quantitative findings with qualitative research methods such as interviews, focus groups and case studies to explore the lived experiences and perspectives of fisherwomen.
- Undertake comparative analyses across different geographic regions and cultural contexts to understand variations in gender disparity within the fishing industry. Comparing communities with varying levels of development, policy interventions and social norms can provide valuable lessons for effective gender-sensitive programming.
- Evaluate the impact of existing government policies and interventions on gender equity within the fishing sector. Assessing the outcomes of specific programs, identifying successful strategies and understanding implementation challenges can inform evidence-based policy formulation and targeted interventions.
- Adopt intersectional approaches to examine how factors such as ethnicity, socio-economic status and geographical location intersect with gender to influence work participation among fisherfolk.
- Explore the role of technology and innovation in promoting gender equity and enhancing economic opportunities for fisherwomen. Research on the adoption of digital tools, value-added processing techniques and sustainable fishing

practices can identify pathways for empowering women and reducing gender disparities in the fishing industry.

- Engage fisherwomen as active participants in the research process through participatory action research approaches.

10.4. Conclusion

The present study examined the economic and social conditions of fisherfolk with a special focus on the work participation of women. The study was conducted in selected coastal regions of Malappuram and Thiruvananthapuram districts. The study aimed to identify the extent of gender disparity, the role of women in the fisheries sector, the constraints they face and the influence of government interventions on their work participation and empowerment. The living conditions of the fishing community were modest with limited access to durable households. Education levels were generally low with many people completing only primary or secondary schooling. Although illiteracy was low there remained a lack of higher education among both men and women. Therefore, a clear gender gap in employment was observed. Men were more active in fishing and related jobs while women faced higher unemployment and were concentrated in daily wage or informal work. The differences in asset ownership, income levels and occupational patterns revealed the economic vulnerabilities and gender disparities in these coastal households.

The involvement of women in economic activities was limited and varied significantly across the two study areas. Work participation of female fisherfolk was influenced by factors such as education, marital status, family type and the employment of the household head. Unmarried and separated women participated more in work than married women. Those in joint families and from households with non-fishing occupations had better chances of employment. Lower household income encouraged work participation among women while religious and cultural factors also shaped their employment patterns. The analysis confirmed that social and economic contexts influenced the ability of women to work and contribute to their household economy.

Gender roles and domestic responsibilities restricted the ability of women to engage in paid employment. Cultural traditions, limited mobility and access to work determine the employment opportunities of fisherwomen. Health issues, lack of education and poor awareness of welfare schemes were major barriers. Though many welfare schemes existed, few women were aware of them. Women who received family support or rated their skills highly were more likely to be employed. Employment was seen as a necessity driven by poor household conditions rather than empowerment. The study highlighted that non-economic factors including social attitudes and family dynamics played an important role in shaping the employment status of fisherwomen.

Employed women expressed higher levels of respect within the family and society and better access to household resources. The study found that socioeconomic support and traditional norms were the two major factors shaping perceptions of gender disparity. Employment had a significant positive effect on empowerment. Traditional beliefs and cultural restrictions remained strong. Increased work participation of women could help reduce gender disparities and promote economic and social inclusion in fishing communities.

The study found that employed women are more aware of government schemes than unemployed women. Barriers such as lack of information, bureaucratic hurdles and political bias reduced the effectiveness of these interventions. Satisfaction with schemes was low and many women believed that the benefits did not reach deserving people. Skill development programmes were found to improve the specific abilities of women though their overall impact on work participation was limited. The findings showed that awareness was the key factor influencing work participation. Policies should therefore focus on improving awareness, education and local outreach to ensure that support reaches women who need it the most.

This study concluded that gender disparity in work participation among fisherfolk in Kerala is influenced by various socioeconomic, cultural and institutional factors. Although employment has the potential to empower women and reduce inequality, structural barriers continue to limit their economic participation. Creating

inclusive community environments and strengthening institutional support can promote gender equity and improve the socio-economic well-being of fisherwomen in Kerala. Policy measures must go beyond the provision of schemes and ensure that women are informed, supported and empowered to participate meaningfully in the workforce.

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APPENDICES

Appendix 1

AN ECONOMIC ANALYSIS ON GENDER DISPARITY IN WORK PARTICIPATION

AMONG FISHERMEN COMMUNITY

Interview Schedule

I General Details

- 1 Place Phone No:
- 2 Nature of family: Nuclear/Joint
- 3 Religion: Hindu/Muslim/Christian/Others
- 4 Caste: General/OBC/OEC/SC/ST /Others
- 5 Category: BPL/APL and OBC Non-Creamy Layer/ General Non-Creamy Layer
- 6 What is the colour of the ration card?
- 7 Family Details of Respondent

Head(H)/ Members(M)	Age	Gender	Marital Status	Education	Occupation		Monthly Income(Rs)	Remark
					FT	PT		
1 Respondent								
2								
3								
4								
5								
6								
7								
8								

8. Educational Qualification of Father (fill if not mentioned in question 7)
9. Educational Qualification of Mother (fill if not mentioned in question 7)

II Gender Disparity in Work Participation among Fisher Folk

10. What are the factors instrumental to your work participation?

Earning livelihood/for passion/ absence of male member in the family/others (specify)

11. Nature of fish work you (or your family) are engaged in:
 Fishing/Fish Marketing / Fish cutting / Fish cleaning/ fish processing /
 Others (white collar/ business/sales /agriculture/ labour /self-employment)
12. How many hours, do you work per day? <
- 13, Journey details of work if any:
 Time of leaving the houseTime of returning house....., Time of travelling.....
14. Facilities available in the market: Shed/ Toilet /Water for cleaning/Storage / Waste disposal
15. Name the types of work women in the locality are engaged in:
16. If fish selling; category of selling: Fish wholesale/ platform marketing/ petty shops/door-to-door selling / any other (specify)
17. Job Satisfaction Level (on a scale of 1-5): HS / S /MS /DS /HDS
18. Satisfaction Level of Salary or wage: HS / S /MS /DS /HDS
19. Rate the working condition or environment (on a scale of 1-5): VG / G /MG / B / VB
20. Harassment in the job (on a scale of 1-5): VH / H /A / L / VL
21. Special treatment to males in the work?(on a scale of 1-5): VH / H /A / L / VL

	Strongly Agree	Agree	Nuetral	Disagree	Strongly Disagree
Higher wage is given to men only	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employers prefer men only	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perception that some jobs can do by men only	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. Rate the following Statement (related special treatment of males in the work)

23. Do you find any preferential treatment to males in the family? Yes/No

24. Rate the statement on preferential treatment to males in the family

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Preferential treatment is there in Food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential treatment in Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential treatment in Ownership of assets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential treatment in Decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential treatment in Family functions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential treatment in Other factors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Rate the following Statements (What are the reasons for preferential treatment?)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
There is patriarchy in the family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religion influences all family matters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customs and Tradition affect all family matters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other factors affect family matters (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Rate the following statement related to work participation

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have Marriage and related responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i have more Household chores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the more duty of Child rearing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is Absence of suitable jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Mobility of women in the locality (on a scale of 1-5): VH / H / A / L / VL
28. My work skills compared to men (on a scale of 1-5): VH / H / A / L / VL
29. Suitable jobs nearby (on a scale of 1-5): VH / H / A / L / VL
30. Rate the following statement on women in the family and society

Decision-making power	VH	H	A	L	VL
Respect in the family					
Respect in the society					
Participation in political activities					
Participation in social activities					
Societal status					
Freedom of Mobility					
Control on asset					
Control on Income					
Control of Household amenities					
Special skill is acquired.					
Job opportunities nearby					
Religion restrictions					
lack of traditional dry fish business					
restriction due to tradition and culture					
Family Support					
Support from Society					
Knowledge about your work					
Government Support					
Depending others					
Household responsibilities					
Traditional attitudes					
Gender discrimination					

III Impact of Female Work Participation on Socio-economic Aspects

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect in Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participation in political activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participation in social activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Societal status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education of family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freedom of Mobility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control on asset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control on Income	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Household amenities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect in the society	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personality Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skill Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. Female work participation improves the following aspects
Others (specify)

32. Negative impact of low work participation: Rank the following factors

Low Economic condition: SA / A/N/ D / SD

Less household facilities: SA / A/N/ D / SD

Increase the vulnerability: SA / A/N/ D / SD

No savings: SA / A/N/ D / SD

No assets: SA / A/N/ D / SD

33. Work participation does not increase with education; your scale for the reasons:

Not interested in the course undergone: SA / A/N/ D / SD

No special skill is acquired: SA / A/N/ D / SD

No job opportunities nearby: SA / A/N/ D / SD

Household responsibilities: SA / A/N/ D / SD

Traditional attitudes: SA / A/N/ D / SD

- 34. Work participation of women depends on parental education: Yes /No
- 35. Work participation of women depends on husband’s education: Yes/No
- 36. Work participation of women depends on parental economic condition: Yes/No
- 37. Work participation of women depends on the husband’s economic condition: Yes/No
- 38. you have availed any support for your work? Yes/No
- 39. If yes, nature of support:

	Very High	High	Moderate	Low	Very Low
Financial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Group organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better marketing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IV Constraints for female work participation

- 40. If you are not working, rank your constraints for this

	1	2	3	4	5	6	7	8
Low education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lack of any jobs nearby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
household chores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tradition and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lack of traditional dry fish business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. Are you working previously? Yes/ No
42. If yes, in which sector? Government / Private/ Self-employment /Others (specify)
43. Reasons for quitting the job? No family support/ Less salary/ Less working facilities/ Gender discrimination/ Harassment/Others (specify)
44. Do you have any difficulties with not having a job? Yes / No
45. If yes, what are the difficulties? No own income /depending on others / no respect from family / no respect from society/others (specify)
46. What is the attitude of your family towards your job?
Encouraging / Discouraging
47. Do you have any suggestions to improve the work participation of females in the locality?
Family support/ Provide job opportunities/Provide job-oriented education/More facilities in workplace/ govt. Support/others (specify)

V Policies and measures for reducing gender disparity in work participation

48. Which of the following schemes have you availed?
a) Saving - Cum - Relief- Scheme/ Group Accident Insurance Scheme/Free Housing Scheme/ Subsidy for purchase of outboard motor (OBM) / Subsidy for Kerosene, high-speed diesel(HSD) oil/ Others (specify).....
b) Amount of Subsidy (Rs.):
49. Details of Social Security Provided by the Government
Old age Pension /Medical Expenses for Disabled/Fishermen/Others (specify)
Amount of Benefit received (Rs): Amount utilized (Rs):
The unutilized amount(Rs):.....If unutilized reason for this.....
50. Level of awareness of job/welfare schemes: V.H H A L
- VL
- | | | |
|------------------------|---|--|
| Housing scheme | : | |
| Job Training | : | |
| Women oriented schemes | : | |
| Old age schemes | : | |

Fisheries scholarships :

Insurance :

Financial Sources :

51. Did you attend any skill-oriented programme? Yes/No

52. If yes, specify its benefits.

53. Do you know any governmental measures for raising female work participation?
Yes/No

54. If Yes, specify.....

55. Are you satisfied with existing government schemes for increasing female work participation? Yes/No

56. If no, give reason: Low awareness/ not reaching the less developed areas/not reaching the deserving people/ political partiality/ not interested in the scheme/others (specify).....

VI Household Facilities

57. Ownership of House: owned /rented

58. If rented specify the rent per month in Rs thousand:

59. Nature of your house: Thatched /Tiled/ concrete/Both Thatched and tiled/ Both Tiled/concrete

60. House area in Sq.ft: Less than 200/ 201-400/ 401-600/ 601 &above

61. Household amenities: Electricity /Drinking Water/Gas Connection/Toilet facilities/bedroom

62. Other Facilities: Mobiles/TV/ Fridge/Washing Machine/Vehicle (two Wheeler, Three wheeler, Car/Tempo)/others

63. Ownership of Land (in Cents):

64. Do you have any problems with your house during monsoon? Yes/No

65. If Yes, specify

VII Income and Expenditure of the Family

66. Monthly family expenditure (in Rs thousand)

67. Monthly family income(in Rs thousand):

- (a) Monthly family income during peak season
- (b) Monthly family income during the slack season:
68. Can you balance your income and expenditure: Yes/No
69. Do you have debt? Yes/No. If yes, amount (Rs thousand)
70. Did you take a loan? Yes/No
71. If yes, give details like the bank name.....; rate of interest.....;
- Amount of loan (Rs thousand) taken: Outstanding balance amount (Rs thousand) of loan.
72. Did you get the loan in time? Yes/No
73. What are the difficulties faced by you in getting the loans?
74. For what purpose the loan is used? House construction/ business/purchase of fishing materials/marriage/education/treatment/Others (specify)
75. Do you have savings? Yes/No
76. If yes, where did you deposit? Bank/society/ Blade Company/ friends/business/lending/others
77. Do you consult with your husband the matters related to you?
- Never/occasionally/frequently/ Regularly
78. Which type of fisherwomen are you?
- Housewife/ Housewife and self-employed/ Housewife and Wage earners
79. Women have socio-economic awareness of the locality: SA / A/N/ D / SD
- 80 Whether you have general Awareness of the following :
- a) Legal Measures: Yes/No
- b) Family welfare measures: Yes/No
- c) Welfare measures of the women: Yes/No
81. How many educated women do not work in your family?
82. How many members of your family work after marriage?
83. How many school dropouts are in your family?

VIII Health Condition of family

84. State whether you /any family member was affected by any disease. Yes / No
85. If yes, name of the diseases: Frequent Fever and Headache/ Kidney / Stroke / Paralysis/ Skin /Anemia / other diseases (specify)
86. Place of treatment: Local PHC/ Private Hospital/ Government Hospital/both govt. And private/ Others (specify)
87. How much amount the family spend for treatment per month (Rs thousand)?

IX Perspectives of men in the family (for men only)

88. Rate the following statement on men in the family and society

Decision-making power	VH	H	A	L	VL
Respect in the family					
Respect in the society					
Participation in political activities					
Participation in social activities					
Societal status					
Freedom of Mobility					
Control on asset					
Control on Income					
Control of Household amenities					
Special skill is acquired.					
Job opportunities nearby					
Religion restrictions					
lack of traditional dry fish business					
restriction due to tradition and culture					
Family Support					
Support from Society					
Knowledge about your work					
Government Support					
Depending others					
Household responsibilities					
Traditional attitudes					
Gender discrimination					

Appendix 2
Table 1

Do you have any suggestions to improve the work participation of females in the locality?				
	Frequency	Per cent	Valid Percent	Cumulative Percent
Family support	62	15.6	15.6	20.6
Family support; govt. support	18	4.5	4.5	25.1
Family support; More facilities in the workplace	1	.3	.3	25.4
Family support; More facilities in work workplace; govt. support	5	1.3	1.3	26.6
Family support; Provide job opportunities	39	9.8	9.8	36.4
Family support; Provide job opportunities; govt. support	5	1.3	1.3	37.7
Family support; Provide job opportunities; More facilities in the workplace	11	2.8	2.8	40.5
Family support; Provide job opportunities; More facilities in work workplace; govt. support	2	.5	.5	41.0
Family support; Provide job opportunities; Provide job-oriented education	29	7.3	7.3	48.2
Family support; Provide job opportunities; Provide job-oriented education; govt. support	2	.5	.5	48.7

Family support; Provide job opportunities; Provide job-oriented education; More facilities in the workplace	18	4.5	4.5	53.3
Family support; Provide job opportunities; Provide job-oriented education; More facilities in the workplace; govt. support	73	18.3	18.3	71.6
Family support; Provide job opportunities; Provide job-oriented education; More facilities in work workplace; govt. support; Nil	1	.3	.3	71.9
Family support; Provide job-oriented education	17	4.3	4.3	76.1
Family support; Provide job-oriented education; govt. support	4	1.0	1.0	77.1
Family support; Provide job-oriented education; More facilities in the workplace	7	1.8	1.8	78.9
Family support; Provide job-oriented education; More facilities in work workplace; govt. support	5	1.3	1.3	80.2
Govt. support	21	5.3	5.3	85.4
More facilities in the workplace	3	.8	.8	86.2
More facilities in work workplace; govt. support	2	.5	.5	86.7

Provide job opportunities	3	.8	.8	87.4
Provide job opportunities; govt. support	7	1.8	1.8	89.2
Provide job opportunities; More facilities in the workplace	1	.3	.3	89.4
Provide job opportunities; More facilities in work workplace; govt. support	1	.3	.3	89.7
Provide job opportunities; Provide job-oriented education	11	2.8	2.8	92.5
Provide job opportunities; Provide job-oriented education; govt. support	3	.8	.8	93.2
Provide job opportunities; Provide job-oriented education; More facilities in the workplace	4	1.0	1.0	94.2
Provide job opportunities; Provide job-oriented education; More facilities in work workplace; govt. support	3	.8	.8	95.0
Provide job-oriented education	7	1.8	1.8	96.7
Provide job-oriented education; govt. support	12	3.0	3.0	99.7
Provide job-oriented education; More facilities in the workplace	1	.3	.3	100.0
Total	398	100.0	100.0	

Table 2 Gender Disparity in Region Wise: Female

Statement	Anchuthengu			Palapetty			Ponnani			Perumathura		
	Mean	N	Std. Deviation	Mean	N	Std. De	Mean	N	Std. Dev	Mean	N	Std. Deviation
Decision-making power	3.7500	88	1.04221	3.0341	88	1.25441	2.6336	131	1.44225	3.7143	91	1.00317
Respect in the family	4.1477	88	.87808	3.2727	88	1.39562	2.8015	131	1.53131	4.2198	91	.85378
Respect in the society	3.9773	88	1.05020	3.2273	88	1.37905	2.7634	131	1.48237	4.1538	91	.93003
Participation in political activities	3.2159	88	1.55696	2.5000	88	1.31306	2.4275	131	1.40346	2.9780	91	1.60539
Participation in social activities	4.1023	88	1.00619	2.9886	88	1.29982	2.4656	131	1.38840	4.2198	91	.94048
Societal status	3.9432	88	.99837	2.9432	88	1.23510	2.3130	131	1.24705	4.0000	91	.84327
Freedom of Mobility	4.1023	88	.89750	2.9091	88	1.31862	2.3206	131	1.28463	3.7033	91	.93683
Control on asset	3.9318	88	1.22047	2.7045	88	1.24253	2.1374	131	1.18817	3.8022	91	1.16638
Control on Income	4.0227	88	1.13439	2.7386	88	1.31738	2.1603	131	1.20139	3.8242	91	1.13131
Control of Household amenities	4.1818	88	.97728	2.7500	88	1.22474	2.1756	131	1.21200	4.0440	91	.96508
Special skill is acquired	3.7500	88	1.33261	2.3523	88	1.11458	2.0534	131	1.11157	3.0769	91	1.47747
Job opportunities nearby	3.4773	88	1.44618	2.6591	88	1.27655	2.0153	131	1.08120	3.0879	91	1.47308
Religion restrictions	3.2841	88	1.56064	2.2841	88	1.07156	2.0458	131	1.08033	2.9890	91	1.43368
lack of traditional dry fish business	4.0568	88	1.08657	2.8977	88	1.29579	2.1908	131	1.20329	4.1099	91	.94810

restriction due to tradition and culture	3.4886	88	1.43033	2.3864	88	1.06600	2.0916	131	1.15326	3.2418	91	1.39316
Family Support	4.2045	88	.96083	2.9091	88	1.30988	2.3435	131	1.30544	4.1538	91	.80171
Support from Society	4.1477	88	.94126	2.8864	88	1.23579	2.2824	131	1.26658	4.1099	91	.79513
Knowledge about your work	4.3182	88	.81007	2.8864	88	1.19800	2.2061	131	1.17485	4.1099	91	.79513
Government Support	4.0909	88	1.06821	2.7159	88	1.13410	2.1908	131	1.19044	3.6593	91	1.17587
Depending others	4.0227	88	1.03920	2.8068	88	1.07059	2.2366	131	1.20149	3.8791	91	.71235
Household responsibilities	4.2159	88	.88990	2.8864	88	1.20756	2.3282	131	1.29759	4.0000	91	.86923
Traditional attitudes	3.5682	88	1.42066	2.4091	88	1.16102	2.0611	131	1.12835	3.2418	91	1.35270
Gender discrimination	3.0682	88	1.52221	2.4432	88	1.11271	2.4580	131	1.29055	2.9121	91	1.46552

Table 2 Gender Disparity in Region Wise: Male

Statement	Anchuthengu			Palapetty			Ponnani			Perumathura		
	Mean	N	Std. Deviation	Mean	N	Std. Dev.	Mean	N	Std. Dev.	Mean	N	Std. Deviation
Decision-making power	3.3182	88	.76632	3.2955	88	.64610	3.1527	131	.47187	3.2088	91	.56797
Respect in the family	3.5000	88	.84418	3.4318	88	.78485	3.1832	131	.52333	3.6044	91	.90528
Respect in the society	3.5114	88	.85761	3.3409	88	.74102	3.1603	131	.55215	3.6044	91	.89292
Participation in political activities	3.1023	88	.99470	3.1591	88	.81490	3.0916	131	.56091	2.9780	91	.95427
Participation in social activities	3.3750	88	.92615	3.2386	88	.69471	3.1450	131	.54239	3.5714	91	.85820
Societal status	3.4545	88	.78651	3.2727	88	.72282	3.1221	131	.51175	3.5275	91	.82112
Freedom of Mobility	3.4432	88	.85578	3.2386	88	.69471	3.1374	131	.53728	3.4725	91	.75042
Control on asset	3.2045	88	.93660	3.2727	88	.72282	3.1374	131	.53728	3.2857	91	.94617
Control on Income	3.1591	88	.95756	3.2386	88	.75801	3.1298	131	.53201	3.2857	91	.93435
Control of Household amenities	3.2386	88	.85761	3.2386	88	.71107	3.1298	131	.53201	3.3297	91	.88261
Special skill is acquired	3.0909	88	.97834	3.0455	88	.75672	3.0382	131	.54638	2.7912	91	.96051
Job opportunities nearby	3.1477	88	.95339	3.1818	88	.76632	3.0076	131	.54767	2.7912	91	1.05952
Religion restrictions	3.0909	88	.97834	2.9886	88	.78043	3.0000	131	.54065	2.6923	91	1.00766
lack of traditional dry fish business	3.4432	88	.81449	3.2159	88	.74970	3.0611	131	.53717	3.6044	91	.89292
restriction due to tradition and culture	3.1364	88	.92453	3.0114	88	.75039	3.0000	131	.54065	2.7802	91	.96381
Family Support	3.4773	88	.83014	3.2614	88	.73491	3.1221	131	.52657	3.5714	91	.89620
Support from Society	3.4545	88	.78651	3.2500	88	.71519	3.1221	131	.52657	3.5495	91	.85976

Appendix

Knowledge about your work	3.4659	88	.81578	3.2614	88	.73491	3.1069	131	.50003	3.5824	91	.88275
Government Support	3.2841	88	.77235	3.0795	88	.62920	3.0916	131	.53278	3.0000	91	.91894
Depending others	3.3409	88	.67613	3.1818	88	.61673	3.0992	131	.47806	3.3516	91	.62135
Household responsibilities	3.4091	88	.75256	3.2273	88	.69028	3.1221	131	.52657	3.5275	91	.79359
Traditional attitudes	3.0682	88	.94438	3.0568	88	.74830	3.0305	131	.53979	2.9231	91	1.03528
Gender discrimination	3.0795	88	.91251	2.9659	88	.74970	3.0000	131	.54065	2.6484	91	.97038

Table 3

Omnibus Tests of Model Coefficients							
		Chi-square		df		Sig.	
Step 1	Step	52.139		2		.000	
	Block	52.139		2		.000	
	Model	52.139		2		.000	
Model Summary							
Step	-2 Log likelihood		Cox & Snell R Square		Nagelkerke R Square		
1	459.023 ^a		.123		.170		
Hosmer and Lemeshow Test							
Step	Chi-square		df		Sig.		
1	8.246		8		.410		
Classification Table							
		Observed		Predicted		Percentage Correct	
				Working Status			
		No	Yes				
Step 1	Work Status	No	236	26	90.1		
		Yes	91	45	33.1		
	Overall Percentage					70.6	
Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Socioeconomic Empowerment and Support	.852	.128	44.633	1	.000	2.345
	Traditional Norms and Gender Bias	-.463	.121	14.732	1	.000	.629
	Constant	-2.202	.389	32.036	1	.000	.111

The omnibus tests of model coefficients indicate significant associations between the predictor variables and the outcome variable (Work Status), with a chi-square value of 52.139 and a significance level of .000 for Step 1. The model summary reveals that the variables

included in the equation (Socioeconomic Empowerment and Support, Traditional Norms and Gender Bias) collectively explain a notable portion of the variance in Work Status, as evidenced by the Nagelkerke R Square of .170.

The classification table further illustrates the predictive accuracy of the model, with an overall percentage of correct predictions reaching 70.6%. Specifically, the model correctly predicts 90.1% of cases where the Work Status is "No" (not employed) and 33.1% of cases where the Work Status is "Yes" (employed).

In terms of the variables in the equation, both Socioeconomic Empowerment and Support and Traditional Norms and Gender Bias demonstrate significant associations with Work Status. Socioeconomic Empowerment and Support exhibit a positive coefficient ($B = .852$, $p < .001$), indicating that higher levels of empowerment and support are associated with a greater likelihood of being employed. Conversely, Traditional Norms and Gender Bias display a negative coefficient ($B = -.463$, $p < .001$), suggesting that higher levels of traditional gender biases are associated with a decreased likelihood of being employed. The constant term also holds significance ($p < .001$), indicating its role in the logistic regression equation.

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.290	.084	.082	1.18649	1.375
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	51.103	1	51.103	36.301	.000
Residual	557.471	396	1.408		
Total	608.574	397			
Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.970	.073		40.517	.000
Work Status	.756	.125	.290	6.025	.000

