

**AN ANALYSIS OF FEMALE HEADED HOUSEHOLDS IN
KERALA: VULNERABILITIES AND COPING STRATEGIES**

Thesis submitted to the
University of Calicut
for the award of the Degree of
Doctor of Philosophy in Economics

By
JASNA N. M.

Under the supervision of
Dr. K.V RAMACHANDRAN
Professor (Rtd)
Department of Economics,
University of Calicut

**DEPARTMENT OF ECONOMICS
UNIVERSITY OF CALICUT
Dr JOHN MATTHAI CENTRE
ARANATTUKARA, THRISSUR**

SEPTEMBER, 2022



**DEPARTMENT OF ECONOMICS
UNIVERSITY OF CALICUT
Dr JOHN MATTHAI CENTRE
ARANATTUAKARA, THRISSUR**

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Dr. K.V. Ramachandran
Super vising guide
Professor, Rtd
Department of Economics
University of Calicut
Dr. John Matthai Centre
Aranattukara, Thrissur

Dr. Muneer Babu M
Co-Guide
Assistant Professor
Department of Economics
University of Calicut
Dr. John Matthai Centre
Aranattukara, Thrissur

Place: Thrissur

Date: September 2022



Declaration

I, **Jasna N. M.**, affirm that this thesis titled “**AN ANALYSIS OF FEMALE HEADED HOUSEHOLDS IN KERALA: VULNERABILITIES AND COPING STRATEGIES**” submitted to the University of Calicut for the award of the degree of **Doctor of Philosophy** in Economics is a bonafide record of research done by me under the guidance of Dr. K.V. Ramachandran, Professor (Retired), Department of Economics, University of Calicut, Dr. John Matthai Centre, Thrissur. I also declare that this thesis has not been submitted by me earlier for the award of any degree, diploma, fellowship, or other similar titles of recognition.

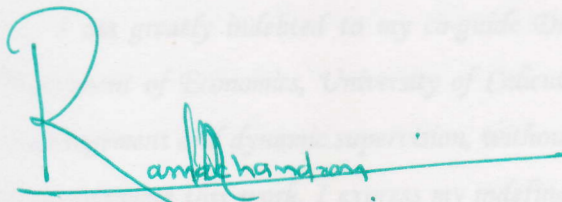
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Date: September 2022

Jasna N. M.

CERTIFICATE

This is to certify that the corrections are made in the thesis as per the suggestions made by the adjudicators and the contents of the thesis and the soft copy are the same.



Dr. K.V. Ramachandran
Supervising guide
Professor, Rtd
Department of Economics
University of Calicut
Dr. John Matthai Centre
Aranattukara, Thrissur

Dr. Muneer Babu M
Co-Guide
Assistant Professor
Department of Economics
University of Calicut
Dr. John Matthai Centre
Aranattukara, Thrissur

Place: Thrissur

Date: September 2022



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Contents

<i>List of Tables</i>	vii
<i>List of Figures</i>	xi
<i>List of Abbreviations</i>	xiii
<i>Abstract</i>	xv

Chapter 1

DESIGN OF THE STUDY.....	01 - 40
1.1 Introduction	02
1.2 Review of previous empirical studies	03
1.2.1 Female-headed households from different perspectives.....	03
1.2.2 Emergence of female headship across the world.	06
1.2.2.1 Studies on developing countries.	07
1.2.2.2 Studies from advanced countries	07
1.2.3 Factors responsible for female headship globally and regionally.....	09
1.2.3.1 Socio-economic factors.....	09
1.2.3.2 Demographic and cultural factors.....	12
1.2.4 Female headship and socio-economic vulnerability	13
1.2.4.1 Economic vulnerability.....	14
1.2.4.2 Social vulnerability	17
1.2.4.3 Psychological vulnerabilities	19
1.2.4.4 Female headship and poverty	20
1.2.4.5 Vulnerability from a gender perspective.....	22
1.2.5 Impact of male migration on left-behind women.....	22
1.2.5.1 An impact on household responsibilities	24
1.2.5.2 Impact on female autonomy and decision making	25
1.2.5.3 Empowerment and Mobility	26
1.2.5.4 Other social issues	27
1.2.6 Female-headed households and labour market participation	26
1.2.7 Female headship and welfare of children.....	31
1.3 Conclusion	33
1.4 Research Gap	34
1.5 Statement of the problem and research questions	35
1.6 Objectives	36
1.7 Hypothesis	37
1.8 Rationale and scope of the study	37
1.9 Data source and methodology.....	38
1.10 Limitations of the study.....	39
1.11 Chapter design	40

Chapter 2

THE CONCEPTUAL AND THEORETICAL

BACKGROUND OF THE STUDY41 - 54

2.1	Introduction.....	42
2.2	Conceptual framework on female headship vulnerability and coping strategies.....	42
2.3	Theories on the emergence of female-headed households	44
2.3.1	Theories on Population, unemployment, and migration	44
2.4	Theories on poverty and households inequality	44
2.4.1	Feminisation of poverty	44
2.4.2	Gender and cooperative conflict theory	46
2.5	Theories on psychological problems of female-headed household	46
2.5.1	The anomie theory and family structure	46
2.5.2	Psychological theory	47
2.5.3	The constructional Functional view	47
2.6	Theories on low social status and vulnerability	47
2.6.1	Social stratification theory	47
2.6.2	Micro structural theory	48
2.6.3	Bargaining theory.....	49
2.6.4	Capability approach	49
2.7	Sustainable Lively hood approach	51
2.8	Conclusion.....	53

Chapter 3

DATA SOURCE AND METHODOLOGY.....55 - 68

3.1	Introduction	56
3.2	Operational definitions	56
3.2.1	Female headed households.....	56
3.2.2	Households.....	57
3.2.3	Vulnerability	57
3.2.4	Empowerment	57
3.2.5	Coping strategies.....	57
3.3	Constructs and items related to vulnerability among female-headed households in Kerala.	58
3.3.1	Asset-based vulnerabilities of the household headed by women in Kerala	58
3.3.1.1	Psychological asset	58
3.3.1.2	Informational assets	58
3.3.1.3	Organizational assets	58
3.3.1.4	Material, financial and Human assets	59
3.4	Constructs and items related to empowerment among female-headed households in Kerala	59
3.4.1	Individual-level empowerment among female-headed households in Kerala.....	59

3.5	Constructs and items related to the coping strategies of the female-headed households.....	60
3.6	Data Sources	60
3.7	Sampling design	61
3.7.1	Primary data collection	61
3.7.2	Selection of the study area	61
3.7.3	Description of the study area.....	63
3.7.4	Selection of the ward.....	64
3.7.5	Survey Method	65
3.8	Statistical tools and software packages used for data analysis	66
3.9	Conclusion	67

Chapter 4

FEMALE-HEADED HOUSEHOLDS: AN OVERVIEW.....69 - 86

4.1	Introduction.....	70
4.2	Nature and causes of female headship	70
4.3	Household composition and female headship in India	71
4.4	Household composition and female headship in Kerala	73
4.5	Socio-economic characteristics of FHHs in Kerala	76
4.6	Female headship in Kerala leading issues	77
4.6.1	Marital disturbance (Widowhood, Divorce, and separation).....	77
4.6.2	Male migration and female headship	79
4.6.3	Trend in Emigration	82
4.6.4	Emigrants and inter-survey Change	83
4.6.5	The district-wise proportion of emigrants from Kerala	84
4.6.6	Remittance received from migration	84
4.6.7	Country-wise destination of emigrants from Kerala 2018	85
4.7	Conclusion and scope for the primary survey	86

Chapter 5

SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS HEADED BY WOMEN IN KERALA..... 87 - 126

5.1	Introduction.....	88
5.2	General profile of Kerala	88
5.2.1	Brief profile of the study area: Malappuram and Thrissur district	89
5.3	Causes for the Incidence of Female-Headed Households in the study area	91
5.3.1	Widowhood	93
5.3.2	Divorce/separation	93
5.3.3	Desertion	95
5.3.4	Wife of an unemployed and disabled spouse	96
5.3.5	Never married	96
5.4	Socio-economic and demographic characteristics of the FHHs.	97
5.4.1	Housing characteristics	107
5.4.2	Resources available to the Households	110
5.4.2.1	An Ownership of Land.....	110

5.4.2.2	Ownership of Livestock.....	111
5.4.2.3	Ownership of consumer durables	111
5.5	Distribution of the respondents based on education and marital status.....	112
5.6	Distribution of the Respondents based on age and Marital status	113
5.7	Distribution of the respondents based on family income and marital status.....	114
5.8	Distribution of the respondents based on earning members and marital status.....	115
5.9	Distribution of the respondents based on occupation and marital status.....	116
5.10	Distribution of the respondent based on household headship and decision making	117
5.11	Conclusion	124

Chapter 6

INCOME AND ASSET VULNERABILITIES OF THE HOUSEHOLD HEADED BY WOMEN IN KERALA.....127 - 150

6.1	Introduction.....	128
6.2	The context of vulnerability.....	128
6.3	Vulnerability among female-headed households.....	129
6.3.1	Income vulnerability among sampled households	130
6.3.2	Asset-based vulnerabilities of households headed by women	133
6.4	Factors of vulnerability among female-headed households in Kerala ...	142
6.5	Conclusion	148

Chapter 7

EMPOWERMENT OF HOUSEHOLDS HEADED BY WOMEN IN KERALA.....151 - 170

7.1	Introduction.....	152
7.2	Women empowerment	152
7.3	Women’s Empowerment Index framework	152
7.3.1	Personal level indicators	154
7.3.1.1	Self-fulfillment	155
7.3.1.2	Opinion on women’s economic role and attitude on girls’ education.....	156
7.3.1.3	Individual knowledge	157
7.3.1.4	Individual capacity	159
7.3.1.5	Personal autonomy	160
7.3.2	Relational level indicators.....	161
7.3.2.1	Group participation	161
7.3.2.2	Household decision-making and economic contribution.	163
7.3.3	Environmental level indicators	164
7.4	Conclusion.....	169

Chapter 8**THE COPING STRATEGIES ADOPTED AND THE EFFECT OF VULNERABILITY AMONG FHHs IN KERALA.....171 - 198**

8.1	Introduction.....	172
8.2	Section-1: Coping strategies adopted by the female-headed households in Kerala	172
8.2.1	Coping strategies of FHHs.....	172
8.2.1.1	Years of Headship and coping of FHHs in the study area	173
8.2.1.2	Presently living with	174
8.2.1.3	Formal and informal transfers received by the FHHs.....	175
8.2.1.4	Informal transfer received by the FHHs.....	176
8.2.1.5	Major sources of credit	177
8.2.1.6	Participation in the labour market.....	177
8.2.2	Conclusion	181
8.3	Section -2: The effect of vulnerability Among FHHs in Kerala on their empowerment and coping strategies.	182
8.3.1	Section – A: Co-variance based confirmatory factor analysis for the reliability and validity of research model building.	182
8.3.1.1	Assessment criteria of the CB-CFA models for final reliability and validity.....	183
8.3.2	Section – B: Co-variance Based Structural Equation Modeling techniques	192
8.3.2.1	SM.H1: Vulnerability among the female-headed households in Kerala influences coping strategies adopted by them	195
8.3.2.2	SM.H2: Vulnerability among the female-headed households in Kerala has a negative influence on their empowerment.	196
8.3.2.3	SM.H3: Coping strategies adopted by the female-headed households in Kerala have a positive influence on their empowerment	196
8.3.3	Explanations of R ² values	197
8.3.4	Conclusion	197

Chapter 9**SUMMARY OF FINDINGS AND CONCLUSION199 - 216**

9.1	Introduction.....	200
9.2	Brief overview of the study	200
9.3	Summary of findings.....	201
9.3.1	Objective -1- Socio-economic and demographic characteristics of the sampled households	201
9.3.2	Objective -2 - Income and asset vulnerability among female-headed households in Kerala.....	205
9.3.3	Objective -3- Empowerment/outcome of FHHs in Kerala	207
9.3.4	Objective - 4- Coping strategies of women after their headship	208
9.3.5	Objective-5- The effect of vulnerability among female-headed households in Kerala on their empowerment and coping strategies.	209

9.4	Result summary of hypothesis testing	212
9.5	Remarks and suggestions	213
9.6	Direction for future research.....	214
9.7	Conclusion	215
BIBLIOGRAPHY		217 - 232
APPENDICES.....		233 - 250

List of Tables

Table 3.1	Selection of the wards among Malappuram and Thrissur districts	65
Table 4.1	State-wise proportion of Female-Headed Households (FHHs) in India	72
Table 4.2	The proportion of FHHs in India and Kerala	74
Table 4.3	Socio-economic characteristics of FHHs in Kerala	76
Table 4.4	Emigrants and inter-survey Change	83
Table 4.5	Growth of remittance (1998 – 2018)	85
Table 5.1	Brief demographic profile of Kerala	89
Table 5.2	Region-wise distributions of the respondents.....	90
Table 5.3	Demographic Features of FHHs &MHHs.....	98
Table 5.4	Socio-economic features of FHHs &MHHs	101
Table 5.5	Housing characteristics of the FHHs &MHHs	107
Table 5.6	Resources available to the FHHs &MHHs	110
Table 5.7	Education and marital status of the respondents	113
Table 5.8	Age and marital status of the respondents.....	114
Table 5.9	Household income and marital status of the respondents	114
Table 5.10	Marital status and earning members of the respondents	115
Table 5.11	Occupation and marital status of the respondents	116
Table 5.12	Household headship and decision making of the respondents	117
Table 5.13	Marital status and decision making of the respondents	118
Table 5.14	Headship and community participation of the respondents	118
Table 5.15	Marital status and community participation of the respondents	119
Table 5.16	Headship and recreational activity of the respondents.....	120
Table 5.17	Marital status and recreational activities of the respondents.....	120
Table 5.18	Household headship and health status of the respondents	121
Table 5.19	Type of exclusions and marital status of the respondents.....	121
Table 5.20	Rural urban comparison of the respondents among districts	122
Table 5.21	District wise comparison of the respondents.....	123
Table 6.1	Descriptive Statistics of Monthly Family Income	130
Table 6.2	Results of One-Way ANOVA for Differences in Mean Monthly Family Income.....	130
Table 6.3	Results of Independent Sample t-test for the Differences in Mean Family Income.	131
Table 6.4	Table Results of Regression Analysis for the determinants of Household Income.	132
Table 6.5	Vulnerability framework.....	134

Table 6.6	Asset-related vulnerability of the sampled households in the study area.....	135
Table 6.7	A comparative analysis between FHHs and MHHs about their Vulnerability due to lack of psychological assets.....	135
Table 6.8	A comparative analysis between FHHs and MHHs concerning their vulnerability due to lack of informational assets.	136
Table 6.9	A comparative analysis between FHHs and MHHs concerning their vulnerability due to lack of organizational Assets.....	137
Table 6.10	A comparative analysis between FHHs and MHHs about their vulnerability due to lack of Human Assets.	139
Table 6.11	A comparative analysis between FHHs and MHHs about their vulnerability due to lack of material assets.	140
Table 6.12	A comparative analysis between FHHs and MHHs about their vulnerability due to lack of financial assets.	141
Table 6.13	Fit indices of the Second-order CFA model.....	143
Table 6.14	Influencing factors of vulnerability among FHHs.....	143
Table 6.15	Influencing factors of lack of psychological assets among FHHs	144
Table 6.16	Influencing factors of lack of informational assets among FHHs	145
Table 6.17	Influencing factors of lack of Human assets among FHHs.....	145
Table 6.18	Influencing factors of lack of organizational assets among FHHs	146
Table 6.19	Influencing factors of lack of material assets among FHHs	147
Table 6.20	Influencing factors of lack of financial assets among FHHs	147
Table 7.1	Women Empowerment in FHHs comparison with women from MHHs.	154
Table 7.2	Self-fulfillment of the respondents	155
Table 7.3	A comparative analysis between FHHs and MHHs concerning their empowerment by self-fulfillment.	155
Table 7.4	Opinion on women’s economic role of the respondents	156
Table 7.5	A comparative analysis between FHHs and MHHs concerning their empowerment by women's economic role.	156
Table 7.6	Individual knowledge of the respondents	158
Table 7.7	A comparative analysis between FHHs and MHHs concerning their empowerment by individual knowledge.	158
Table 7.8	Individual capacity of the respondents	159
Table 7.9	A comparative analysis between FHHs and MHHs about their empowerment by individual capacity	159
Table 7.10	Personal autonomy of the respondents	160
Table 7.11	A comparative analysis between FHHs and MHHs about their empowerment by personal autonomy	161

Table 7.12	Group participation of the respondents.....	162
Table 7.13	A comparative analysis between FHHs and MHHs concerning their empowerment by group participation.	162
Table 7.14	Household decision-making and economic contribution of the respondents	163
Table 7.15	A comparative analysis between FHHs and MHHs about their empowerment by household decision making	163
Table 7.16	Environmental level indicators of the respondents	165
Table 7.17	A comparative analysis between FHHs and MHHs about their empowerment by environmental indicators.	165
Table 7.18	Influencing factors of empowerment among FHHs in Kerala	167
Table 7.19	Most influencing factors among the empowerment indicators of FHHs in Kerala.....	168
Table 8.1	Distribution of the FHHs concerning years of headship.....	173
Table 8.2	Participation of the FHHs in the labour market.....	178
Table 8.3	Fit indices of the CFA model	179
Table 8.4	Influencing factors of coping strategies among FHHs in Kerala.....	180
Table 8.5	Model fit indices for CFA model of vulnerability.....	185
Table 8.6	Final Reliability and Validity for the constructs of vulnerability	185
Table 8.7	Discriminant Validity among the factors of vulnerability constructs	186
Table 8.8	Model fit indices for CFA model of women empowerment	187
Table 8.9	Final Reliability and Validity of the CFA Model	188
Table 8.10	Discriminant Validity among the constructs of women empowerment	189
Table 8.11	Model fit indices for the coping strategies of FHHs in Kerala	191
Table 8.12	Final Reliability and Validity of CFA Model of coping strategies	191
Table 8.13	The Hypotheses of model building.....	192
Table 8.14	Model fit indices of the effects of vulnerability among FHHs	195
Table 8.15	Path analysis values and R ² values for the effects of vulnerability	195
Table 8.16	Result summary of hypothesis testing	197
Table 9.1	Result summary of hypothesis testing	212

List of Figures

Figure 2.1	A hypothesized conceptual model for the effects of vulnerability among FHHs in Kerala on their empowerment and coping strategies.....	43
Figure 3.1	Individual level Empowerment among FHHs in Kerala.....	59
Figure 3.2	Selection of the study area.....	62
Figure 3.3	The flowchart shows the sampling design	64
Figure 4.1	Increasing trend of FHHs in Kerala	74
Figure 4.2	District wise proportion of FHHs in Kerala	75
Figure 4.3	District wise proportion of widowhood in Kerala	78
Figure 4.4	District wise distribution of divorced heads in Kerala.....	79
Figure 4.5	Trend in Emigration, 1998-2018	82
Figure 4.6	District-wise proportion of emigrants from Kerala	84
Figure 4.7	Country-wise destination of total emigrants from Kerala in 2018.....	85
Figure 5.1	Region wise distribution of the sampled households.....	91
Figure 5.2	Distribution of FHHs with marital status	92
Figure 5.3	Number of earning members among sampled households	99
Figure 5.4	Distribution of FHHs with age	100
Figure 5.5	Distribution of FHHs based on religion	102
Figure 5.6	Distribution of FHHs household with marital status	103
Figure 5.7	Distribution of sampled households with education	104
Figure 5.8	Occupational distribution of the sampled households	105
Figure 5.9	Distribution of the sampled household among income groups.....	106
Figure 5.10	Distribution of sampled households based on the type of house	108
Figure 5.11	Distribution of sampled households based on infrastructure	109
Figure 5.12	Distribution of land among the sampled households.....	111
Figure 5.13	Distribution of consumer durables among the sampled households	112
Figure 6.1	Second-order CFA model examines the influencing factors of vulnerability among FHHs in Kerala.....	142
Figure 7.1	Women's Empowerment Index framework	153
Figure 7.2	Empowerment framework with characteristics.....	154

Figure 7.3	Second-order CFA model which examines the influencing factors of empowerment among FHHs in Kerala.	166
Figure 8.1	Distribution of FHHs presently living with.....	174
Figure 8.2	Formal transfer received by the FHHs	175
Figure 8.3	Informal transfer received by the FHHs.....	176
Figure 8.4	Major sources of credit among FHHs.	177
Figure 8.5	Second-order CFA model which examines the influencing factors of coping strategies adopted by the FHHs	179
Figure 8.6	Confirmatory Factor Analysis for the constructs of vulnerability	184
Figure 8.7	Confirmatory Factor Analysis for the constructs of women empowerment	187
Figure 8.8	Confirmatory Factor Analysis for the coping strategies adopted by the FHHs.....	190
Figure 8.9	A hypothesized conceptual model for the effects of vulnerability among FHHs in Kerala on their empowerment and coping strategies.....	193
Figure 8.10	A tested model for the effects of vulnerability among FHHs in Kerala on their empowerment and coping strategies.....	194
Figure 9.1	Interconnection between vulnerability empowerment and coping.....	211

List of Abbreviations

AFDC	Allowances for Female-headed households with Dependent Children
AGFI	Adjusted Goodness of Fit Index
CB-SEM	Co-variance Based Structural Equation Modelling
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN/DF	Chi-Square/Degrees of Freedom
CSA	Central Statistical Agency
EMI	Emigrants and Intersurvey Change
FHHs	Female-headed households
GFI	Goodness of Fit Index
KMS	Kerala Migration Survey
MHHs	Male headed households
NFHS	National Family Health Survey
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modelling
TANF	Temporary Assistance to needy families

Abstract

A family in the conventional sense consists of the father, mother, and children. But sometimes death, desertion, or divorce, of the partner terminates the social and legal contract of marriage and results in the break-up of the family. When a married woman becomes single, either she stays with in-laws or goes to a natal home, or sets up a separate independent household along with her children. The formation of female headship happens like this.

In a country like India and a state like Kerala, Strong patriarchal customs still persist. Therefore, individuals are conditioned to the idea that men are responsible for the instrumental role of provider, and women are entrusted with the responsibility of looking after the home, and caring for the children, elderly parents, & relatives. As a result, a woman is not normally considered a household head when an elder member (father) or husband is present.

However, the rapid growth of industrialization, urbanization, and other socio-economic and demographic factors have brought many changes in the women's life also. As a result, their literacy and labour force participation rate has increased. Their attitudes and value systems changed drastically. The traditional role of women and men was also changed to a great extent, especially in urban areas. Consequently women are not only concerned with the domestic life, not only playing the expressive role in the family but also have an important part in family functioning along with the men. Factors like an increase in the divorce rate, spinsterhood, and widowhood also have created many socio-economic repercussions in women's life. Thus, the present study mainly concentrated more on the vulnerabilities, empowerment, and coping strategies of widowed, divorced/deserted and unmarried women (single) with special references to Malappuram and Thrissur district of Kerala.

CHAPTER 1

DESIGN OF THE STUDY

CONTENTS

1.1	Introduction	2
1.2	Review of previous empirical studies	3
1.3	Conclusion.....	33
1.4	Research Gap	34
1.5	Statement of the problem and research questions.....	35
1.6	Objectives	36
1.7	Hypothesis.....	37
1.8	Rationale and scope of the study	37
1.9	Data source and methodology.....	38
1.10	Limitations of the study.....	39
1.11	Chapter design	40

'A man can hardly survive without the labour of a woman, women are easily exposed to household heads'.

1.1 Introduction

The household is regarded as the fundamental social and economic unit of society. A household headed by women has become a significant phenomenon since the last half of the 20th and the beginning of the 21st century. The factors such as rapid growth of industrialization, urbanization, Neo-liberal strategies of financial institutions, migration, and marital disturbances, have brought significant changes in the family structure and its compositions. Accordingly, women are now assuming the role of prime caregivers, educators, and income earners, and such households are known as female-headed households (Folbre, 1991). About the creation of Female-Headed Households (FHHs), different countries have their own socio-economic and demographic characteristics. In advanced countries like the US, Canada, Costa Rica, and other Western societies, female headship happens by choice owing to increased cohabitation and unmarried pregnancy (Folbre, 1991). Whereas, in developing countries like India, the situation is entirely different where, they arise either out of compulsion or chance owing to the factors like death, desertion/divorce of their partners or because of the marginal contribution of their male earning members (David, 2000).

Some studies have shown that these women are in poor economic situations (Peters, 1983; Varley, 1996; Desai & Ahmad, 1998), and the percentage of the poorest of the poor form a higher proportion among these households as compared to others (Parthasarthy, 1982). Moreover, they are disadvantaged in terms of education, remunerative job, household responsibilities, credit, and capital. Children in such types of households are found low access to actual welfare outcomes such as health and education (panda, 1997) as well as psychological and emotional problems compared to others.

When it comes to the Indian context, Kerala ranks top in female headship as compared with the other Indian states (Census, 2011). National Family Health

Survey (NFHS-5, 2019-2021) also shows an increasing trend in female headship in Kerala (24 percent). Generally, female headship in Kerala has appeared in two categories: (1) De jure and (2) De facto headship. The former consists of widowhood, divorced, separated, or single women. Later include the wife of migrant and the wife of deceased or unemployed person. With this existing diversity and persisting social trend of women in Kerala, the researcher narrowed down its focus to look at the vulnerabilities, outcomes, and coping strategies of female-headed households in Kerala.

1.2 Review of previous empirical studies

This section presents a brief review of some of the studies on female-headed households about their emergence and vulnerabilities, within India as well as abroad. The studies can be classified under the following relevant themes (1.2.1) Female-headed households from different perspectives (1.2.2) Emergence of female-headed households: across the world (1.2.3) Factors responsible for the creation of female headship (1.2.4) Female headship and Socio-economic vulnerability (1.2.5) impact of male migration on left-behind women (1.2.6) Female-headed households and labour market participation and finally (1.2.7) Female headship and welfare of children.

1.2.1 Female-headed households from different perspectives

Before arriving at the literature on female-headed households, our big task is to define the concept of the ‘head’. Number of studies have exhibited the difficulties in measuring the headship in a family. Defining household headship is challenging particularly when it is related to women. It may often fall upon them for different socio-economic and demographic reasons such as marital status (whether they are widowed, separated, or divorced), income, occupation, age, and other circumstances.

There are different perspectives connected to the creation of female headship in different regions. As per the sociologist’s perspective, a ‘head’ is someone who has notable powers compared to other members of the family. As per them, the head

is usually an oldest person; he or she undertakes economic responsibilities. From the 'welfare organization's point of view', heads are those who undertake material as well as the intellectual livelihood of themselves and their family members.

As defined by Horton & Hafstrom, (1985) Female-headed households are those 'maintained by a woman without the presence of a husband'. UN, (1991) defined female headship as 'adult woman resides with children, without the presence of a male partner, owing to migration, death, divorce, abandonment or increase in adolescent fertility and unmarried cohabitation. The United Nations redefined them as "women who are financially responsible for their families, who are the key decision-makers and household managers, who manage household economies on behalf of an absent male head, or who are the main economic contributors" (UN, 1995; 32/B). Three types of women may fall under this category, (a) unmarried women, (b) divorced, separated, and widowed women, and (c) wives of migrants. A major limitation of this definition is that they neglect the presence of the male partner.

To overcome such limitations ILO has encompassed the presence of a male partner and defined headship as *either* no adult males are present, owing to divorce, separation, migration, non-marriage, widowhood, or where men also present, do not contribute to the household income (The ILO Thesaurus, 2005). Buvinic and Youssef (1978) classified three circumstances in which female heads emerge: (a) by the absence of a resident male head, viz. widowhood, divorce, separation, and desertion (b) migration of male members for long periods, and (c) loss of economic function by resident males due to severe unemployment, disability, illness, etc.

Another classification of headship was given by Fuwa (2000) which is based on demographic, economic, or self-reported factors. Demographic factors focus on the presence of husbands in the family. Economic factors take into account the economic contribution of each family member and the self-reported factor is the survey respondent's perception of who the household head is. Thus, from the above definitions, it is clear that female-headed households (FHHs) are not limited to those where the male member is absent but where the male member is also present.

In India, the head of household for census purposes is a person who is reported himself/herself as the household head. It was also suggested that the head "need not necessarily be the eldest male, but may even be a female or a younger member of either sex". Which implies that headship is determined by the chief responsibilities and decision-making capacity on behalf of the households regardless of their age and sex (Census of India, 2011).

The economic contribution of a woman to the family income takes places a crucial role in identifying women-headed households and the linkage between women and poverty (Leela, 1991). It is also suggests that education and wage work enables women to take the household decision, and recognition of their family'. According to Birdsall and Fox (1985) in Brazil, the household head is the person who has the highest income in the household. Similarly, Rosenhouse (1989) defined headship in Peru in terms of the 'most efforts on behalf of and commitment to the household'

In contrast, Chand (1997) asserts that headship in many countries is often integrally bound with masculinity, where women's contribution to household affairs is undermined. In developing countries, owing to strong patriarchal values, households are more likely to be classified as male-headed when in reality they are female-headed. Such errors would make the number of FHHs from self-reported surveys serve as a lower bound (Buvinic and Gupta, 1997). Likewise, in India, an element of men's authority or patriarchy still exist, consequently, men assume headship even if women are contributing to family income.

According to Mogdamam (2005), most of the female-headed households in developing countries are widowed followed by divorced or separated. However, in advanced countries (US, Canada, Brazil, and other western societies) their growth is often linked with increased cohabitation and un-married pregnancy. In developing countries, women have not normally considered the head of the household if a husband /adult male is present. Thus, women generally become the head of the household in the absence of males as a result of (i) spinsterhood, (ii) widowhood, and (iii) divorce/desertion. This type of headship is termed '**de jure** headship. Women also become head of the household in the presence of males if the husband

is out-migrated, invalid, incompetent, or unwilling to work. This type of headship is termed a '**de facto**' headship. Defacto heads are functional heads as they play an active role in supporting and maintaining their household through remittance. Generally, they are economically better off as compared with de jure heads. At the same time, it also takes place when men are unable to work due to unemployment or chronic diseases. Usually, this section from defacto headship is deprived same as of de jure head. A detailed investigation of them will be presented in the upcoming chapters.

From the alternative definitions of household headship, described above, the researcher has adopted the methodology of the Census of India. The concept of household head, in Household-based Sample Surveys and Censuses, are simply those members which have been identified by the respondents as heads of the respective households.

1.2.2 Emergence of female headship across the world

The household headed by women was identified and defined for the first time during the decades of the seventies. There are a growing proportion of families where the woman is the single head of the household and the sole wage earner. In recent times, the factors such as increasing urbanization; increasing opportunities for education and employment; increasing freedom and decision-making power; and loss of social security, have attributed considerably to the emergence of females heading their households across the world (Tripathy, 2005). Unlike the other households, they are subjected to a higher degree of vulnerability as they have to contribute their physical and mental energy, besides playing their role in the daily household chores like cooking, cleaning, collecting firewood, farm supervision, caring of children, cleanliness of the house and so on.

This section aims to thoroughly address and understand the roots of the female headship under diverse socio-economic and demographic circumstances. For this, the study has been classified under two main relevant themes: (1.2.2.1) studies on developing countries and (1.2.2.2) studies on developed countries.

1.2.2.1 Studies on developing countries

There has been evidence of the rising number of female-headed households both in developed as well as developing countries. In developing countries, generally, female headship happens by chance. Here, usually, a woman takes headship in their household either compulsion or absence of their male partner as a result of (i) spinsterhood, (ii) widowhood, and (iii) divorce/desertion. This type of headship is termed a '*dejure*' headship. Earlier, widowhood was the most common form of single motherhood. But after world war two, divorce and premarital birth become major contributors to their emergence. Among female headship, widowhood is considered a major crisis and the greatest danger to women's lives, as the economic misery it attributes and cultural seclusion it forces upon them. Women, (with or without children) who lost their husbands due to divorce or separation also face similar socio-economic and cultural issues to the widow in India.

1.2.2.2 Studies from advanced countries

In advanced countries like the Us, Canada, Costa Rica, and other Western societies, female headship is associated with increased cohabitation, unmarried pregnancy, and characteristics of the marriage market (availability of marriageable men, a shift in values and norms related to the expectation of marriage). Along with that, the factors such as longevity of women, greater social acceptability of single mothers, economic opportunities, and liberty also play a significant role in their formation in advanced countries. Among these, women's economic opportunities and welfare benefits are crucial (Schultz, 1994; McLanahan, 1988).

In advanced countries, higher economic opportunities, and liberty, enables the women to stay away from problematic marriage; instead, they choose to live alone or with someone else. Thus, studies also reported that women who have more economic opportunities, in terms of higher wage rates and employment, are negatively correlated to the possibility of getting married. Consequently, they either live alone or with someone else causing the birth of children outside marriage (Folbre, 1991). In such a situation women shoulder the responsibilities

of raising the cost of children, their welfare expenditure, and the cost of running the household while the male retains his income for other purposes (Dwyer & Bruce, 1988).

Welfare benefits or AFDC (Allowances for Female-headed households with Dependent Children) is another monetary motive allied to the rise of female headship in advanced countries. It is an aid (block grant to the state) to families with dependent children, which is administered by the United State department of health and human service. It is a federal program, that covers cash /welfare payments for needy children as well as food, shelter, and other expenses who had been deprived of parental support. In 1996 it was replaced by TANF (Temporary Assistance to Needy Families).

Several studies have focused on the impact of welfare benefits on single mothers (Danziger et al., 1982; O'Hare, W., 1988; Ellwood & Bane, 1989; Moffitt, 1994). The high amount received by them through welfare benefits is an insurance against their future unemployment and financial insecurities. It also provides a natural fallback for women with dependent children and is also beneficial to increasing their bargaining power. However, most of the literature focuses on the harmful side of this benefit as it motivates women to continue as single mothers than form unions. The financial support received by the women through welfare benefits frequently enables them to avoid work in many circumstances. Likewise, the increased amount of this benefit frequently resulted in separation becoming more attractive. Therefore, some authors argue that the amount of welfare benefit and the creation of female headship are always positive (Rubalcava, & Thomas, 2000; Cloutier & Loviscek, 1989). In contrast, Kimenyi and Mbaku (1995) critically evaluate the significant positive relationship between welfare benefits and the formation of female headship in advanced countries. As per his opinion the factors such as urbanization, differences in attitudes, religion, and other economic factors are certainly responsible for the creation of female headship rather than welfare benefits.

1.2.3 Factors responsible for female headship globally and regionally

About the creation of single motherhood, different countries have their own socio-economic and demographic characteristics. From the literature, it is clear that in developing countries like Africa, the female headship is associated with male migration and in Mexico, it is associated with an increase in economic opportunities and characteristics of the marriage market (Shin, 2014). In Latin America, it is the women who migrate to cities that cause the rise in female headship in urban areas, (International Centre for Research on Women, 1988). In Cameroon headship is often associated with urbanization and migration. In South Africa, it is associated with youth unemployment and underemployment (Schatz et al., 2011; Royan, 2014). In Sri Lanka, female headship is linked with war and displacement. Moreover, headship in Sri Lanka is also associated with the factors such as the Feminized sex ratio of the population as a result of Civil conflict, the High life expectancy of females, the age gap between brides and grooms, and sexual double standard, etc. (Ruwanpura & Humphries, 2003). In South Asia (India, Bangladesh, Pakistan, etc.), female headship is due to widowhood and migration.

From the above studies from different countries, it is clear that there is existing heterogeneity and diversity in the creation of female headship across the world. These factors can be classified under (1.2.3.1) socio-economic and (1.2.3.2) demographic and cultural factors.

1.2.3.1 Socio-economic factors

Socioeconomic factors are the social and economic experiences and realities that help to mold one's personality, attitudes, and lifestyle. It can also define regions and neighborhoods. As per the socio-economic factors, the creation of female headship is often associated with widowhood and migration. Whereas, the demographic and cultural factors involve wide variety of factors such as breaking up of joint family system (Pakistan), ethnicity and conflict-related death (Sri Lanka), unemployment, a shift in values and attitudes about marriage as well as childbearing.

a) Widowhood and female headship

Many families in developing countries are broken by death and divorce, separation, and male migration. According to the world women report, divorce, separation, widowhood, and male migration are the major causes of the universal increase in the number and percentage of female-headed households across the world. In many developing countries, approximately one-third of all households are headed by women, while in some regions, its proportion is even higher (Praveen and Singh, 2008; Tinker, 1990). According to Mogdamam (2005), the majority of female-headed households (FHHs) in developing countries are widowed followed by divorced or separated.

In terms of the prevalence of widowhood, India ranks topmost in the world for all age groups. There are 5.6 crore widow persons in India, out of it 78 percent of them are women and 0.45 of them are child widows in the age group of 10-19 years (Census 2011). It is a matter of fact that we will have 1.94 lakh, child widows, despite the prohibition of the child marriage act, of 2006. Thus, widows in our society of all age groups are deprived of access to employment, skill development, property right, shelter, and access to proper health care. A study conducted on Kerala titled '*problems of female-headed households in Kerala*' has stated that the prime cause of widowhood in Kerala is connected with the issues like the increased suicide rate of men, the high life expectancy of females, increased alcoholism, and consequent diseases of the male partner (Lini GR, 2013).

b) Migration and defacto headship

Developing countries like Botswana, Mexico, and South Asia, (India, Sri Lanka, Pakistan) international migration by men, have created a significant number of left-behind women and children and are known as defacto headed households (Shin, 2004; Moepeng & Tisdell, 2008; Zachariah &, Rajan, 2007; Ruwanpura & Humphries, 2003; Kazi et. al,1988). From developing countries, it is evident that male-out migration is the prime cause of defacto headship among women. For example, in Pakistan, the creation of FHHs is often associated with the male

out-migration to the middle east and the breaking up of joined family system (due to social changes and development). In Sri Lanka, the female headship is often linked with migration, ethnicity, and conflict related to death.

There are many reasons for the emergence of left-behind women and children in developing countries. Among these male-out migration is the prime cause . It is mostly associated with the factors such as shortage of productive assets (required for self-employment), limited availability of jobs in rural areas, low earnings, low-level production, and rapid increase in poverty in the place of origin, etc., (Moepeng & Tisdell, 2008; Zachariah & Rajan, 2007; Shin, 2004). A study conducted in Botswana unveils that a substantial proportion of women in the age group of 20-39 are temporarily separated because of male migration and are completely dependent upon the remittance sent by their male partners. Furthermore, these women often lose prime time for productive work due to household responsibilities, child caring, and caring for elder members in their family, which often leaves them without even income or with very few assets.

Apart from male migration, female migration also causes female headship in some countries. E.g. In Latin America, females, who migrate to cities, for work also drive to female headship among households (International Centre for Research On Women, 1988). Neetha, N's (2004) study on "*migration and social networking of women domestic workers in Delhi*" explores the survival strategies as well as unfavorable working conditions of women who migrated to Delhi. Likewise, Gamburd's study (2017 & 2000) discloses the vulnerable conditions of the women domestic workers migrating to the Middle East.

The evidence presented in this section infers that migration of either sex (whether male or female) is responsible for the creation of left-behind women and children in developing countries. The circumstances such as Poverty, shortage of productive assets, low wages, and scarce job opportunities are the prime cause of migration from the place of origin to the destination.

1.2.3.2 Demographic and cultural factors

Apart from widowhood and migration, the creation of female headships is being connected with several factors such as breaking up of joint family system (Pakistan), ethnicity and conflict-related death (Sri Lanka), unemployment, a shift in values as well as attitudes about marriage and childbearing (Schatz et al., 2011; Royan, 2014 in South Africa). Along with that, war, displacement, the feminized sex ratio of the population by Civil conflict, the high life expectancy of females, age gap between brides and grooms also were equally added in their creation (Ruwanpura & Humphries, 2003 evidence from Sri Lanka).

In Africa, young men are refusing marriage owing to a lack of employment opportunities and low wage rates in the home country. As a result, children are born out of marriage (Royan, 2014). In such context, women shoulder the responsibilities of the rising cost of children and their welfare expenditure, along with the cost of running their household while the male retains his income for their own purpose' (Dwyer & Bruce, 1988). O'Hare, 1988 in his work 'An Evaluation of Three theories Regarding the Growth of Black Female-Headed Families' discloses three prominent hypotheses that attempt to explain the rapid growth and high level of female-headed families in the black community. (1) The first hypothesis suggests that welfare transfer payments available to them often encourage these women to have children out of wedlock or encourage men to leave their families, to make the families eligible for this benefits thus increasing the number of female-headed families. (2) The second hypothesis holds that the increase in the growth of black women (due to the relative scarcity of marriageable black males) encourage them to have children and maintain a family without the presence of a man. (3) The third potential view is associated with the shifts in values and attitudes about marriage and childbearing in the black community as a result children are born out-of-wedlock and the growth of FHHs.

When it comes to Mexico female headship has been linked with increased economic opportunities through employment, and characteristics of the marriage market (lack of available marriageable men). Another interesting feature noted here

is that upper-class parents are concerned about the inter-generational property transfers and status, which sometimes discouraged marriage in difficult economic times and drives the single women into female headship (Shin, 2014; Folbre, 1991). Similar situations were also found in Urban Brazil, and the Caribbean where the majority of women are single, followed by divorced and separated (Barros et al., 1997). In the Caribbean, most of the households headed by women are involved in non-agricultural occupations including the service sector due to their lack of education and lack of training.

The above studies have shed light on the factors responsible for the growth of female-headed households across the world. Given all that have been mentioned so far, it is evident that socio-economic and demographic factors are playing a crucial role in the creation of female headship both globally and regionally. In developing countries, it happens by chance due to the loss of the male breadwinner (death or divorce), whereas in developed countries it is primarily associated with their cultural context of increased cohabitation and unmarried pregnancy. Moreover, in recent years there has been an increasing trend in 'single statuses' due to higher economic opportunities and liberty.

1.2.4 Female headship and socio-economic vulnerability

Vulnerability is a source of deprivation and it is often associated with the exposure to past shocks and future risks as well as the threat of poverty they face (Cafiero and Vakis, 2006). A household is said to be vulnerable, the degree of it depends on the characteristics of the risk, then the household's ability to respond to that risk, which depends on the household characteristics and their asset base. Much of the studies, across the world, have reported that FHHs are more vulnerable as compared to their male counterparts in terms of shocks, downside risks, and household consumption (Moghadam, 2005; Bibars, 2001). Generally, vulnerability has been viewed in four dimensions: physical/climatic, economic, social, and emotional. This section holds the vulnerabilities of FHHs in terms of economic, social, and psychological aspects only. Physical/climatic vulnerabilities associated with them are left for the further scope of this research.

1.2.4.1 Economic vulnerability

Economic deprivation of both men and women mostly happens because of their household characteristics and asset base. Thus, the magnitude of it can be measured under (a) structural vulnerabilities and (b) asset-based vulnerabilities.

a) Structural vulnerabilities

Structural vulnerabilities are associated with household characteristics and their structure. i.e., size of the family, number of dependents, domestic's burden, responsibilities, and childcare activities. Usually, female-headed households, similar to their male headed counterparts may be the sole or main providers of their own needs and the needs of their dependents. Owing to household characteristics and responsibilities, most of them are unable to devote all their time to the labour market activities which often led them to fall into the extraordinary risk of economic impoverishment (Schiller, 1972).

When we take the gender composition of female-headed households, the proportion of females residing in such households will be higher, as compared with their male-headed counterparts. Which implies their economically vulnerable position. The reason for the lower sex ratio in such households is generally associated with the issues such as intra-household differences in males and females, differences in mortality, departure of the male through migration, separation, and other reasons (Agarwal, 2016). In addition to that, their lower educational attainments (due to households investing less in girl's schooling during childhood), gender segregation of household tasks, constraints on mobility and freedom, often made these groups more disadvantaged in the choice of work, wage level, and employment benefits (Kabeer, 2008; Unisa & Dutta, 2005; Guptha, 1997; Schiller, 1972).

Thus, a substantial body of literature reveals that they are often disadvantaged by their higher dependency ratio, large family size, and lack of adult male members than households comprised of two working parents (Fuwa, 2000; International Labour Organization - ILO, 1996). Likewise, their impoverishment is visible in

several dimensions like extreme poverty, inaccessibility of education, and labour force participation, (Fuwa, 2000; Alain Marcoux 1998; Agarwal, 2016; International Labour Organization - ILO, 1996; Hossain & Huda, 1995).

b) Asset-based vulnerabilities

Female headship and their relative vulnerability are very common all over the world. Women, particularly households headed by women, face extremely unfavorable access to land and other valued resources. They have greater constraints in terms of gaining access to resources and services in both property and agriculture. Moreover, their access to credits, capital, and jobs with good incomes is also limited by their household liabilities and caring responsibilities. The asset-based vulnerabilities of a household headed by women can be classified under (1) ownership of property rights; (2) lack of access to land; (3) access to the credit market (borrowing); (4) access to labour market (taking up additional occupation), and finally (5) access to insurance market (drawing on insurance schemes).

It is commonly known that women face several socio-economic conditions that restrict them from acquiring and using human capital to break the poverty gap in many parts of the world. In many developing countries, women have no access to land, especially in rural households, which mostly depend on agriculture. In some Latin American countries, the male share owners of farm land range between 70 and 90 percent. Whereas, female heads commonly possess less land than their male counterparts, which underlines the disparity in inheritance and land titling laws between males and females (Klasen et al., Bardhan Udry, 2010). Likewise, A study set in India examine the vulnerability of FHHs *by using education and landholding* (NSSO various round) (43, 50th, and 55th rounds such as 1987-88, 1993-94, and 1999-2000) and advocate that FHHs are discriminated against both in human (health and education), as well as physical capital (possession of assets, inherited land) (Gangopadhyay & Wadhwa, 2004). Similarly, Padda, I. U. H., and Hameed, A. (2018) also disclose their susceptibility to land ownership and other basic requirements.

Another form of the vulnerability of women in developing countries are being associated with their limited access to the formal credit market. In the credit market, female-headed households are frequently rejected for a loan or are charged a higher rate of interest due to their lack of assets or collateral such as land or other property rights. Consequently, they face lots of difficulties while applying for a loan and all. Regarding the insurance market, women usually have very limited possibilities to contract health insurance and may get respective access only through spouses employed in formal sector jobs (Klasen et al., 2010). From the light of the literature reviewed so far, it is clear that the deprivation of FHHs both in the credit and capital market is very common due to their lack of assets and absence of an alternative source of income.

Concerning the labour market participation, women face limited access than men owing to household duties and caring responsibilities. Besides, they are paid significantly less than men because of gender segregation in work, lack of education and experience (Klasen, 2006). In addition to that, cultural factors, norms, and traditions, full-time jobs, the hectic working condition, and double day burdens both in-home and workplace also added to their vulnerability to many extents. However, the economic issues or deprivation related to them may vary concerning their socio-economic and demographic characteristics such as age, marital status, ability, and other social-religious or ethnic statuses. Among the female-headed households, young widows, with dependent children are at greater risk in terms of low endowment and entitlements of resources (land and capital), than others (Beckwith, A. N., 2018). It is mainly because of their low earning power and the absence of male income earners in their households. It is also reported that poverty in FHHs is not just because of the absence of male breadwinners, but because of the lack of earners with the sufficient earning capacity of males in such households. On the other hand, a study set in South Africa titled '*elderly poor and resilient*' argues that health and insecurity are the major concern faced by the elderly female heads (Sidloyi, 2016, 1983).

1.2.4.2 Social vulnerability

Social vulnerability refers to the inability of people, organizations, and societies to withstand adverse impacts from multiple stressors to which they are exposed. There are several factors associated with the social vulnerability of female-headed households. Such as weak family structure, inability to access legal and administrative system, rigid patriarchal norms, mobility constraints, lack of leadership, decision making, and ill-health. Furthermore, culture, tradition, religion, local norms, values, and political accountability also determine a major role in it. A lot of studies have reported that they often lack support from both social networks as well as from the state (Bibars, 2001). According to Chand (2008), female heads may lack ties with ex-partner's relatives as well as with their own families and communities. Moreover, their access to extension services is also limited due to smaller farms (small size of holding) and low levels of education (Klassen et al., 2015; Quisumbing, 1994). Regarding the access to production technology female farmers seems to be worse off as compared with their male-headed counterparts (Chirwa, 2005).

A study set in Iran also explains their various issues in terms of illiteracy, dependency ratio, low family income, the rising cost of children, high cost of rental housing, lack of ability to solve the problem, and reduced amount of pension received, etc. In addition to that, they are also facing problems such as adverse social, cultural, and economic living due to negative attitudes towards women, low social connection, and low social welfare (Maleki et al., 2011). Among the household headed by women, widows are more socially vulnerable and poorer as compared to divorced, separated, and single heads (Klasen et al., 2011; Chen, 1998; Dreze & Srinivasan, 1997). A study by Chand (1997) conducted in the Philippines reveals that migrant wives are advantaged in higher per capita income than de jure heads as they are benefited from regularly sending remittances from their migrant spouse. Whereas, wife of migrants are vulnerable in decision-making power, and financial autonomy, especially those who reside in joint families. Another issues faced by them are the gossip network between the family and society itself.

a) Widowhood and vulnerability

Widowhood and vulnerability are very common, especially in the context of developing countries. Mohindra et al. (2012), have categorized the vulnerability of widowhood under three phases (1) before her husband's death (2) when the women's husband dies (3) take-off phase. The initial stage of widowhood is linked with heavy financial responsibilities and the burden of the treatment of their husband when he is sick. The second stage is accompanied by financial and emotional shock resulting from the sudden and unexpected loss of the husband. At this stage, women express a sense of hopelessness, challenges, and are met with several social dramatizations. At the final stage or takeoff phase, they learn to assume a greater decision-making role and become the main breadwinner of their family which may enhance them to improve economic status and mobility (Mohindra et al., 2012).

Another aspect of the vulnerability of widowhood is associated with the region and cast structure. If we take the example of the North-South divide- in North India, cast restriction is very common in widowhood. Moreover, they suffer greater discrimination and marginalization in terms of socioeconomic and emotional support than a widow in the south. While in Southern regions like Kerala, they face restrictions in mobility, employment opportunities, and participation in social and religious events (Sen, 2017).

Apart from the issues listed above, they are facing difficulties in meeting health care costs for themselves and for families, which is mostly connected with the age of widowhood. They are also experiencing a restriction in remarriage for several reasons. For example, young widows with children may not be ready for remarriage for the sake of their children from the neglect of new husbands. However, widow remarriage is very common nowadays. Likewise, it is also observed that the social stigmatization and exclusion already existed in the ancient time against widows, such as restricting them, from appearing in public and other social activities were not much crucial nowadays (Chen et al., 2006).

1.2.4.3 Psychological vulnerabilities

Psychological or emotional problems are the other crucial vulnerability faced by women after becoming head of their households. The sudden loss of a husband in a women's life sometimes leads to feelings of anger, anxiety, fear, and some kinds of personality disorder. (Kotwal & Prabhakar, 2009). They face various issues such as isolation, stress, a feeling of rootlessness, and lack of identity after divorce or widowhood. Being single, means they are psychologically oppressed. The biological, sexual, as well as emotional needs and desires, give her an illusory experience and society refused to understand her mental condition for what she is fighting for. In the majority of cases, they are poor, resource less, persecuted by their relatives as well as neighbours, and sexually harassed by men she has to deal with (Bhambhani, 2002). They also face issues related to efficient management of their family, as well as a problem related to children's education and training. Additionally, the factors such as inferior social position, lack of power, economic hardship, and single responsibilities due to the absence of a spouse often cause psychological stress among them.

Davis et al. (1997) in their study on '*significant life experience and depression among single and married mothers*' have reported that single mothers have high lifetime and one-year prevalence rate of depression than married mothers. Likewise, a substantial body of literature reveals that single mothers suffer a disproportionately higher rate of major depressive disorders and psychological stress, hypertension, and mental health gap as compared with other women from their male-headed counterparts (Cairney et al., 2003; Davies, Avison et al., 1997).

Roy and Nangia's (2005) study explored the emotional problem faced by migrant wives. The study argues that migrant wives are often suffering many issues such as greater mental stress emotional deprivation, and reproductive morbidity. A study conducted in Bihar, India attempted to explain the social well-being, as well as mental and reproductive health of left-behind women as compared with the wife of non-migrant and found that migrant wife has more mental stress and symptom of reproductive morbidity as compared with the wife of non-migrant. Moreover,

psychosomatic diseases are more common in left-behind women which are labeled as 'Dubai syndrome' (Donnan, 1997).

Similarly, a large number of studies have given a shred of detailed evidence regarding the psychological and emotional problems of dejure FHHs (Bookwala and Erin Feketein 2009; Bharat, 1988; Fulmer, 1987). Women who are recently widowed reported a substantially higher rate of depressed mood, lack of mental health, poor social connection, & social functioning than those who are widowed for more than a year. Hall & Farel's study (1988) exhibits that depressive symptom are high among widowed mothers with young children owing to greater stress, unresolved grief, fewer social resources, and less use of active behavioral coping strategies (Fulmer, 1987). Furthermore, they are also subjected to psychological victimization (treating widows as an object, commodities, or burdens), physical, mental, and sexual abuse from their relatives and society. Bookwala and Erin Feketein, (2009) made a comparative study between never-married women and married adults to establish that, in terms of social as well as psychological resources and affective well-being single women scored lower than that married adults. A study set in Mumbai indicates that the emotional problems of single mothers were not due to the absence of a spouse but because of the resulting socio-economic hardship and anxiety regarding children's future (Bharat, 1988).

1.2.4.4 Female headship and poverty

Poverty is a denial of choices, opportunities, and a violation of human dignity. It also means a lack of basic capacity to participate effectively in society (UN, 2009). Women's poverty is an important indicator for understanding their extent of vulnerability and economic status in their society. Developing countries like India, Pakistan, Botswana, Mexico, Sri Lanka, Caribbean, South Africa, Brazil, Bangladesh (Massiah, 1982; Kossoudji & Muller, 1983; Kazi et al., 1989; Ray, 2000; Moepeng & Tisdell, 2008) and developed countries such as the US, and other western societies disclose the vulnerability of female-headed households than their male-headed counterparts. Moreover, they have adverse socio-economic consequences for all racial and ethnic groups as compared to other male-headed households (Gender

vulnerability report, 2017; Hill, 1987). Many studies from developing countries also address the relationship between female headship and poverty (Quisumbing et al., 2001; Gupta, 1997); In India Rajaram (2009) estimates the poverty of FHHs in terms of slandered of living.

In India, much of the literature has explained the relationship between household characteristics, family size, and poverty. Several studies outline that, the burden of Poverty is high among young, illiterate household heads with large family sizes as well as households with the predominance of more female members (Rani et al., 2021; Sundaran & Tendulkar, 2002). Shiller (1972), in his book ‘the economics of poverty and discrimination reveals that “large and broken families are the most salient characteristics of the poor”. Gass-Sterna and Beckwith et al. (1994) altogether found that young widows, with dependent children, are at greater risk of poverty than others. They also face a set of restrictions in employment, constraints on mobility, isolation, low socioeconomic status, increased mortality, and higher levels of impoverishment. Likewise, numerous studies have testified their lower earnings, mobility constraints, workplace discrimination, and intra-household discrimination both in the family and labour market (Evident in Egypt, Botswana, Iran, Zambia, Kenya, South Africa, India, Pakistan, Mexico, Sri Lanka, Caribbean, South Africa, Bangladesh (Massiah, 1982; Kossoudji & Muller, 1983; Moepeng & Tisdell, 2008; Kazi et al., 1989; Bibars, 2001).

Though there is a close connection between female headship and poverty, many studies claim that the link between female headship and poverty is quite ambiguous as it has been challenged by various countries and situations. (Marcoux, 1998; Chant, 1993; Rosenhouse, 1989). In countries like India, Mexico, Colombia, Peru, and some parts of Brazil and Guatemala women-headed households appear to be more prevalent among the non-poor (Franco, 2003; Dreze and Srinivasan, 1995; Lewis 1993 on Bangladesh; Makat Jane, 1990). Chant (2007) also discards the relationship between female headship and poverty, by taking evidence from three countries such as the Gambia, the Philippines, and Costa Rica, and inferring that FHHs experience more favorable social, economic, and legal environments than male-headed

households. Studies from Uganda also demonstrate that there is no such relationship between the sexes of household heads and the incidence of poverty (Appleton, 1996 on Uganda).

1.2.4.5 Vulnerability from a gender perspective

The literature about the vulnerabilities of women in developing countries can be grouped into two broad heads (1) gender-related differences, i. e. differences between men and women (2) household differences, i. e. differences between male and female-headed households.

The gender discrimination toward women starts during her early childhood itself when the household invests less in girls' schooling. Later on, women's work is frequently confined to the home because of a 'social stigma' against labour outside the household (Godin, 1994). Thus, women are often considered secondary earners, and their prime importance is always household responsibilities and child care. Additionally, they face numerous, discrimination both in labour and housing market (Galster, 1991). In the housing market (rental housing) they experience both price and exclusionary forms of discrimination due to the prejudice of house owners towards them. House owners often believe that female heads are inferior, dependent, unreliable, and violating cultural norms which leads them to charge high costs and also several exclusions. A similar state of affairs was found in the San Francisco Bay area (McClure, 1987, where housing agents are charging high rent than mark-up (\$15000) for female heads residing with children due to a lack of confidence in their repayment of rent. Likewise, there is plenty of literature relating to the discrimination of female-headed households in labour market both in developed and developing countries. In developed countries, they face discrimination in wage rates, but in developing countries, it has been associated with differential access to wage employment.

1.2.5 Impact of male migration on left-behind women

Government, civil society, and policymakers assert the potential of international migration to alleviate poverty and foster development through remittance and skill

transfers. Such assertions are focused on migration on a macro scale geographical approach or development aspects only. They neglect the physical and emotional cost of migration on left-behind women, children, elderly, sick, and disabled in the form of household burden, stress, and depression (Lu, 2012). Hence, the researcher argues the hidden cost of transnational migration on left-behind women and children which has been classified as (a) impact on household responsibilities (b) Impact on female autonomy and decision making (c) impact on empowerment and mobility (d) other social issues.

The premise of international migration as a vehicle for development, rooted in a macro-scale geographical approach increasingly embraced by governments, policymakers, multilateral agencies (for example, the United Nations, the World Bank, the International Monetary Fund [IMF]), civil society, demographers, and economists (Castles and Delgado Wise, 2008; Faist, 2008; Kabbanji, 2013; Pina-Delgado, 2013). This macro-scale geographical approach always focuses on the progressive aspects of migration. It, argues, that migration is a crucial safety net for countless households through its direct support for basic food, housing, education, healthcare, and infrastructure needs. It has resulted in positive changes in the attitudes toward women and family structure (Sing, 2018; Khuseynova, 2013). Migrant households spend a major share of their income on luxurious consumption, hygiene, sanitation, welfare, and other entertainment. The use of consumer durables such as television, refrigerator, laptop, the internet, and vehicles was found to be higher as compared to non-emigrants. The flow of remittance helped them in gaining, capital assets such as gold ornaments, land, and other apartments, cash deposits, and technological advancement, thereby achieving high socio-economic status and well-being (Kaur, 2017; Pushpangadan, 2003; World Bank, 2002). The growth of English medium education, self-financing colleges both professional and non-professional, the growth of the paramedical institution, and the private hospitals are also the outcome of male migration.

However, much of the literature demonstrates that migration triggers both the family structure and its composition. i.e the prevalence of nuclear families as well

as a tremendous increase in the left-behind women and children in the state. Furthermore, the absence of male partners caused by migration places added responsibility upon women like social reproduction and maintenance of the labour force; outside wage and income-earning activities; farming/gardening; community work; managing remittances, etc. Thus, migration resulted in growing recognition of the social and economic value of the unpaid care work invested by women (Dyck, 2005). It often triggers fundamental changes in intrahousehold gender power relations - the household pattern, composition, daily activities, income, even authority, and power in the households (Ghimire et al., 2019; Kumari et al., 2022 & 2018; Ullah, A, 2017; McEvoy, et al., 2012). This gender dynamic in household affairs often empowered them to act as an agent to perform greater responsibilities that may differ based on their social-cultural context (Rashid, 2013).

1.2.5.1 An impact on household responsibilities

Long-distance, migration has created a quite sudden, dramatic unintended shift in the responsibilities and tasks of women (Haas & Van Rooij, 2010). This includes the intensification of women's domestic work, as well as the withdrawal of them from economic and social activities (Adhikari & Hobley, 2015). The accountability of women in the migrant household may vary concerning the family structure and its composition.

In a nuclear family, women take the role of the de facto head; become more responsible for the keeping of land, taking care of the health of children, parents, other dependents, monitoring the education of their children, and financial management of their family (Zachariah & Rajan, 2001; McCarty & Altemose, 2010). Thus, for those who reside in a nuclear family, the burden will be additional than those who stayed with their in-laws who can share their work with other family members (Kaur, 2017)

In many developing countries, the migration of men from rural areas is one of the key drivers of 'feminization of agriculture where women perform increasingly enhanced responsibilities alongside managing the traditional gender roles at home

(Jetley, 1987; Paris et al., 2005). Drawing on primary field research in western Bihar in India, Choithani, (2009) suggests that the prolonged migration of men made women's contribution to the household productive and reproductive field more visible and valued. This may be often viewed as an improvement over their autonomy.

1.2.5.2 Impact on female autonomy and decision making

Migration has opened several ways for women to increase their self-sufficiency, economic autonomy, decision making, and active participation both in the household as well as in financial affairs (Ghimire et al., Sajida and Harikumar, 2019; Sing, 2018; Ullah, A., 2017 in the Middle East and North Africa; Maharajan et al., 2012; Desai & Banerji, 2008; Kumari 2008; Paris et al., 2005; Hadi, 2001; Gulati, 1993,1987; Gulati, 1983). Moreover, some studies testified that women from migrant households have appeared in lower physical burdens, more satisfaction, and lower mental problem (Aghajanian et al., 2013; Maharajan, et al., 2012; Hadi, 2001).

A study set in Nepal suggests that remittances sent by migrant enhances women's standing in the household, improve children's education, and boost investment in quality health services (Maharajan et al., 2012; Gulati, 1987). In Morocco De Haas and Van Rooij (2010) address that, international remittances often decrease their housework, as they can hire additional domestic help and agricultural workers. Besides, in some de facto households, land titles were purchased in their name which provides some women legal ownership of land (Agarwal, 1994) is an important determinant of well-being and autonomy in South Asia. Based on a case study in Central China, and Ugwen- left-behind women are participating in community governance as well as political affairs. Archambault's study (2010) demonstrates the permanence of female autonomy in migrant households. The autonomy effects which they have been experienced during the time of migration often prevail even after the men returns and are no longer migrants (Gartuala et al., 2010).

In contrast, some studies argue that the effects of male migration on women's autonomy, responsibilities, and decision-making lasted as long as the men were

away (Choithani, 2019; Sinha et al., 2012). It may vary concerning their household structure, age of head, the pattern of migration, (whether they migrate to the formal or informal sector), and the amount of remittance received by them (Kumari, 2018; Kaur, 2017; Maharajan et al., 2012). Generally, women in nuclear households enjoyed greater autonomy and decision-making vis-à-vis those living in joint/extended families. For example, a study conducted by Shattuck et al. (2019) in five districts of Nepal among women (between the age group 15-24 years) recommended that husbands and in-laws have interfered partially or fully in women's privacy as the majority of the decision were dominated by them.

Much of the studies from India, Iran, and across the world demonstrate that due to the traditional pattern of patriarchy, male authority, socio-cultural system (Choithani, 2019) migration of men does not lead to absolute freedom for women. The spread of mobile phones has curtailed their freedom to make the decision alone and enhanced joined decision making as their husband had distant command over their wives. Though women make some autonomy in household affairs, major decisions on financial affairs are mostly controlled by men (Shattuck, et al., Christina Rile, 2019; Aghajanian, et al., 2014). A similar finding is given by Maharajan et al. (2012). According to him, their decision-making role is greater in operational matters than in strategic affairs.

1.2.5.3 Empowerment and Mobility

Migration has empowered women in gaining agency, mobility, voice, and perceived status within and out of the households (Sing, 2018; Ullah, A., 2017; Khan et al., 2010; Hadi, 2001; Gulati 1993). It has increased women's autonomy and self-esteem by expanding their roles and responsibilities including mobility beyond the traditional ones (Kumari, 2018; McEvoy, et al., 2012). It also has enhanced children's education especially girls' education due to their improvement in the standard of living and remittance (Haas & Van Rooij, 2010). A study set in Nepal illustrates that left behind women could gain from increased access to socio-economic resources, higher bargaining power, increased authority in spending, the

decision on certain public sphere tasks, and freedom of movement (Pandey, R. 2021; Ullah, A., 2017; Cortina, 2014; McEvoy et al., 2012; Kabeer, 1999).

In contrast, some studies argue that male migration does not change the position of the women in the family and it leads to restricted empowerment, and freedom among women (Haas & Van Rooij, 2010; Sadiqi and Ennaji, 2004; Shaheed & Hjorth, 1981). As per these studies, women from migrant households lack financial autonomy, the ability to decide on significant matters, securities, and hindrance in access to civic entitlement (Rajan, 2001). Furthermore, male out-migration also resulted in the breakdown of some of the entrenched social norms & practices, participation in illegal and criminal activities (Cortina, 2014).

Thus, the impact of migration on women's empowerment depends upon the factors such as family structure and its composition, patterns of migration, (whether they work in the formal or informal sector) attitude of the family, and the amount of remittance received by them (Maharajan, et al., 2012). Jacka, 2014 also recommended that women's subjective well-being and quality of life depend on the amount of remittance received by them. The high remittance received by the migrant household lives a luxurious life by spending more on leisure, and media use, which could break their isolation and enhance mobility (Ghimire et al., 2019).

1.2.5.4 Other social issues

Globally studies have identified that women who marry migrant husbands are suffering from mental as well as health issues including loneliness, isolation, depressive symptoms, unique fertility issues, and desires (Chen, et al., 2015; Gao et al., 2010; Marooka and Liang; Schmeer, K., & Skeldon, R., 2009). In India, women with a migrant husband have a higher level of reproductive morbidity and sexually transmitted infections, and fertility issues than women married to non-migrant (Rajan, 2001; Hampshire & Randall, 2000; Shattuck et al., 2019).

Studies also reported that wives of migrants are more prone to physical, social as well as verbal abuse, infidelity from laws, and community members in the absence of their men which has increased their vulnerability than their opportunities.

The gossip network often inversely affected their mobility and freedom (Hendrickson, et al., 2019; McEvoy et al., 2012; Baas, M., & Yeoh, 2019). A study set in Kerala also discloses that the attitude of the society and the insecurity feeling are the major constraints and concerns that affect the free mobility and economic security of left-behind women.

All migrant is not rich in all cases. Millions of poor laborers migrate for the lively hood. The Indian policies to protect them are inadequate. Consequently, they lack a livelihood supporting system and welfare scheme implemented by the government. Those labours who migrate to the informal sector are not received full wage and their women and children are suffering a lot even in basic facilities (Priya Deshingkar & Start, D.2003 & 2005). Studies set in Mexico suggests that male out-migration to the US threaten the future viability of migrant families due to their insecurity, seasonality, discrimination, limited benefit, hazardous condition of work, and lack of health benefits or worker's compensation (Torres, R. M., & Carte, L., 2016).

In the light of the above literature, it is evident about the hidden cost of migration on left-behind women and families in the form of high responsibility, mental and health issues, lack of livelihood supporting system, and insecurity. Due to gossip networks from the family and society they often lack mobility and freedom. The financial autonomy and decision-making among migrant wives are found to be rare for those who live in a joint family. Finally, the migration of men not led to absolute freedom for women, but seemed to enhance the role of women within and outside the household and contributed to their improved agency, at least for the time that the men were absent.

1.2.6 Female-headed households and labour market participation

Regarding the enrolment of labour market participation, working men and women differ in their employment patterns. Household affairs are most common for females while males dominate the category of house compound and general labour. Poverty, increased family expenditure, and the decline in men's ability to support a

family are the major reasons for the rise of women's employment in developing countries (Jaya Lakshmi, N. 2016; Schiller R., 1972). Besides, the increased women's involvement in wage work often leads to an increased sense of independence as well as improved decision-making roles in the household and changes in conjugal role expectations.

In the majority of cases, more than three-fourths of the FHHs take up employment as a result of a sudden deterioration in their economic situation caused by any of the following factors such as death, illness of their husbands, or after a separation or divorce (Kazi & Sathar, 1986). Owing to these reasons women may enter the labour market after having married and usually after the birth of at least one or two children. Thus, the average age at starting her work was 28.3 which is very high compared to men.

Generally, the highest proportion of FHHs are illiterate, their low-level education, issues related to mobility, and lack of training characteristics, limit their employment opportunities to low-paying menial jobs. Their immobility, socio-cultural taboos, and household liabilities often take them to choose those kinds of work that maintained a balance of risk and return by indicators like income and labour time (Paul, 2018). Most strikingly, the household led by women carries a double day burden by handling both the domestic work and the role of the main earner simultaneously (Moghadam, 2005). Consequently, they will become time-poor to manage their household responsibilities along with their wage work. In the working place also they are subjected to gender segregation of tasks in the distribution of their occupation as well as several exploitations in the form of low discriminatory wages (Chakrabarthi, 2002). The sexual divisions of labour along with their childcare obligations often tend to confine them to less productive economic activities and prevent them from high opportunities in the labour market. Consequently, they are compelled to work in the lowest occupational group, such as a factory worker, informal sector workers, home workers, agricultural labour, etc., which provide income only for subsistence. So, workers working at the bottom of the labour market in the unorganized sector remained in inter-generational poverty.

Usually, most of the widows, divorced and wives of the disabled, fall under this category.

Balwindersing's study (2008) on socio-economic conditions of urban female domestic servants in Punjab and Neeta, N' (2004)'s study on 'female domestic workers in Delhi' all together discover that a large number of de jure heads such as widowed or divorced women are engaged in low profile domestic job such as washing, cleaning sweeping and babysitting, beedi rolling, stitching and mat making. These kinds of work enable them to contribute to household income along with their household liabilities.

Whereas, the participation of defacto head (migrant wife) in the labour market is comparatively lower, due to the potential income effect from remittance of their migrant husband. Thus, the higher remittance received by them pulls back from participating in the labour market, contributing to the trend of falling female employment among them (Gartaula et al., 2010; Lokshin & Glinskaya, 2009; Amuedo-Dorantes & Pozo, 2006). There are two broad theoretical underpinnings rooted in it, i.e. Income effect and U shaped hypothesis. The former implies that migration increases income via remittance, and consumption of normal goods including leisure. Whereas, U shaped hypothesis demonstrates an inverse relationship between income and participation in labour market.

In contrast to the above view, few studies from Egypt, Nepal, and India, claim that migration increases Female Labour Force Participation among those who have a farm or agricultural land (Ghimire et al., 2019; Chang, et al. & Khan, et al., 2011). The factors such as the absence of working members, constrained mobility, traditional, and religious values, replace the migrant labour directly through their own labour in such households. So that household assets like land and livestock, remain fully utilized. A study from Tajikistan (the former Soviet Republic in Central Asia) also establishes a positive and significant relationship between the presence of household farms and female labour force participation (Kan & Aytimur, 2019). Whereas, a study conducted in India, by Pattnaik et al. (2018) proposes that the

increased role of women in agriculture should not be confused with their empowerment and autonomy but it is an effective source of livelihood for some poor households.

1.2.7 Female headship and welfare of children

The impact of single-parent families on child development is complex and varied. Single mothers in the absence of their earning partners are struggling to meet the economic and the basic demands of their families such as food shelter clothing and other requirements of their children. In such households, one of the major issues faced by them is financial constraints (Rani, 2006). Owing to financial restrictions children from these families have fewer years of schooling and early dropout which often force them to enter into child labour and other activities (Barros et al., 1997). Panda's study (1997) on "female headship, poverty, and child welfare, in rural Orissa, affirms that these households are facing more time and income constraints. Besides, girls are relatively disadvantaged compared to boys both in terms of health and education. Ray, 2000 also reached a similar finding. Moreover, single mothers with children are exposed to emotional deprivation, discrimination, sexual violence, and exploitation in many aspects. Besides, these mothers are in a disadvantaged position to shape the careers of their children and their family in many aspects (Moore, 1994). Thus, a large number of studies across the world disclose that child labour is the result of incomplete or dysfunctional families.

Another problem faced by them are problem-related to parenting. Parental involvement and supervision in such families were more likely to be lower than that in the two-parent families (Hatherington et al., 1983). The permanent and temporary absence of their male partner often leads their children into future behavioral problems such as greater level of peer group rejection, negative peer group influence, high tension, and other psychological and behavioral problem due to lack of support and security (Lini, 2013). Furthermore, these children usually have a lack of interest in studies owing to higher household responsibilities and stress relating to their future, which often led them to enter into labour force before the completion of their primary and secondary education.

According to Peters and Haldeman (1987), children from single-parent families are taking care of most of the household work usually from their mothers at the cost of their education and spend more on household tasks such as food preparation, dishwashing, shopping, house cleaning, maintenance and finally the physical care of the family members & siblings than those from two-parent families (Kazi, et al., 1989; Bharat, 1988). The absence of the male member and the consequent role and responsibilities of the mother in these families has resulted in a significant impact on the growth of their children both physically and psychologically. Studies also found that the family role as an agent of socialization is also weak in these households (Chand, 2007). Hence, mothers are having problems monitoring their adolescent children and are facing stress relating to their children's discipline related. Similarly, adolescents from these households are more likely to be susceptible to peer group influence than children in two-parent families (Dornbusch et al., 1985). Due to income insecurity, limited resources, and education, mothers were also found to have a lower educational expectation of their children compared to the other married mothers from the male-headed households (Lanahan et al., 1988).

In contrast, to the above statement, some studies explain the better performance and academic achievements of children in female-headed households. Ray's (2000) study explores that children from FHHs have not reported any dropouts as compared with other male-headed households as they are engaged in wage-based paid employment along with their schooling without any dropouts. Singh et al. (2013) in their study on 'household headship and an academic score of Indian children' disclose that, children from these households perform better or have similar academic abilities like that to the children of their male-headed counterparts. Besides both boys, and girls are equally treated in FHHs to enroll in school as well as to attain a given level of education.

Botswana marked a positive correlation between the education of both the mothers and children in female-headed households. Botswana is one of the few places in the world where women obtain more schooling than men which helps them

to make better decisions about their children's education. Zhan & Sherraden (2003) in their study on 'asset expectation and children's educational achievement in female-headed households' well documented that parental income is positively associated with mother's expectations and child's educational achievement. Which are also related to some control variables including mother's race, employment status, number of earning members living in their households, etc. On the contrary, to this argument, Mayer's (1997) study on *what money can't buy; family income, and children's life chances* suggests that parental assets may have the strongest impact than income on a child's outcome. A similar statement is also supported by Martha Hill, & Greg Duncan (1987).

There are a few more studies infer that children from female-headed households excel in imparting positive health and better schooling. For example, in Jamaica, these Children were found healthier in comparison to those in male-headed households (Handa, 1996). Similarly, Johnson and Rogers, 1993, in their study on Dominican households also found the same result. Furthermore, Seebens's (2009) study explores that there is more spending on the welfare of children in FHHs compared to male-headed households in Tanzania. Salvia Chant (2007) also criticizes the relationship between female headship, poverty, and children's welfare by taking evidence from three countries such as the Gambia, the Philippines, and Costa Rica, and concludes that they are experiencing more favorable social, economic, and legal environment than male-headed households.

1.3 Conclusion

The review of literature has given us an insight into the creation of FHHs throughout the world (Visaria, 1980). From the literature, it is observed that the circumstances such as widowhood, desertions, divorce, separations, and non-marriage, are reasons for the universal increase in their proportion (Tripathy, 2005). However, the causes of female headship in both developed and developing countries are different. In developing countries, female headship happens by chance, whereas, in developed countries, it is a choice. When women assume headship they often

experience several socio-economic problems and issues in many aspects. Among these financial constraints are the major concern about them. (Kotwal & Prabhakar, 2009; Barros et al., 1997). This is often visible in different dimensions like lack of access to land, credit, labour, access to the insurance market, etc. Whereas, emotional problems and economic hardship experienced by the FHHs may differ concerning their marital status-whether they are, single, widowed, divorced, or wives of migrants. Between female headships, *dejure* heads are (widowed) more vulnerable because of the social stigma and economic hardship against widowhood. At the same time, *defacto* heads (migrant wives) are comparatively better in economic positions than *dejure* heads.

1.4 Research Gap

In the light of the literature reviewed so far, the researcher has identified three gaps that are relevant for the study.

Firstly, several studies explain the emergence of female headship and their vulnerabilities across the world (Unisia & Datta, 2005; Chant, 2003; UNDP, 1995:4; UN, 1996:6; UNIFEM, 1995:4 cited in Marcoux, 1997; Bharat, 1986; Kotwal and Prabhakar, 2009). However, the factors affecting the female headship and vulnerabilities may change with diverse socio-economic and cultural contexts. In other words, the issues responsible in developed countries may not be the same in developing countries, like India, especially a state like Kerala.

Secondly, several studies on female headship have been conducted at the macro-level or considered them as a single category (Chand, 2003, 1993). Generally, they appeared in two groups *de jure* and *de facto* with diverse socio-economic and demographic characteristics. Consequently, a separate micro-level analysis is needed at the grass-root level to catch their vulnerability thoroughly.

Thirdly, Kerala ranks top in female headship as compared with other states. Still, they are unidentified or unexplored due to the lack of data and adequate information about them. Hence, studies on female headship are rare in this context except for some studies provided by Lini, G. R. (2013) and Franke and Chasin (1996).

Nowadays researchers and policymakers take a distinct initiative to recognize these group and considered them as a targeting indicator in order to arrest poverty at the household level.

Moreover, none of the studies examined the comparative analysis of vulnerabilities and outcome (empowerment) between female headship and male-headed counterparts. Therefore, an attempt at comparative analysis between these two are also essential to know the extent of deprivation among female heads.

1.5 Statement of the problem and research questions

Despite Kerala's achievement in the area of social and human development indicators such as female literacy, low maternal, infant mortality, and a healthy sex ratio as compared to the rest of Indian states (Parayil, 1996; Franke, R. W., & Chasin, 1998; Kannan, K. P., & Pillai, 2004; Economic review, 2020), the factors such as the increasing trend of migration, the low growth of employment, gender-based violence, particularly domestic violence, the rapid growth of spread of dowry, divorce, widowhood, have created a significant proportion of left-behind women and children in the state. As per the census 2011, Kerala ranks top in female headship (23 percent) which is more than double the national average (11%). NFHS both in India and Kerala also shows an increasing trend in female headship. As per NFHS-5 (2019-21), FHHs in Kerala is 24 percent which holds the second position after Meghalaya.

Several studies reported that these households are in a poor economic situation (Unisia and Datta, 2005; Chant, 2003; UNDP, 1995:4; UN, 1996:6; UNIFEM, 1995:4 cited in Marcoux, 1997; Bharat, 1986; Kotwal & Prabhakar, 2009). Whereas, some of the studies argue: 'they are not at all poor' (Dreze and Srinivasan, 1995; Makat Jane,1990). While some studies report that the arguments relating to female headship and poverty are still ambiguous (Marcoux, 1999; Chant, 1993; Rosenhouse, 1989).

Because of the growing nature, and the existing diversity among female headship, as well as the persisting ambiguity between female headship and

poverty, the researcher identifies the situations of FHHs in Kerala, where the proportion of female headship is very high (23%) (Census of India, 2011). With this background, the researcher seeks to address the following guiding questions.

- What are the reasons for the creation of female-headship in Kerala?
- How does the female-headed household differ from its male-headed counterparts in Kerala?
- What are the outcomes and vulnerabilities of female headship as compared with the women from their male-headed counterparts?
- What are the coping strategies adopted by them after becoming head of their households?

1.6 Objectives

The study aims at looking into the Vulnerability of female-headed households in Kerala. It also elucidates the coping strategies adopted by them in different circumstances. Based on the research problem stated above, the study has the following specific objectives

- To examine the socio-economic and demographic characteristics of a household headed by women in Kerala.
- To investigate the extent of income and asset vulnerabilities of the household headed by women in Kerala.
- To measure the outcome/empowerment of households headed by women in Kerala as compared with the women from their male-headed counterparts.
- To assess the coping strategies of women after becoming the head of their households.
- To explore the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies.

1.7 Hypothesis

Given the background to the research problem, the present research is guided by the following working hypotheses.

- Vulnerabilities among female-headed households in Kerala influence their empowerment and coping strategies.
- Coping strategies adopted by the female-headed households in Kerala influence their empowerment.

In order to prove the working hypothesis several sub hypothesis were also been employed for the study. Which have been explained in the upcoming chapters.

1.8 Rationale and scope of the study

Kerala is well known for its achievement in the area of social and human development indicators such as female literacy, low maternal, infant mortality, and a healthy sex ratio as compared to the other Indian states (Economic review, 2016). Whereas, one of the major changes today is the household headed by women. They are identified and defined for the first time during the decades of the seventies. In India, especially in a state like Kerala women-headed households arise due to the factors like the death of a husband, desertion by a husband or divorce, etc. It is generally reported that these households are in poor economic situations (Chant, 2003; UNDP, 1995:4; UNIFEM, 1995:4 cited in Marcoux, 1998; UN, 1996:6) and are disadvantaged in terms of education, remunerative job, household responsibilities, credit, and capital. Furthermore, they are also deprived of stress and psychological problems regarding their children's future as compared to other women in male-headed households. Studies also testified that economic crises are the major problems faced by these households (Salam & Dlamini, 2011 Kotwal & Prabakar 2009) followed by emotional and other socio-cultural barriers.

In the social sphere also, they face isolation and discrimination due to the permanent and temporary absence of their partner. In most cases, they face, economic, social, and cultural vulnerabilities and stress related to family, financial, parenting, etc, which often leads to low empowerment and high possibilities for

coping among these households. Studies also reported that female headship is a targeting indicator to arrest and analyze poverty, especially in developing countries (Peters, 1983; Varley, 1996; Desai & Ahmad, 1998).

In almost all states of India due to male domination over families, - the role, contribution, and responsibilities of women are often left behind. The present study attempts to sketch out such phenomenon and the coping strategies adopted by women to overcome such situations and vulnerabilities. The study is limited to female-headed households in Kerala with special reference to Malappuram and Thrissur District, which focuses on the vulnerability empowerment and coping strategies of women who are heads of their households. Significant proportions of women from male-headed households were also selected for comparative purposes. Women aged 25 and above were selected for the survey. The study assesses the vulnerabilities and coping strategies of women in terms of their marital status only (whether they are widowed, divorced, unmarried, or deserted). Since the study focuses on highlighting the reasons, issues, and impact of FHHs, strictly as an attempt that is untold and non-examined on similar studies made so far, would become a different one, which itself makes this study a significant one.

1.9 Data source and methodology

The study makes use of both primary and secondary data to full fill the objectives. To understand the proportion of female-headed households at both national and regional levels, data from District Census Hand Books (DCHB), and various issues of Economic Review, published by the State Planning Board are used. The data on the background characteristics of sample Panchayat are collected from the reports on Panchayat Level Statistics for respective districts published by the Department of Economics and Statistics, Government of Kerala were employed. Details about the creation of FHHs and other features are obtained from reports on National Family Health Survey (NFHS) published by International Institute for Population Sciences Mumbai. Similarly, data have been extracted from the Census of India, NFHS (various rounds), and Kerala Migration survey (various rounds). Other periodicals and journals have been reviewed to get an overview of the topic.

However, to address their vulnerabilities and coping strategies secondary data sources are not sufficient enough. Both Census and National Family Health surveys provide information about their proportion only. Thus, the primary data have been collected to capture their socio-economic and demographic characteristics, vulnerabilities, and coping strategies in a deep-rooted manner. A detailed methodology has given in chapter -3.

1.10 Limitations of the study

1) **The identification of female-headed households as well as defining them under a self-reported survey is a big task.**

The first issue faced by the researcher at the initial stage of the survey was the ‘identification of the female-headed households. In a country like India and a state like Kerala, strong patriarchal values, and an element of men’s authority still exist. As a result, women are not normally considered the head of the household if a husband /elder member is present. In such households, despite women’s economic contribution and roles and responsibilities, an elder member or partner will usually take the authority of headship. Thus, women report themselves as head of the household only in the absence of the male partner as a result of (i) spinsterhood, (ii) widowhood, and (iii) divorce/desertion. Such errors would underestimate the actual number of FHHs.

2) **Lack of availability of data at the national, regional, zonal, and local levels.**

Another limitation faced by the researcher was the lack of availability of data at the national, regional, zonal, and local levels. Information concerning to FHHs is found in some literature only which is very scanty and focuses only on some areas. Thus, the study lacks the support of many secondary data. Another major obstacle is that the researcher has taken only two districts for the field survey to analyze the situation of female-headed households in Kerala due to lack of time and practical difficulties.

1.11 Chapter design

- Chapter 1** Design of the study, review of literature, research gap, statement of the problem, objectives, hypothesis, rationale, and scope of the study, data sources and methodology, limitation of the study, and chapter scheme.
- Chapter 2** The Conceptual and theoretical background of the study.
- Chapter 3** Data source and Methodology.
- Chapter 4** Female-headed households an overview.
- Chapter 5** Socio-economic and demographic profile of female-headed households in Kerala (primary survey).
- Chapter 6** To investigate the extent of income and asset vulnerabilities of the household headed by women in Kerala.
- Chapter 7** To measure the outcome/empowerment of FHHs in Kerala.
- Chapter 8** To assess the coping strategies of women after becoming the head of their households and, to explore the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies.
- Chapter 9** Summary of findings and conclusion.

CHAPTER 2

THE CONCEPTUAL AND THEORETICAL BACKGROUND OF THE STUDY

CONTENTS

2.1	Introduction.....	42
2.2	Conceptual framework on female headship, vulnerability, and coping strategies.....	42
2.3	Theories on the emergence of female-headed households.....	44
2.4	Theories on poverty and households inequality.....	44
2.5	Theories on psychological problems of female-headed household.....	46
2.6	Theories on low social status and vulnerability.....	47
2.7	Sustainable Livelihood Approach.....	51
2.8	Conclusion	53

2.1 Introduction

This chapter has been divided into two parts. The first part explains the conceptual framework of the study about female headship, vulnerabilities, and coping strategies. From the second part, we get an overview of the existing theories on the emergence of female headship and their socio-economic vulnerabilities. The theories presented in this section are interdisciplinary and are subjected to the thoughts of some policymakers and theorists since 1870, which have been classified under the relevant themes such as (2.3) Theories on the emergence of female-headed households. (2.4) Theories on poverty and intra-household inequality (2.5) Theories on psychological problems of female-headed households (2.6) Theories on the socio-economic status of women.

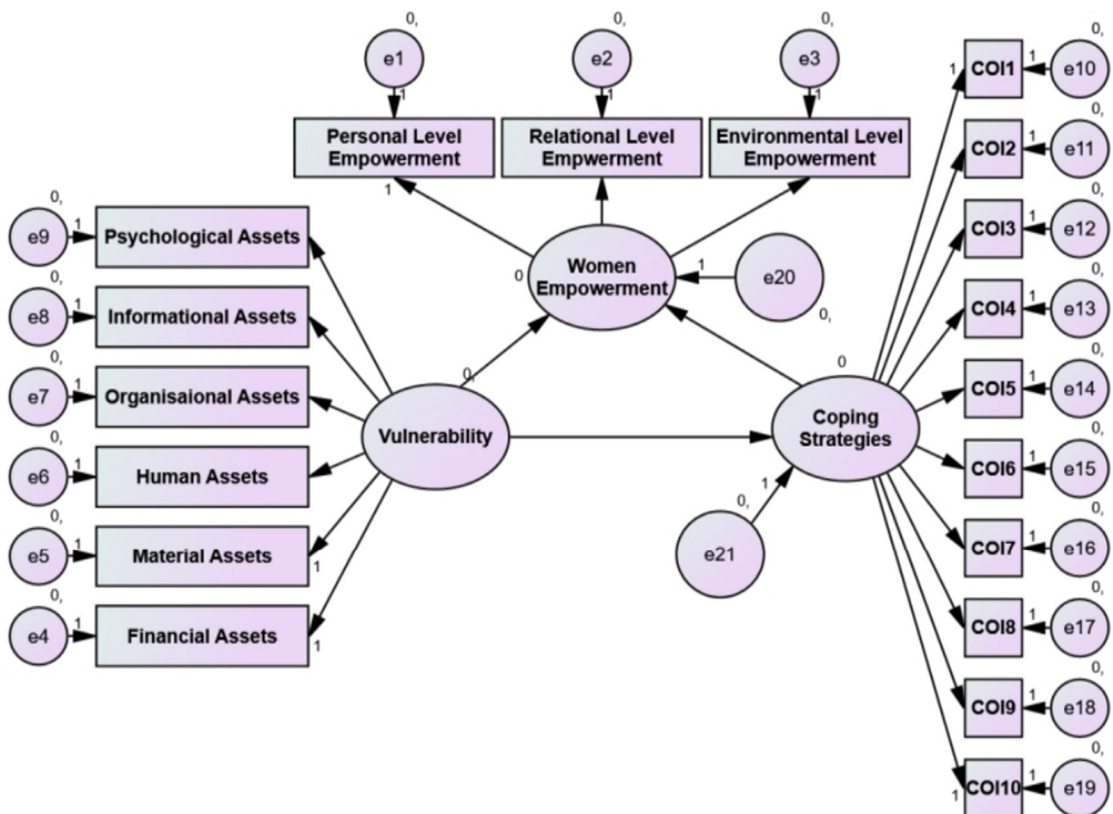
2.2 Conceptual framework on female headship, vulnerability, and coping strategies

In developing countries, gender has a historical connection with the occurrence of poverty and vulnerability. Its magnitude and growth rate vary widely across countries and regions. In most cases, women are suffering the dual disadvantages emanating from gender and poverty and thereby collapsing them into a feminization of poverty (Rustagi, Sarkar, Joddar, 2009; Chand, 2004). Studies from both developed and developing countries reveal that households headed by women account for at least one in 10 households and in more than two-thirds of the cases they are poor and vulnerable than their male-headed counterparts (Chant, 2003:1) cites for example (UNDP, 1995:4; UN, 1996:6; UNIFEM, 1995:4 cited in Marcoux, 1997). In most cases, they are exposed to three types of burden such as gender burden, household burden, and headship burden. These often resulted in many issues, while carrying out different household affairs and activities both inside and outside of the household. Furthermore, child-raising, limited job opportunities, and feeble social supports were major constraints that FHHs are facing. This situation often forced them to resort to different survival strategies to sustain their life and dependents. Moreover, the fewer option for ex-ante and ex-post coping strategies also added to their vulnerabilities.

The main focus of this study is to assess the vulnerabilities of female-headed households in five types of assets such as psychological, informational, organizational, material financial, and human assets. It also measures their empowerment in terms of personal, relational, and empowerment level indicators. Finally, it shed light on the various adaptive and coping strategies of the household headed by women, in the form of formal transfers such as a pension, free loan, free houses, and informal transfers from family, relatives, and friends including free labour, food grains, cloths, etc. The vulnerable female-headed households may adopt various coping strategies and finally become empowered is the main highlight of the study. Thus, it outlines the interconnection between vulnerability empowerment and coping strategies of a household headed by women in Kerala, which have been given in the upcoming chapters.

The following figure shows the analytical framework of the study

Figure 2.1 A hypothesized conceptual model for the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies.



Sources: Calculations based on primary survey

2.3 Theories on the emergence of female-headed households

2.3.1 Theories on Population, unemployment, and migration

Ancient philosophers like Confucius (China), Kautilya (India), Plato (Greece), Adam Smith, David Ricardo, and Malthus have given a significant contributions to the theory of population and its dynamics. According to their view, the world population has been growing continuously and it brings changes in economic and social organization (Marx, K., 1972; Malthus, 1872 & 1992). With the rapid increase in population, new job seekers become unemployed or become compelled to accept low wage jobs or migrate abroad which, ultimately leads, their female partners to become head of their households either by entering into the labour market or accepting the functional responsibilities with the absence of their male partners. In Kerala, a significant proportion of female headship forms especially among the low-income families, owing to illness, irresponsibility, unemployment, or because of the physical handicaps of their male spouse. (Gulathi 1993, Vargees 1990). As a result, more than 35% of the households in Kerala are supported by female earnings. (Franke & Chasin, 1996; Vargheese 1990) .

The neoclassical theory of migration, by Harris and Todaro, (1970) states that migrants move into those places where wage and economic conditions are more favorable to them. The factors like poverty, lack of employment opportunities in the home country, attractive jobs, and salary of the host country, are the major causes behind the international migration. This male out-migration from the place of origin to destination often leads to the emergence of a significant number of defacto-headed households in the state.

2.4 Theories on poverty and households inequality

2.4.1 Feminisation of poverty

The feminization of poverty is an ongoing and inevitable process and it is intrinsically linked with the feminization of household headship (Chand, 2004). There are three main reasons that prima facie likely to make women poorer than

men which are, (1) differences in entitlement and capabilities, (2) heavier work burden (3) constraints on socio-economic mobility, and smaller network externality owing to cultural legal, and labour market barriers (Sharma 2017; Moghadams, 1997). According to Northrop (1990) and Conrad (1994), the poverty among female-headed households is the result of changes in the demographic composition and a reduction in their minimum levels of earnings. Marcoux, 1998 has incorporated some additional variables while estimating the feminization of poverty such as intrahousehold inequality, mortality, health, nutrition, time allocation, and individual capability factors (access to education and other resources along with the per capita income).

As said by Pearce (1978), and Northrop (1990), the feminization of poverty is linked with sex segregation in the labour market, especially in the manufacturing and service industry along with the composition of growth of the economy. Their study infers that men and women have different marketing experiences, usually, male workers are relatively concentrated in manufacturing and female workers are relatively in the service sector. Employment in the service sector generally pays less per hour, as it is more likely to be part-time and is more likely to be intermittent. But at the same time, the concentration of the male workers in the manufacturing sector is offering high earnings, which enable them to reduce poverty and better infrastructure to a large extent.

Apart from the reasons above, family structure and its compositions have a profound impact on determining the welfare of the household, poverty, and labour market participation. According to Marcoux, 1998, FHHs contain an excess of female members and a high dependency ratio as compared with their male-headed counterparts. Likewise, the age of the head is another determinant of poverty. For example, poverty among very young and old heads is higher as compared to those middle-aged heads, and there is also a probability of decreasing their wealth as their age increases. It is also evident that female poverty is inversely related to the level of education. A study set in South Africa highlights the inverse relationship between the education of the heads and their poverty status (Maitra, 2015). A

similar result was found in Indonesia where better-educated households are less likely to be poor (Widyanti, 2010; Mok, K. H., & Lo, Y. W., 2007) Likewise, Meng and Gregory (2006) also testified the association between years of schooling and the probability of being poor in China.

2.4.2 Gender and cooperative conflict theory

According to Sen (1987), Women's development is closely related to well-being, agency, and cooperative conflicts. This theory implies that there is an intra-household inequality in the distribution of resources between men and women in a typical patriarchal setup. In such an arrangement, males tend to secure a higher share in comparison to their female counterparts. The Nash bargaining model of marriage also explained similar findings. As per this model, intra-household inequality in the allocation of resources between men and women is the main cause of their low entitlement and capabilities. In a typical patriarchal setup, it is often observed that the husband always has a dominant authority in decision-making on behalf of his wife which is not at all desirable (Visara & Visara 1985). If women and children relinquish proper leisure, education, food, and mobility as that of their male counterparts, they would be in a position to demand their fair share (Lundberg & Pollak, R. A., 1994).

2.5 Theories on psychological problems of female-headed household

2.5.1 The anomie theory and family structure

The idea of anomie means a lack of normal, ethical, or social standards. This concept emerged in 1893, and it was introduced by Durkheim (2014). It explains the psychological status of women when they become the head of their households. This theory exhibits that, the absence of a male partner, among FHHs, often make a feeling of worthlessness, frustration, lack of purpose, and desire, which ultimately leads them into crime or criminal activities due to the lack of any foreseeable alternatives, in their life (Cohen, A. K., 1965).

2.5.2 Psychological theory

The problems of female-headed households are well studied and explained under the psychological theory of Adams, Sybil and summer. In psychology, theories are used to provide a model for understanding human thoughts emotions, and behaviors. The cognitive and behavioral approach of psychological theory explicates that, a person's behavior is determined by their expectations, cultural and psychological aspects (McLeod, S., 2007). As per the theory, female-headed households are facing problems like stress, psychological illness, and depression because of the permanent or temporary absence of their male partner. This theory also focuses on the worthlessness and isolation of the female head from family and their community.

2.5.3 The constructional Functional view

As per the sociocultural theory of Vygotsky (1978) parents, relatives' peers, and society have an important role in forming a higher level of functioning of a household. Thus, the Lack of one spouse especially a man in a family often causes disorder or increase in the role and responsibilities of women in many aspects (Durkheim, 2014 & 1984). The constructional functional view explains the ways people interact with others and the culture they live to shape their mental abilities. In reality, female-headed households are isolated from their peer group, society, and even from their self which also has a significant impact on the structure and function, of their households (Chand, 2007).

2.6 Theories on low social status and vulnerability

2.6.1 Social stratification theory

Weber introduced a theory of 'stratification hierarchy' to describe the system of social standing based on class, status, and power. It was written shortly in 1922 and translated into English in 1940. According to Weber, social stratification is a trait of society and not a reflection of individual differences. It also involves a categorization of people on wealth, income, race, education; occupation, etc. For

example, historically hunter-gatherer, tribal and band societies can be defined as socially stratified. Here the degree of social inequality determines a person's social stratum. This theory illustrates that social inequality is the subject matter of social stratification (Ragnedda, M., & Muschert, G. W; Weber, 2015). Thus, it has got wide attention and applicability in gender studies and the studies on female headship as well. In the context of female headship, usually widowed (de jure) heads are more socially stratified, and hence are more socially vulnerable as compared to others (Chen, 2000).

Acker's (1973) study of 'woman and social stratification' enhanced the economic and social disadvantage of women due to social stratification. It explains the role of marriage and women's status. As per his view, marriage constitutes downward social mobility and reduced opportunities for women. Here the degree of inequality towards women depends on the social stratum she belongs. For example, the position of an upper-class housewife may be much more highly valued in the overall stratum than the position of a lower-class housewife. Female does not have any role in the stratification process, and their status is often conferred. This means that the status of women depends upon the status of men in the society besides the class, and cast she belongs to. Consequently, the social stratification based on gender often gives low entitlement and bargaining power to women within and outside the households.

2.6.2 Microstructural theory

The microstructural theory explains the income constraints experienced by the female-headed household due to the absence of their male earning members. The lack of male earning members in a family often added to the responsibility of FHHs as a provider, caretakers, and homemakers. The limited or inconsistency of income also creates stress in the provider role and they may be not able to invest in their children in ways that other parents (male-headed) do. Such as, providing good education, buying their children books, or entering them in the boy scouts, girl scouts, or summer camp. Furthermore, the income constraints also affect their home-making role, routines, chores, meals, and bedtime irregular as it put pressure

on them to maintain social relations. Thus, the microstructural theory argues that FHHs experience three types of problems such as economic stress, role strain, and problem-related parenting.

2.6.3 Bargaining theory

Gary Stanley Becker was an American economist who received the 1992 Nobel Memorial Prize in economic sciences and proposed the first model of family decision making or household collective choice. As per this theory, a women's economic and social status relative to her husband depends on her bargaining position. The greater a person's ability to physically survive outside the family, the greater will be the bargaining power and vice versa (Schultz, 2001; Udry et al., 1995). This bargaining strength or power of an individual can be divided into two; some are quantifiable, others are less so, such as communal and external support systems, social norms, etc. The bargaining power of a woman depends upon several factors like entitlement of some assets such as ownership of land over assets especially arable land, access to employment and other income-earning opportunities, access to communal resources, access to traditional common support system, etc (NGO, state, social support system). Studies also support that land ownership of women would also have a stronger fallback position and therefore greater bargaining power than landless women (Nash, 1950; Tisdell, 2008; Pollak, 2003).

The Becker theory better explains that female has low entitlement because of low bargaining power as they yield lower returns on investment in improving their human capital eg, education, and health. Moreover, their contributions are seen as being less valuable than men's in all aspects (Sen, 1990) which also leads to their vulnerability.

2.6.4 Capability approach

Capability approach pioneers Amartya sen and Martha Nussbaum recognize empowerment as an important aspect of human development. This approach is very much useful for evaluating the quality of life, freedom, or well-being of the

people. It also enables us to distinguish between women who live in oppressive worlds. According to Sen, women in traditional societies may lack a notion of personal welfare because their identity is too closely tied to the interest of the households. In this approach, he states that the failure of entitlement and capabilities are the prime cause of the vulnerabilities among female-headed households which often leads to low empowerment and high coping among these households.

Generally, a household headed by women faces a high set of restrictions, a set of responsibilities, and limited endowment, especially in developing countries. This, in turn, constrains their capability to live a healthy and fulfilling life, particularly during their early stages of headship. Among female headship, de jure -heads suffer from high levels of material deprivation, limited job opportunities & social mobility, social isolation & exclusion along with poor physical health as compared to de facto heads (Chen, 2000; Agarwal, 1994). The material deprivation in widowhood is very common as it is mainly due to the lack of property rights of securing their husband's land following his death. Furthermore, the employment restriction placed on them may limit their capacities to survive and support their children. In most cases, these households are also subjected to a lack of social networks due to their social stigmatization (Chen, 2000). Moreover, the psychological aspects and stress among FHHs were not only linked to losing a spouse but also related to coping with the circumstance of the death of a husband (e.g. worries, blaming, debt) and the new responsibilities (Sen, 1992).

With this background, Sen's Capability approach unveils that intra-household inequality is a conventional measure of deprivation of women and it is based on income inequality. The female agency or empowerment enables women to mediate intra-household power relations and improve their opportunities for achieving their well-being and capabilities (Sen, 1990, 1991, 1985). Furthermore, female labour force participation and literacy are the means of strengthening women's agency and intra-household bargaining power as well as their intra-household decision-making.

2.7 Sustainable Livelihood Approach

The sustainable Livelihoods Approach is an analytical device for improved understanding of livelihoods and poverty as identified by Scoones (1998) and Ellis (2000). Therefore, this approach is a foundation for the analysis of the poverty of rural women in general and female heads in particular. This framework asserts that poverty eradication is realized through augmenting of livelihoods of poor people, especially for FHHs. In this context, a livelihood is comprised of capabilities, assets (including both material and social resources), and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base' (Scoones 1998:5). According to Scoones, 1998, there are three kinds of rural livelihood strategies such as agriculture intensification, livelihood diversification, and migration.

The authors like Carney (1998:4), Chambers and Conway (1992), and Scoones (1998:5) have recommended that the institution, organization, and social relation are the main features of the livelihood approach. According to Ellis (2000), a livelihood is comprised of access to productive assets such as natural, physical, human financial, and social capital. The activities and the access to these productive assets together determine the living gained by the individual or households.

Women especially a household headed by women have uncertain livelihood strategies due to institutional barriers and other socio-economic constraints. Besides, these households obtain insufficient productive resources to induce subsistence production or income or consumption which follows their vulnerability. This framework identifies five types of capital assets that people can build up and/or draw upon human, physical, social, financial, natural, and political capital. These assets can be substituted for each other to a limited extent, making up livelihood frameworks. For instance, the poor can easily replace with shortages of

financial capital by drawing on social capital such as family or neighborhood (Carney, 1998).

Human capital (H) refers to that skills, knowledge, ability to labour, and good health are important to the ability to pursue different livelihood strategies. Low human capital is both a cause and a consequence of poverty, and it interacts with other categories—for instance, the poor often cannot afford to send their children to school or clinics, thereby reinforcing low productivity and perpetuating dependence on ‘low input, low output’ agriculture. **Physical capital (P)** includes the basic infrastructure (transport, shelter, water, energy, and communications) and the production equipment and means that enable people to pursue livelihoods. **Social capital (S)** focuses on the social resources (networks, membership of groups, relationships of trust, access to wider institutions of society) upon which people draw in pursuit of livelihoods. **Financial capital (F)** measures the financial resources which are available to people (whether savings, supplies of credit, regular remittances, or pensions) and which provide them with different livelihood options. **Natural capital (N)** involves the natural resource stocks from which resource flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity, environmental resources). Finally, the **political capital** of the local communities—measures the extent to which they receive support from the Central government and can exert influence over local political processes to access public resources.

From the sustainable livelihood approach, it is clear that the lack of accessibility to human, physical, social, financial, and natural capital are the major cause of their vulnerability. Furthermore, it also adds that poverty or vulnerability is a multi-faceted process. It arises not only from a low level of income but also from low and deteriorating stocks of access to all types of assets and resources, at the community as well as at the household level.

2.8 Conclusion

The above theories and approaches shed light on the creation of FHHs and the psychological and socio-economic aspects of their vulnerability. For example, theories on population, unemployment, and migration address the formation of FHHs across the world. The concept of feminization of poverty discloses the poverty of women in terms of differences in entitlement and capabilities, (2) heavier work burden (3) constraints on socio-economic mobility, and smaller network externality. Gender and cooperative conflict theory explain the vulnerability of FHHs on account of the intra-household allocation of resources between males and females. The anomie theory and family structure as well as psychological theory describe the psychological problem or status of women when they became head of the households. The constructional Functional view reveals the increased role and responsibilities in the life of female-headed households. Social stratification theory sheds light on the social inequality toward the FHHs, especially in the context of widows. Microstructural theory explicate the income constraints experienced by the female-headed household due to the absence of their male earning members. As per bargaining theory, a women's economic and social status is determined by their bargaining power, which is based on various aspects like her ownership of land over assets especially arable land, access to employment and other income-earning opportunities, access to communal resources, access to traditional common support system (NGO, state, social support system). The Becker theory better explains that female has low entitlement because of low bargaining power, which often leads to intra-household discrimination and vulnerability. As per the capability approach, a household headed by women faces a high set of restrictions, a set of responsibilities, and limited endowment, especially in developing countries. These differences in entitlement and capabilities often cause low empowerment among women, especially in the context of a household headed by women. The sustainable livelihood approach explains that poverty eradication is realized through augmenting the livelihoods of poor people, especially for FHHs. Women especially household headed by women have uncertain lively hood strategies due to institutional and other socio-economic constraints which follows their vulnerability.

From the theories listed above the researcher has selected widely accepted three approaches as the theoretical underpinning of this study (1) the sustainable livelihood approach and (2) Sen's capability approach (3) Feminization of poverty, for obvious reasons vulnerability, empowerment, and coping are the core concept of this study.

CHAPTER 3

DATA SOURCES AND METHODOLOGY

CONTENTS

3.1	Introduction	56
3.2	Operational definitions.....	56
3.3	Constructs and items related to vulnerability among female-headed households in Kerala	58
3.4	Constructs and items related to empowerment among female-headed households in Kerala.....	59
3.5	Constructs and items related to the coping strategies of the female-headed households.....	60
3.6	Data Sources	60
3.7	Sampling design	61
3.8	Statistical tools and software packages used for data analysis.....	66
3.9	Conclusion.....	67

3.1 Introduction

In the preceding chapter, the researcher has discussed the conceptual and theoretical background of the nature, causes, and consequences of female-headed households across the world. The methodological framework outlined in this chapter has been divided into two parts. The first part of this section explains the concepts and constructs used in the study and also provides the sources of secondary data. The second part portrayed the methodological aspects of the study including sampling design, selection of the study area, selection of the ward, and survey method. Finally, the chapter ends by providing an overview of the objectives with Statistical tools and software packages used for data analysis. The study proceeds with both quantitative and qualitative information to satisfy the objectives. The researcher sought similar information from women in male-headed households for comparison purposes. Secondary data were also consulted to substantiate the outcomes obtained by qualitative and quantitative methods.

3.2 Operational definitions

3.2.1 Female-headed households

To define female-headed households, the study has adopted a similar methodology as given by the census of India and household-based sample survey. As per household-based sample surveys and Censuses, it is up to the respondent to define who is head (Institute for Resource Development/Macro International Inc., 1990). This implies that household heads are simply those members which have been identified by the respondents as heads of the respective households. This person may be appointed as head either based on age (older)/ sex/economic status (main provider), or some other reason. As per the study, it is up to the respondent to define who is head. If the respondents reveal that they are head, consider them as the sample for the survey. Here, headship may fall upon women based on their economic contribution/decision-making power/ responsibility /authority or anything else. Even though the definition of ‘head of the household’ adopted by the Indian Census is inadequate, the researcher follows the same methodology because it leaves everything on the enumerators.

3.2.2 Households

For this study the terms household and family used interchangeability. 'Household' is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. The persons in a household may be related or unrelated or a mix of both (Census of India, 2011).

3.2.3 Vulnerability

This study operationally defines vulnerability as a source of deprivation and another dimension of poverty. It is a human condition or process resulting from physical, social, economic, and environmental factors. It also measures the resilience against a shock-the likelihood that a shock will result in a decline in well-being.

3.2.4 Empowerment

In this study, the concept of 'empowerment' measures the positive aspects or outcomes of becoming a female-headed household. By adopting the methodology of Oxfam, in this study women empowerment has been measured at the individual level to examine, changes in the power relation at the personal, relational, and environmental levels. Changes at a **personal level** refer to changes taking place within the person. Changes at the **relational level** refer to changes in the relationships and power relations within the woman's surrounding network. Finally, changes at the **environmental level** take place in the broader context. These can be informal changes, such as social norms, attitudes, and the beliefs of wider society; as well as formal changes in the political and legislative framework.

3.2.5 Coping strategies

Coping refers to the process by which a person attempts to manage stress full demands. There are two major forms of coping. Problem-focused coping and emotion-focused coping. This study mainly focuses on the problem-focused coping of the female-headed households in Kerala, after the permanent or temporary absence of their spouse, due to death, divorce/separation, or due to the marginal

contribution of their male partner. In this research context coping is operationally defined as the effort taken by the female head to overcome their vulnerability as well as the methods adopted by them to meet the financial problems/demands to survive/sustain or maintain their standard of living.

3.3 Constructs and items related to vulnerability among female-headed households in Kerala.

3.3.1 Asset-based vulnerabilities of the household headed by women in Kerala

The vulnerabilities of the household headed by women in Kerala, in the context of Malappuram and Thrissur districts have been tested by using the various type of assets such as psychological assets, informational assets, organizational assets, material assets, financial assets, and human assets. This framework has been widely used in empowerment and vulnerability analyses in recent years.

3.3.1.1 Psychological asset

The psychological assets of the female-headed households have been examined by using a Likert scale ranging from strongly disagree to strongly agree with statements on their psychologically affected variables such as personal worries, stress relating to household responsibilities, exclusion from family & society, and isolation from self.

3.3.1.2 Informational assets

Informational assets of the female-headed households have been classified under their frequency of television watching; frequency of newspaper reading; awareness about the community program in the locality, perceived changes in access to information, etc.

3.3.1.3 Organizational assets

Organizational assets have been focused on the participation of female-headed households both in family and community activities. It comprises their

involvement in Panjayath meetings, Participation in Grama sabha, participation in public protest, membership in any organization, Participation in family, religious and recreational activities.

3.3.1.4 Material, financial and Human assets

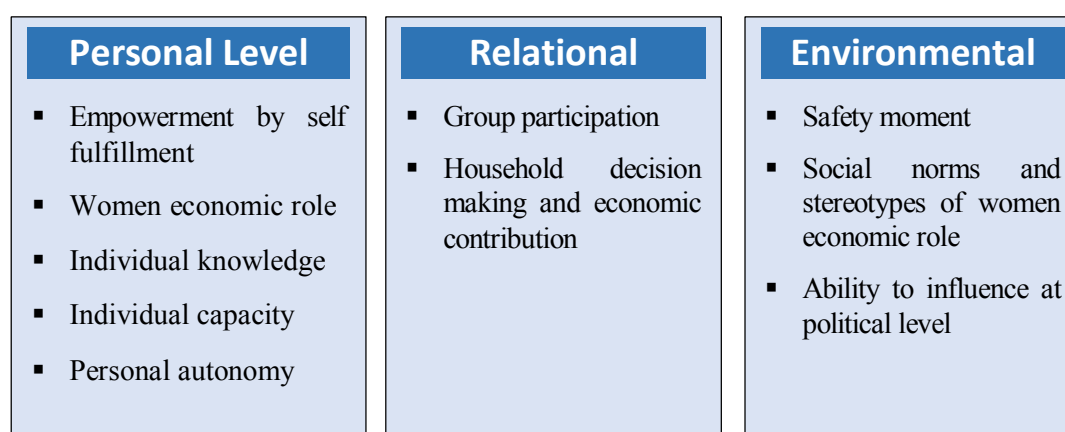
Material assets play an important role in assessing the vulnerability of female-headed households, especially in the context of Kerala. It includes a variety of items such as land ownership; tool ownership; ownership of durable goods; type of housing, etc. Financial asset refers to their employment history; sources of household income, household expenses, savings, etc. Human assets involve their literacy levels, numeracy levels, and finally the health status of the female-headed households in Kerala.

3.4 Constructs and items related to empowerment among female-headed households in Kerala

3.4.1 Individual-level empowerment among female-headed households in Kerala

Following variables have been used to measure the individual level empowerment of households headed by women in Kerala

Figure 3.1 *Individual-level empowerment among female-headed households in Kerala*



Source: Oxfam G.B empowerment framework

3.5 Constructs and items related to the coping strategies of the female-headed households

To measure the coping strategies of the household headed by women in Kerala, both formal and informal transfers from family and community were taken. Formal transfer refers to the support from government sources in the form of pension, free loans, free houses, supplementary food, scholarships, and other educational assistance for their children in female-headed households. These benefits are provided by formal organizations such as Government, NGOs, Panjayath, schools, and other agencies. Informal transfer refers to the support from informal sources such as family members, relatives/friends, neighbours in the form of cash loans, cash gifts, free labor, food grains, and cloth.

3.6 Data Sources

The study makes use of both primary and secondary data to fulfill the objectives. To understand the proportion of female-headed households at national and regional levels, data from District Census Hand Books (DCHB) published by the Directorate of Census Operations in Kerala and data from various issues of Economic Review, published by the State Planning Board are used. The data on the background characteristics of sample Panchayats are collected from the reports on Panchayat Level Statistics for the respective districts which are published by the Department of Economics and Statistics, Government of Kerala. Details about the creation of FHHs and other features are obtained from reports on National Family Health Survey (NFHS) published by International Institute for Population Sciences Mumbai. Similarly, data have been extracted from the Census of India, NFHS (various rounds), and the Kerala Migration Survey (various rounds).

Secondary data sources such as Census and National Family Health surveys provide only about the proportion of female-headed households in Kerala. Therefore, to address their vulnerabilities and coping strategies secondary data sources are not sufficient enough. Thus, a primary survey has been conducted in the Malappuram and Thrissur districts of Kerala to capture their vulnerabilities and coping strategies in a deep-rooted manner.

3.7 Sampling design

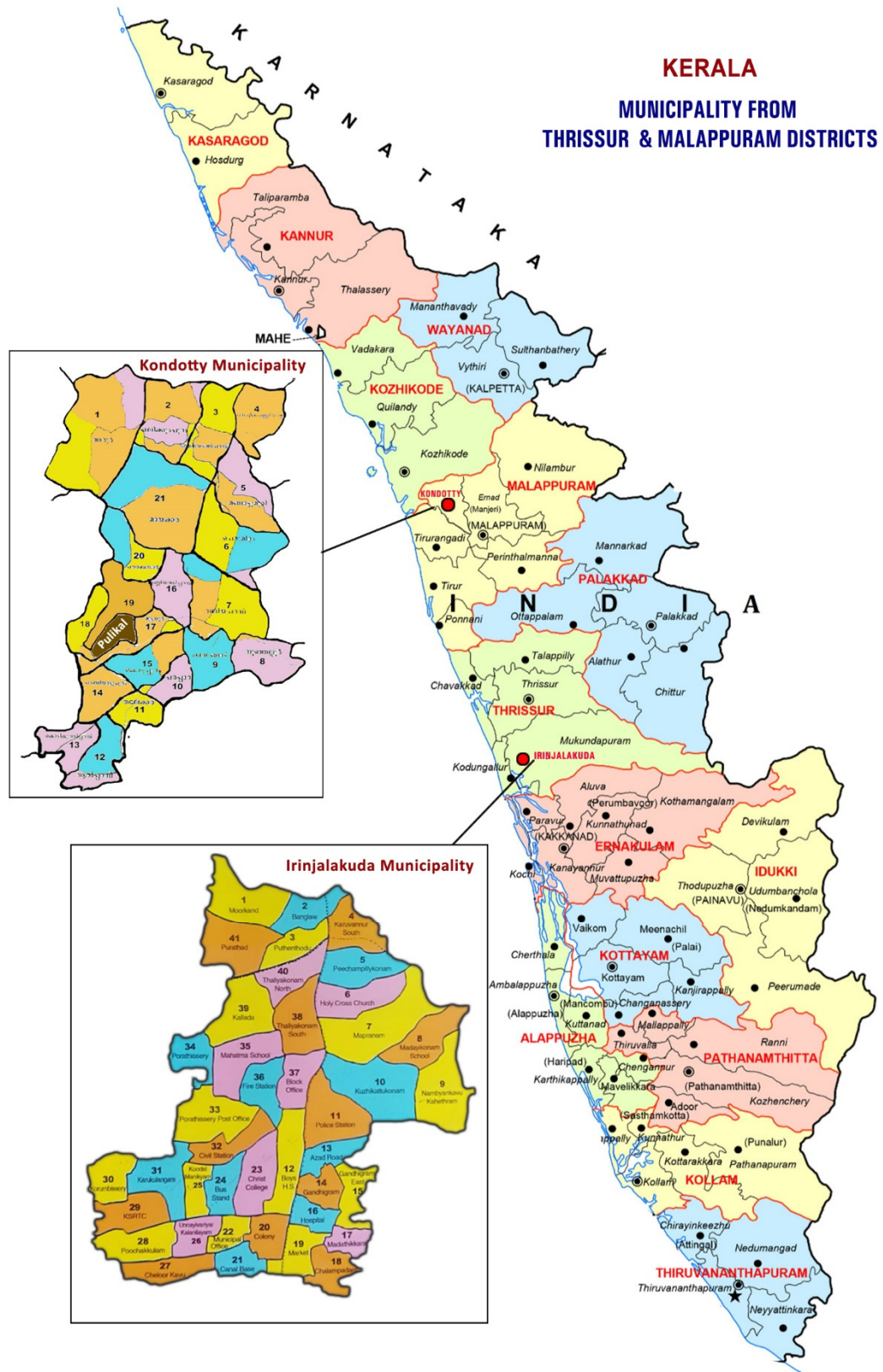
3.7.1 Primary data collection

The data were collected from Malappuram and the Thrissur district of Kerala. Data collection took place in two phases. The first phase of the preliminary survey was conducted at the end of December 2020. The second phase starts from April to September 2021, it covered individual interviews (key informant interviews), observation, and case studies. Out of 400 households surveyed, 193 households were female-headed. Thus for comparison, 193 male-headed households were also chosen from the remaining samples. Thus, altogether 386 households were selected for the survey. The sample size was determined by the sample size calculator by using the total number of female heads (77, 16370) in Kerala as per Census 2011 at a 95% confident interval.

3.7.2 Selection of the study area

The targeted groups of the study are female-headed households. Through house listing with the help of Gram Panchayat, Asha workers, and Anganwadi workers women-headed households were identified and surveyed. Literature, reveals that widowhood and migration are the major cause of the creation of female-headed households in Kerala. As per Census 2011, the highest proportion of women-headed households is found in the Malappuram district. Migration is the major cause behind it (12.6). When it comes to widowhood, Thrissur district holds the highest position owing to accidents and disease-caused death of their male spouse. Consequently, Malappuram and Thrissur districts were selected for the survey, and all kinds of FHHs (divorced, widowed, wives of migrant/unemployed, and never married) were selected from both districts in proportion to the total households in each ward. From Thrissur District - Mattathur Grampanjayath from rural and Irinjalakuda Municipality from the urban and Malappuram district- Pulikal Grampanjayath from rural and Kondotty Municipality from urban were selected to know the rural-urban characteristics deeply and separately. The samples were selected from each district in proportion to the total households in each Panjayath and Municipality. Thus from, Pulikal, Kondotty, Mattathur, and Irinjalakuda, the samples selected were, 80, 74, 107, 125 respectively.

Figure 3.2 Selection of the study area

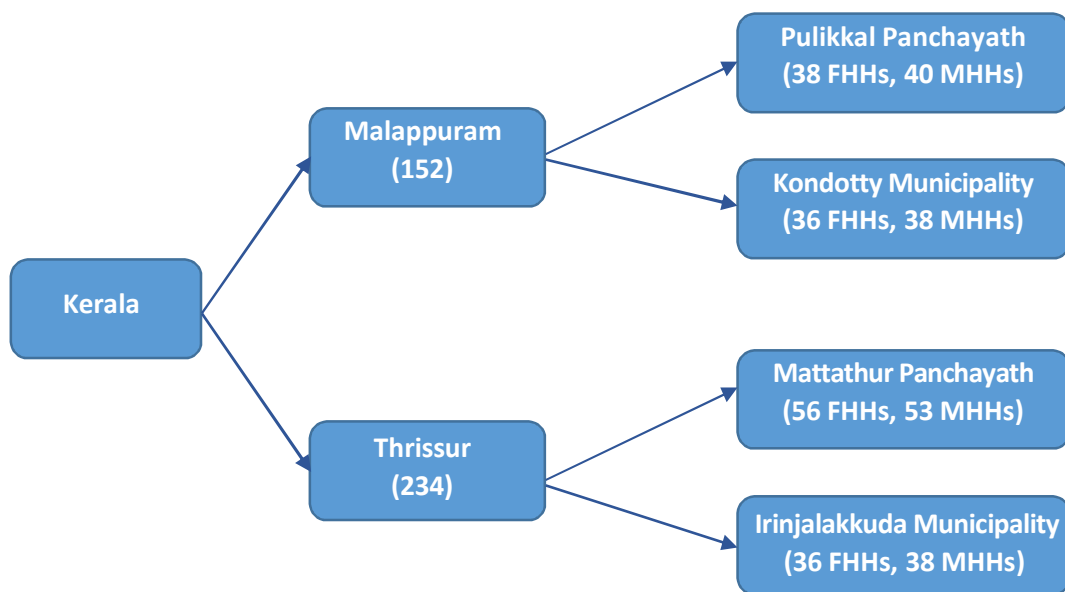


3.7.3 Description of the study area

- a) **Pulikall Grama panchayat:** is located in Ernad Taluk of Malappuram district of Kerala. It has a population of 40133 of which 19695 are males while 20438 are females as per Census 2011. The total number of households in Pulikkal consists of 10960 (Panjayath level Report, March 2021). This village has a high literacy rate (94.26 %) compared to Kerala (94.00) [Census 2011]. Among these, male literacy stands at 96.50 % while the female literacy rate was 92.12 %. The average Sex Ratio of Pulikkal village is 1038 which is lower than the state average of 1084.
- b) **Kondotty:** is a developing town, and municipality, located in Kondotty Taluk of Malappuram district. The total geographical area of Kondotty Municipality is 30.93 kilometers square with a total population of 59256 of which 28895 males and 30361 females. Total households in Kondotty Municipality consist of 14956 (Development report 2017-2022). The female Sex Ratio is 1051 against the state average of 1084. The literacy rate of Kondotty City is (95.07 %) higher than the state average (94.00 %). In Kondotty, Male literacy is around 97.25 % while the female literacy rate is 93.02 %.
- c) **Mattathur Grama Panjayath:** Mattathur is the biggest Panjayath in the Thrissur district. Its area is 103.11 (sq. km) and the total population consists of 45919 of which 22274 males and 23645 females (Census, 2011). The total number of households in Mattathur Grama Panjayath is 16513 (Panjayath level report, March 2021). The average sex ratio in Mattathur Panjayath (1102) is higher than the state average (1084). Whereas, the literacy rate (93.65 %) is slightly lower than that of Kerala (94%) with the male and female literacy being 96.41 and 91.19 percent respectively.
- d) **Irinjalakuda:** Irinjalakuda Municipality is located in Mukundapuram Taluk of Thrissur district of Kerala . It is one of the oldest Municipalities was formed on 8th February 1936 with an area of 11.24 square kilometers with 41 wards. The total population of this Municipality is 28741 of which 13,425 of

them are males and 15316 of them are females (Census, 2011). The total number of households consists of 21 500 (Development report 2017-2022). This Municipality shows the highest literacy (97.7 %) with male and female literacy, consisting of 98.43 and 97.20 percent respectively. In Irinjalakuda Female Sex Ratio is 1141 which is higher than the state average (1084).

Figure 3.3 *The flowchart shows the sampling design*



3.7.4 Selection of the ward

The next task of the primary data collection was the selection of wards. There are 12 Municipalities and 94 Panchayats in the Malappuram district. Out of it Pulikkal Panchayath from rural and Kondotty Municipality from urban were selected for the survey. From the Pulikkal Panjayath, out of 21 wards, Aroor (1st), Valiya Parambu (7th), Alparambu (12th), and Paurabazar (19th) were selected to represent the North, East, South, and West region. Whereas, the ward showing most urban characteristics such as Neettani (1st ward) Kondotty Town (11th ward), Melangadi (32th ward), and Parambatt (35th ward) were selected from Kondotty Municipality.

A similar structure was used for the Thrissur district, where, Mattathur Panjayath and Erinjalakuda Municipality were selected for the study. From the Mattathur Panjayath, out of 23 wards, Murikkingal (5th ward), Ompathungal (16th ward), Vellikulangara (10th ward), Mattathur Kunnu (19th ward) were selected to represent the North South East and West region of the panchayat. Likewise, the ward showing most urban characteristics such as Colony (20), Municipal office (22), Christ College (23), and Bus stand (24) were selected from Irinjalakuda Municipality. Altogether, 16 wards from both Malappuram and Thrissur districts were selected for the survey.

Table 3.1 Selection of the wards among Malappuram and Thrissur districts

Area of the study	Malappuram District		Thrissur District	
	Pulikkal Grama Panjayath	Kondotty Municipality	Mattathur Grama Panjayath	Irinjalakkuda Municipality
1.	Aroor (1 st ward)	Neettani (1 st ward)	Murukingal (5 th ward)	Colony (20 th ward)
2	Valiya parambu (7 th)	Kondotty (11 th)	Ompathungal (16 th)	Municipal office (22 th)
3	Alparambu (12 th)	Melangadi (32 th)	Vellikulangara (10 th)	Christ College (23 rd)
4	Paurabazar (19 th)	Parambatt (35 th)	Mattathur Kunn (19 th)	Bustand (24 th)
No. of wards sampled	4	4	4	4
Total number of wards	21	40	23	41

Source: Primary survey, 2021

3.7.5 Survey Method

Purposive sampling methods were used for the study. The ward showing the most socio-economic characteristics was selected purposely. The subject of the

study was women-headed households. Women informants from male-headed households (MHHs) were also interviewed for comparative purposes. From the selected sample households, data on socio-economic characteristics such as landholding, details of household members, employment status of members, household income, household monthly consumption expenditure, participation in the community, health status, vulnerability, and empowerment-related aspects were collected using a structured interview schedule from the FHHs as well as women from their male-headed counterparts. In case of their absence, information about them was received from other members of the respective households. Data were collected from April to September 2021. The interview schedule is prepared based on the schedules of the National Family Health Survey.

3.8 Statistical tools and software packages used for data analysis

- 1) The first objective of the study is to examine the socio-economic and demographic characteristics of the household headed by women as compared with the women from their male-headed counterparts. To examine the first objective, Percentage analysis, Graphs, cross-tabulation, and chi-square tests are used with the help of Microsoft Excel and IBM SPSS 21 software packages
- 2) When it comes to the second objective, ‘to investigate the income and asset vulnerabilities of the household headed by women in Kerala’ the study has divided into two parts. (1) Comparison of income across heads of households & social categories and to study the effects of income on socio-economic characteristics of the women-headed households in Kerala. For this, mean, standard deviation, independent t-test, one-way ANOVA with Post Hoc analysis, and multiple regression also were employed with the help of IBM SPSS 21 and IBM SPSS. The second part of the study includes a comparison of vulnerabilities across heads of households and measures the extent of vulnerabilities among female-headed households. Therefore, mean, standard deviation, independent sample t-test, and Second-order

Confirmatory Factor analysis (CFA) have also been done with the help of IBM SPSS 21 and IBM SPSS AMOS 21 software packages.

- 3) To measure the empowerment of households headed by women as compared with the women from male-headed counterparts. For this, the study has been divided into two parts (1) a Comparison of women's empowerment across heads of households (2) and to measure the extent of empowerment among female-headed households. For testing the third objective, -mean, standard deviation, independent-sample t-test, and Second-order CFA Analysis with the help of IBM SPSS 21 and IBM SPSS AMOS 21 software packages were employed.
- 4) To assess the coping strategies of women after becoming the heads of their households, Percentage analysis, Graphs, cross-tabulation were used. To measure the extent of coping strategies adopted by the female-headed households in Kerala, Second-order CFA has been done.
- 5) The fifth and final objective is to explore the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies- Co-Variance Based Confirmatory Factor Analysis (CB-CFA) and Co-variance Based Structural Equation Modeling (CB-CFA & SEM) techniques were applied with the help of IBM SPSS AMOS 21 software package.
- 6) Moreover, some simple statistical tools like averages, percentages, simple bar diagrams, pie diagrams, etc., also have been dependent on the study wherever find necessary.

3.9 Conclusion

The methodological framework outlined in this chapter has been divided into two parts. The first part explained the concepts and constructs used in the study including the operational definition of the household; household head; vulnerability; empowerment, and coping strategies. Moreover, it also shed light on the construct and item related to vulnerability, empowerment, and coping strategies of the household

headed by women in Kerala. The second part portrayed the methodological aspects of the study including sampling design, area of the study, and survey method. Finally, the chapter concludes with an overview of the objectives, Statistical tools, and software packages used for data analysis.

CHAPTER 4

FEMALE-HEADED HOUSEHOLDS: AN OVERVIEW

CONTENTS

4.1	Introduction	70
4.2	Nature and causes of female headship.....	70
4.3	Household composition and female headship in India.....	71
4.4	Household composition and female headship in Kerala.....	73
4.5	Socio-economic characteristics of FHHs in Kerala.....	76
4.6	Female headship in Kerala leading issues	77
4.7	Conclusion and scope for the primary survey	86

4.1 Introduction

This chapter provides an overview of the proportion of female-headed households in India and Kerala. It also sheds light on the nature, causes, consequences of female headship and their household compositions both in India and Kerala. The data sources such as Census reports, National Family Health Survey, Kerala Migration Survey, and Economic review were used in this study to explore the formation of FHHs. The chapter has been divided into the following subheads (4.2) Nature and causes of female headship, (4.3) Household composition and female headship in India, (4.4) Household composition and female headship in Kerala, (4.5) Socio-economic characteristics-of female-headed households in Kerala (4.6) Female headship and leading issues.

4.2 Nature and causes of female headship

Households headed by women are appearing to be on the rise both in developed and developing countries. Belarus (53 %), Ukraine (49.4 %), Swaziland (47.9 %), Eritrea (46.7 %), and Cuba (46.4 %) are the topmost five nations having the highest proportion of women-headed households in the world (World gender statistics, 2011). Among these, India occupies the 67th position worldwide (11 percent of 27 million households in India). Although they are relatively small in proportion, evidence shows that their share in the total is increasing in most of the regions. The states, where the proportion of female-headed households is higher than the national average, are Lakshadweep (43 %), Kerala (23.4 %), Meghalaya, and Goa (23 %). Among the Indian states, Kerala Ranks top in female headship (23.4 %) followed by Meghalaya and Goa. Whereas, Dadra and Haveli (5.61), Rajasthan (9.27 %), Jammu Kashmir (9.66 %), Chandigarh (9.98 %), and Madhya Pradesh (9.98 %) are at the bottom states in female headship (Census of India, 2011). As per the recent National family 5 (2019-21), Kerala holds the second position in female headship (24 %) after Meghalaya (41%).

FHHs are, heterogeneous groups in respect of formation and configuration. They emerge as a result of social, cultural, demographic, political, and economic

differences among countries. They often differ through routes into the status (whether via non-marriage, separation, divorce, widowhood, and so on), or by rural or urban residence, race, composition, by stage in the life course (including age and relative dependency of offspring) and by access to resources from beyond the household unit (from absent spouses /fathers, kinship networks, state assistance and the like) (Safa, 2010; Varley 2002; Chant, 1997).

Among the Indian states, Kerala ranks top in female headship (23 percent) which is, more than double the national average (Census of India, 2011). In Kerala, female-headed households have appeared in two distinct groups i.e., Defacto and Dejure headship. The former consist of wives of migrants, soldiers, prisoners, and the wives of non-earning husbands (due to marginal contribution of men, unemployment, disability, and illness). In Defacto headship, male partners will be temporarily absent either due to migration or due to the inefficiency in providing income caused by illness, unemployment, or any other reason. The Dejure female-headed household considers widows, divorcees, or unmarried women, where we can see the permanent absence of the male partner. In most cases, they belong to the poorest strata of society and maintain their household alone without the help of their male partner (Moghadam, V., 2005).

4.3 Household composition and female headship in India

As per the National family health survey (NFHS) various rounds, the proportion of FHHs has been increasing in India. It is 9.2 percent, 10.3 percent, 14.4 percent, 15 percent for the subsequent data collected in NFHS I (1992-93), II (1998-99), and III (2005-06) IV (2015-2016) respectively. As per the NHHS 4, out of 11689 households interviewed, 57.9 percent are living in a nuclear family, whereas 42.1 in a non-nuclear family. The mean household size in India is 4.3.

Table 4.1 State wise proportion of female-headed households in India

	The proportion of female-headed				
	The proportion of female-headed households (in percent)				
	NFHS V (2019-21)	NFHS 1V (2015-2016)	NFHS III (2005-06)	NFHS II (1998-99)	NFHS I (1992-93)
Jammu and Kashmir	6	9	8.2	5.5	14.5
Himachal Pradesh	23	25	18.6	17.8	22.2
Punjab	16	12	10.9	9.4	7.7
Uttarakand (Uttaranchal)	21	19	15.7		
Haryana	15	9	11.1	8.0	10.1
Delhi	16		9.5	8.1	6.3
Rajasthan	13	12	8.7	6.5	4.4
Uttar Pradesh	17	14	13.9	9.8	6.8
Bihar	23	24	25.0	6.7	7.4
Sikkim	18	14	14.3	10.5	10.5
Arunachal Pradesh	15	11	11.2	7.7	7.3
Nagaland	15	16	14.9	12.0	7.5
Manipur	19	18	17.3	15.2	13.4
Mizoram	23	20	15.9	14.9	10.5
Tripura	17	14	13.4	11.0	14.2
Meghalaya	41	30	22.1	18.5	24.2
Assam	15	14	13.4	8.4	11.5
West Bengal	16	13	15.0	11.3	10.5
Jharkhand	18	13	11.2	-	
Orissa	17	14	13.0	9.0	7.2
Chhattisgarh	16	13	11.6	-	
Madhya Pradesh	11	9	7.5	7.0	5.0
Gujarat	13	13	8.4	9.9	10.1
Maharashtra	15	13	12.4	9.4	10.8
Andhra Pradesh	18	15	14.9	10.8	9.5
Karnataka	23	18	15.8	12.1	12.5
Goa	24	22	25.3	23.6	20.8
Kerala	24	20.4	24.6	22.1	19.9
Tamil Nadu	24	16	20.2	16.1	12.6
Total	N.A	15	14.4	10.3	9.2

Source: NFHS various rounds

Note: at the time of NFHS II and I, Jharkhand, Chhattisgarh, and Uttaranchal were a part of Bihar, Madhya Pradesh, and Uttar- Pradesh. In January 2007, Uttaranchal was carved out of UP, again changed its name to Uttarakhand

From Table 4.1 as per NFHS 4, the proportions of female-headed households are extremely high among the North and Eastern states, for e.g - Meghalaya (30 %), Himachal Pradesh (25 %), Mizoram (20 %), Bihar, (24 %), and the Western and southern state, for e.g Goa, (22 %), and Kerala (20.4). The additional states, where the proportions of FHHs are higher than the national average (15) are Uttarakhand (19 %), Manipur (18 %), Karnataka, (18 %), Tamil Nadu (16 %). Whereas, the state like Jam mu-Kashmir (9 %), Haryana (9 %), and Madhya Pradesh (9 %), their proportions are even negligible and are below the national average (NFHS 2015-16).

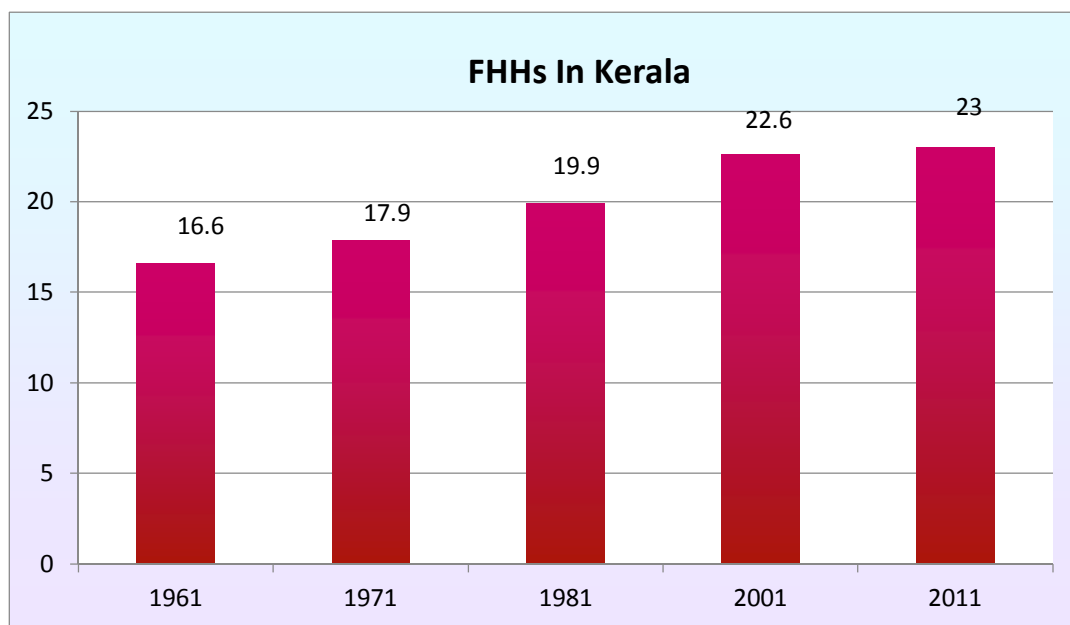
When it comes to the NFHS 5, Meghalaya holds at the top among female headship (41%), followed by the southern state like Kerala (24 %), Tamilnadu (24 %), and Goa (24 %). If we make a comparison between NFHS 4 and NFHS 5, it is evident that female headship is increasing in all most all the states except Himachal Pradesh, Jammu & Kashmir, Bihar, and Nagaland (NFHS-5).

4.4 Household composition and female headship in Kerala

In Kerala's total population (334 06061), the women population consists of 52.02 percent (Census of India, 2011). Among these, 47 percent of them reside in urban areas. Regarding their type of family, 55.5 percent of them live in nuclear families and the remaining 44.5 were in non-nuclear. The household size in Kerala consists of an average of four members. A general increase in the female headship in Kerala is attributed to the socio- economic and demographic factors like (1) higher female life expectancy at birth (77.9 years for women and 72.2 years for men), which is very higher than that of India's life expectancy at birth (67.4 and 70.2 respectively), (2) greater age differential at marriage (27.3 years for men, 20 for women as per sample registration base line survey-2014), (3) high economic independence and female literacy [in rural (90.74 %) in urban (93.33 %)] (4) long working hours and tendency to leave home owing to work, (5) low remarriage rates among widows (6) increased divorce rate due to problem-related with dowry and domestic violence against women (Gender statistics, 2017-18), (7) the high sex ratio, (1084 female, 940 male) (8) the incidence of higher suicide among men both

at state and national level, which is nearly two times higher than among females, (9) alcohol related death and accident of men.

Figure 4.1 *Increasing trend of Female-headed households in Kerala*



Source: Census of India -Kerala series, 1961, 1971, 1981, 2001, 2011

Kerala illustrates an increasing trend in female headship. From the years 1961, 1971, 1981, 2001, and 2011, their proportions were 16.6 percent, 17.9 percent 19.9 percent, 22.6 percent, and 23 percent respectively.

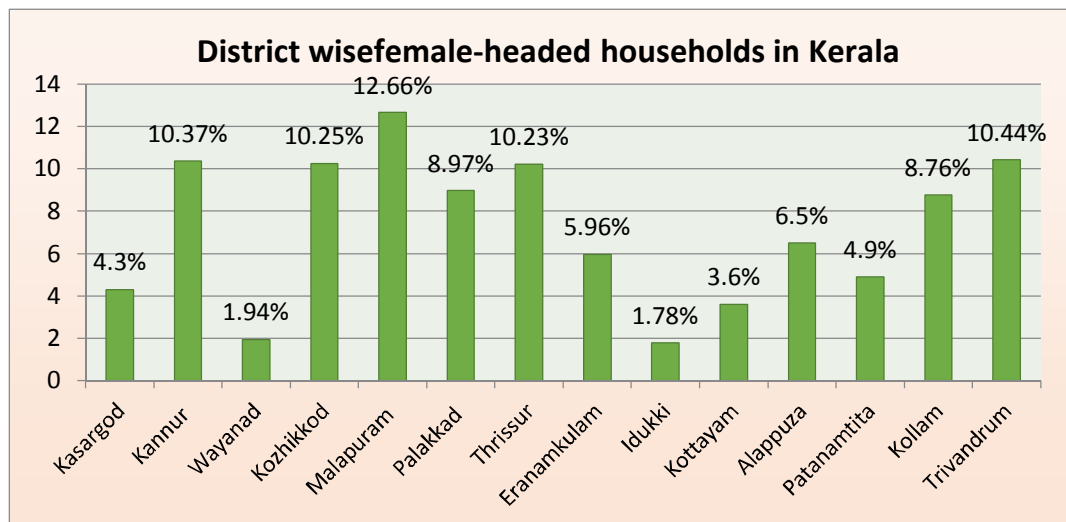
Table 4.2 *The proportion of female-headed households in India and Kerala*

NFHS Various round	India	Kerala
NFHS-1(1992-1993)	9.2	19.9
NFHS2(1998-1999)	10.3	22.1
NFHS3(2005-2006)	14.4	24.6
NFHS4(2015-2016)	15	20.4
NFHS5(2019-2021)	17.5	24

Source: National family health surveys various rounds.

As per the National Family Health Survey, the proportion of female headship is increasing in India. It is 9.2 percent, 10.3 percent, 14.4 percent, 15 percent for the subsequent data collected in NFHS 1 (1992-93), II (1998-99) III (2005-06), and IV (2015-16) respectively. Whereas, in Kerala, it is 19.9 percent, 22.1 percent, 24.6 percent, 20.4 percent, and 24 percent for the subsequent data collected in DFHS-1, DFHS-2, DFHS-3, DFHS-4, DFHS-5 respectively. From these, it is evident that the proportion of FHHs both in India and Kerala shows an increasing trend except the year 2015-2016 (NFHS-4;20.4 %), which shows a 4.2 percent decrease from the previous survey of 2005-2006 (NFHS-3; 24.6 %). During 2015-16 there were a large number of return migrants from the gulf region due to changes in gulf policies and a fall in the oil price which often caused a decrease in defacto FHHs in Kerala. Moreover, the Kerala Migration Survey also reported that there is a continuous decrease in emigration since 2008 which also led to the decline of female-headed households in 2015 -2016.

Figure 4.2 District wise proportion of female-headed households in Kerala



Source: census 2011

From Figure 4.2, it is clear that Malappuram leads the top in female headship (12.66) followed by Thiruvananthapuram (10.44), Kannur (10.37), and Kozhikode (10.25). Migration is the main cause of female headship in the Malappuram district. Similar situations were found in Kannur, Thiruvandapuram, and Kozhikode.

4.5 Socio-economic characteristics of FHHs in Kerala

As per the National Family Health Survey, 2015-2016 most of the female-headed households belong to the rich category. According to this report, widowhood is the most common root of female headship in Kerala, whereas, divorce or separation places a negligible proportion in their creation (NFHS-4, 2015-2016). Table 4.3 provides the socio-economic characteristics of a household headed by women in Kerala.

Table 4.3 *Percentage Distribution of Socio-economic characteristics of FHHs in Kerala*

Household characteristics		Percentage
Place of residence	Rural	61.6
	Urban	38.4
Education of the respondent	Illiterate	13.9
	Primary and secondary	79.1
	Higher education	6.2
Religion	Hindu	60.3
	Muslim	25.4
	Cristian	14.3
Marital status	Never married	2.4
	Married	28.6
	Widow	62.7
	Divorced	6.4
Age	20-40	9
	40-60	43.5
	60 above	48
Family type	Nuclear	39
	Nom nuclear	61
Wealth index	Rich	74.6
	Poor	25
Type of house	Kutchha	0.6
	Pucca	99.3

Source: Data extracted from NFHS 4 (2015-2016)

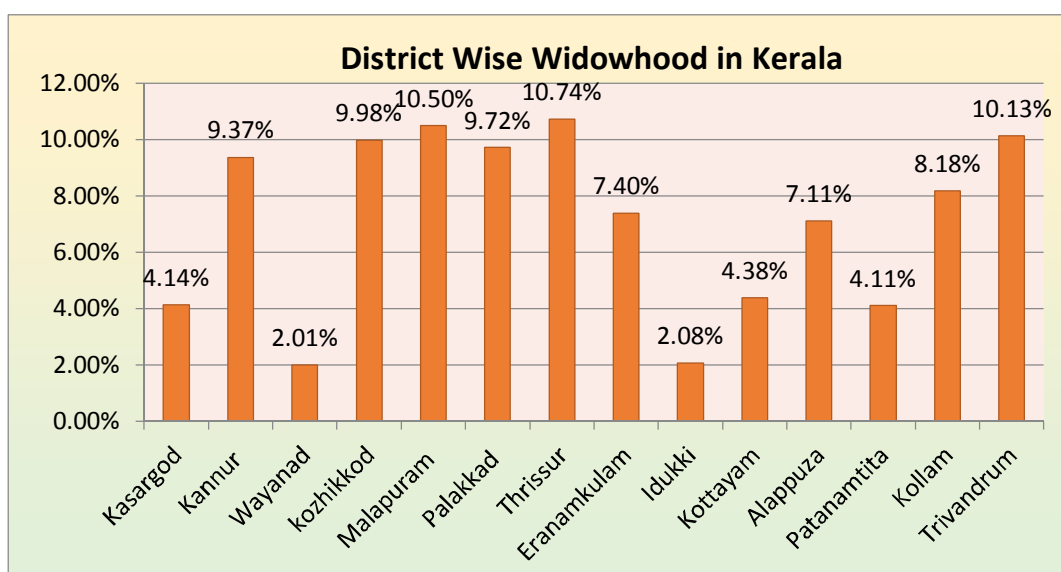
Table 4.3 discloses that most of the FHHs reside in a rural areas (61.6 %) and belong to the Hindu religion (60.3%). The majority of them resides in non-nuclear family (61 %). 85.4 percent of them don't have the access to agricultural land, and 69.9 percent don't have even livestock. NFHS depicts that, 24.8 percent of FHHs lack adult male members to support their families. When it comes to the education of these households, 13.9 percent don't have any education at all. Most of them belong to the category of primary and secondary education (79.1 %). Only 6.2 percent have higher education. About 52 percent of them do not cover any health insurance schemes. Their economic status shows that 75 percent of them belong to the rich category. However, their access to physical assets (consumer durable) such as bicycles (77 %), motorcycles (57.9), internet (91.3), computers (84.1), sewing machines, washing machines, tractors, cars, ownership of land (85.4) and livestock (69.9) are found as low. Regarding their type of house, 99.3 percent of people are living in pucca houses. In sum, 'female headship and poverty evidence' from the National Family Health Survey reveals that based on housing conditions and the wealth indices, they are less poorer than male-headed households.

4.6 Female headship in Kerala: leading issues

Female headship in Kerala can be classified under two relevant themes (4.6.1) Marital disturbance such as widowhood, separation, and migration (4.6.2) Male migration and female headship.

4.6.1 Marital disturbance (Widowhood, Divorce, and separation)

In Kerala, the prevalence of female headship is mostly associated with marital disturbances such as widowhood, divorce, and separation. As per Census 2011, the total number of widowhood in Kerala was 1228006. Among widows, Thrissur district ranks top (10.74 %) followed by Trivandrum (10.13) and Malappuram (10.5). The following figure shows the district-wise widowhood in Kerala.

Figure 4.3 District wise proportion of widowhood in Kerala

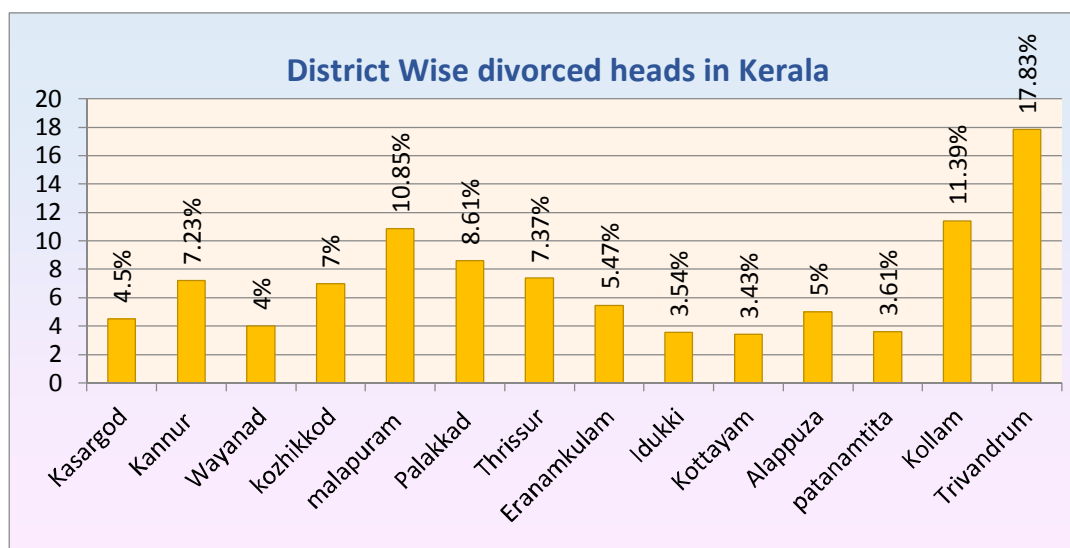
Source: Census 2011

Figure 4.3 illustrates the district-wise widowhood as per Census 2011. Among the district, Thrissur ranks top (10.74 %) followed by Trivandrum (10.13%) and Malappuram (10.5%). This rapid increase of widowhood in Kerala is associated with a high life expectancy of females compared to males, increased death of a spouse due to chronic diseases, suicide, accident, etc.

Apart from widowhood, several women in Kerala are divorced, deserted, and separated. It has different consequences on women and their children in many aspects. As per the Census 2011, the total number of divorced heads is 81451, and have asserted that economic crisis is the major cause of marital breakup in most families. Though the absolute number of divorces has gone up to 13 in 1000, over the last decade, India remains at the top of the list of countries with the lowest divorce rate. Among the Indian states, Uttar Pradesh has the highest tendency of divorce rate (61970 divorce case-pending in its family court) followed by Kerala. While it is interesting to note that UP is the most popular state, whose population is almost seven times that of Kerala (Report from the Ministry of Law, 2019). Among the districts, Trivandrum ranks top in divorce cases followed by Kollam, Trissur,

Ernakulam, Kozhikode, and Wayanad. In Trivandrum, 3328 cases were settled and 18,745 divorces are still pending (Hindu report, 2017).

Figure 4.4 District wise distribution of divorced heads in Kerala



Source: Census 2011

Figure 4.4 illustrates the district-wise divorced heads as per Census 2011. Among the districts, Trivandrum ranks top in the divorced head (17.83 %) followed by Kollam (11.39%) and Malappuram (10.85%).

4.6.2 Male migration and female headship

In developing countries, male out-migration is the way of life, especially for rural households for decades. Most of the families in developing countries believe that working abroad is one of the best solutions to eradicate poverty (Desai & Banerji, 2008), common livelihood, and diversification strategy for the poor (Ellis, 1998). In most cases, migrants leave their country of origin with the prime aim of supporting their families. However, the increasing trend of migration has brought about both structural and behavioral changes in the demography of Kerala, one of the crucial changes today is the growth of left-behind women and children in the state. The impact of migration on left-behind women and the demography of Kerala can be classified under the following headlines.

a) An Impact of migration on demography

The demographic impact of migration can be classified under reduction in the growth rate of population, a unique sex ratio favoring males, reduction in the working-age of population, increase in the proportion of elderly, and reduction in the labour market participation of women, etc. (Zachariah et al., 2000). Moreover, studies also report that the impact of migration has different consequences on family structure and its functioning. The prevalence of a large number of nuclear families is another outcome of migration, where most of the households were joint before migration. As a result, their decision-making and autonomy in the household and their financial affairs also increased which were under the control of men before migration.

b) Impact on the growth of left-behind women and children

Migration has brought about a significant number of left-behind women and children in the state. Men's prolonged absence in both the rural and urban context of Kerala has many implications on family and community life (Kumaril, 2018). When males migrate for work, the economic and socio-cultural context of the family may change. ie. the household pattern, the composition of daily activities income, and even authority and power in the household may have changed. In other words, it often leads to changes in gender roles in their family. As a result, women have to take up some of the economic and social responsibilities that were already done by men also creating both positive and negative impacts upon them.

c) Impact on household responsibilities

With the permanent absence of men in the family, the life of women becomes difficult. In a nuclear family, women take the role of the de facto head; managing all the household responsibilities, and may feel more challenged to make their own decision about routine and important matters in household affairs (Singh & Kumari, 2018; Lini, GR, 2013; Gulathi, 1983). Due to defacto headship their workload increases, apart from doing regular household chores, she has to take the role of a temporary household head and become more responsible in keeping land, taking care of their children, parents, and other dependents. Monitoring the education of

their children and financial management are the other responsibilities assigned to them. All these roles and burdens may often create many health issues and tension concerned with finances, parenting, and children. According to Kaur, 2017, those who reside in nuclear families will be having more household responsibilities and burdens than those who stayed with in-laws, who can share their work with other family members.

On the other hand, male out-migration also has a positive impact on women and children in the state (Sajitha and Harikumar 2019; Maharajan et al., 2012; Gulathi, 1983). It also helps women to develop their managerial capacity as well as their leading role in household affairs. As a result, they are also empowered to act as an agency role to perform greater responsibilities, although this may differ based on the socio-cultural context of women (Rashid, 2013). Moreover, they are also benefiting from regularly sending remittances and having high social and economic status which may prevent them from poverty.

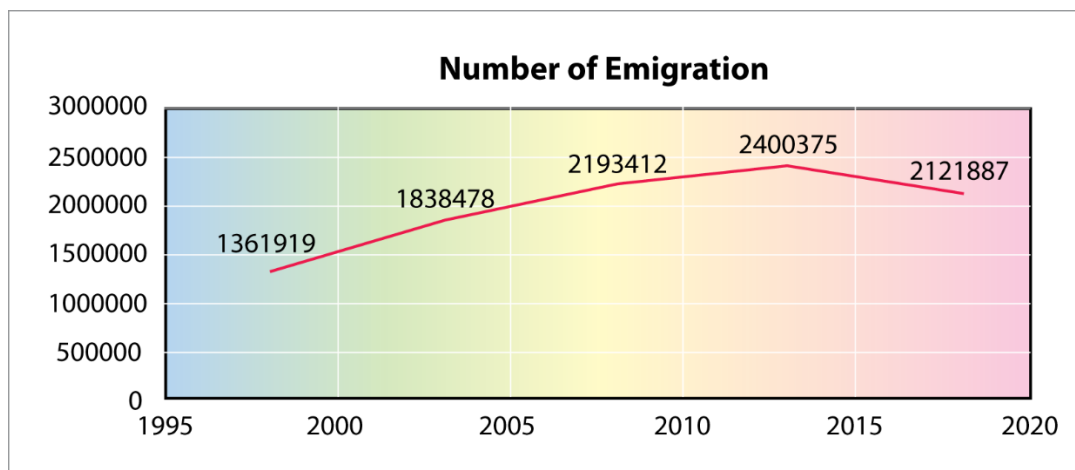
d) Impact of migration on consumption, saving, and investment

The impact of migration on consumption, saving, and investment is mostly determined by the amount of remittance received by the migrant and its utilization. Studies reported that migration have improved the health, nutrition, increased purchasing power, diversified income, and consumption pattern of left-behind women and their children (Khuseynova, 2013; Kaur, 2017). The emigrant's households spend a major share of their income on consumption, education, health, and other entertainment. Likewise, the use of consumer durables such as television, refrigerator, laptop, internet, and vehicles were found to be higher in migrant's households as compared to non-emigrants. The flow of remittance also helps them in gaining technological advancement, and material goods thereby achieving high socioeconomic status and well-being. With regards to saving and investment, these households spend a major part of their income on luxurious consumption and there can be seen a significant increase in assets like motor vehicles, gold ornaments, land, and another apartment rather than their permanent building (Nair, 1998; Pushpangadan, 2003).

4.6.3 Trend in Emigration

The number of international migrants have increased over the past five decades. Our country has the largest number of migrants living abroad (17.5 million), followed by Mexico and China (11.8 million and 10.7 million respectively). As per the Kerala migration survey, (2018) there are 2.1 million emigrants from Kerala across the world. The estimated total remittance to Kerala is 85,092 crore as per Kerala Migration Survey (KMS, 2018). This is because Keralites in the gulf have climbed the social ladder and earned higher wages allowing them to remit more. Another significant aspect of migration is the creation of left-behind women and children in the state (Metha, 1990; Elson, 1992; Rajan). Due to this, about a quarter of the households became Defacto-headed and were left to care for their children as well as their households. According to Zachariah, & Rajan, (2007) male out-migration has resulted in a stable economic position for women, however, it often leads to increased domestic and child-caring responsibilities.

Figure 4.5 *Trend in Emigration, 1998-2018*



Source: KMS various rounds

Figure 4.5 shows the number of emigrants from 1998 to 2018 in five-year intervals. KMS 2018 has confirmed the trend that, emigration from Kerala is falling, and return migration is on the rise. During 2015-2018, the number of NRKs decreased by 2.78 lakh.

4.6.4 Emigrants and inter-survey Change

There are an estimated 2.12 million migrants from Kerala across the world, which is 149000 less than the 2016 KMS estimate and 278000 less than the 2013 KMS estimate. Overall the data shows a continuously decreasing rate of growth of emigration since 2008. However, it should also be noted that there was a positive growth in some years, particularly 2011 and 2013, 87000 more people seem to have emigrated in the 2008-11 period and 1.2 lakh more in 2011-13.

Table 4.4 *Emigrants and inter-survey Change*

Year	EMI	Inter survey difference	Increase /Decrease
1998	1361919	-	
2003	1838478	476559	25.9
2008	2193412	354934	16.2
2011	2280543	87131	3.8
2013	2400375	119832	5.0
2016	2271725	-128650	-5.7
2018	2121887	-149838	-7.1

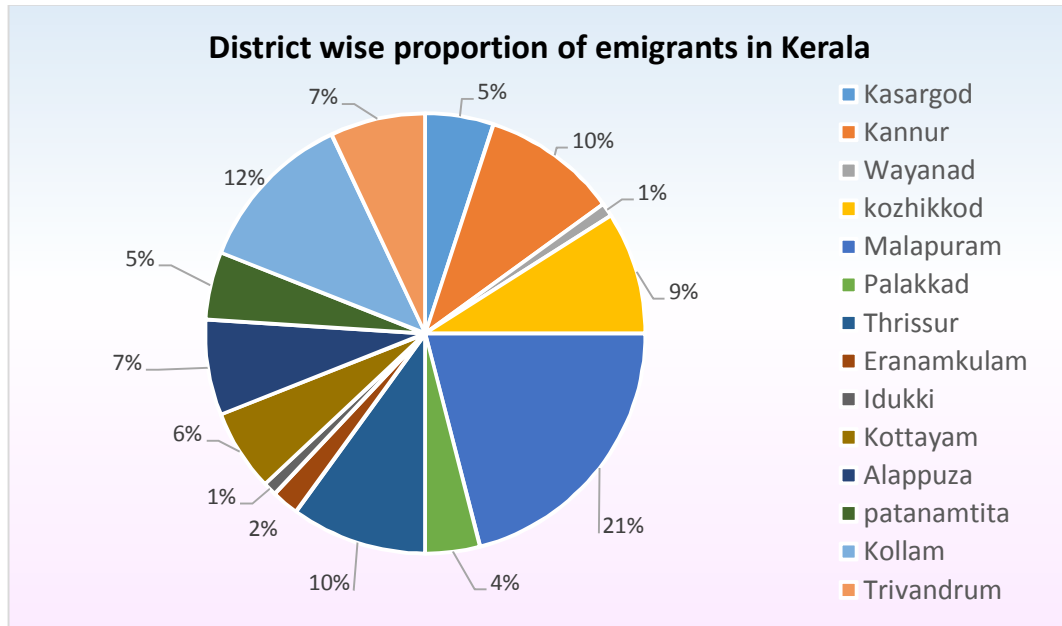
Source: KMS various rounds

Table 4.4 shows the overall migration has declined and it can be seen from the district-wise figure also. Malappuram, Kannur, Trivandrum, Kozhikode, Kollam, and Thrissur are leading in migration, whereas Idukki, Wayanad, and Palakkad are the least migrant-sending district.

4.6.5 The district-wise proportion of emigrants from Kerala

Figure 4.6 illustrates the district-wise proportion of emigrants from Kerala. From the figure, Malappuram District with 21 percent, ranks top in migration, followed by Kollam (12 %), Thrissur, and Kannur (10 %).

Figure 4.6 District-wise proportion of emigrants from Kerala



Sources: KMS, 2018

From Figure 4.6, it is clear that Malappuram (21 %), Kollam (12 %), and Kannur (10 %) are the most migrant-sending districts in Kerala followed by Kozhikkod, Trivandrum, and Thrissur. Whereas, Idukki, Wayanad, and Ernakulam are the least migrant-sending districts.

4.6.6 Remittance received from migration

Although workers from all parts of India migrate for employment, Kerala has certain comparative advantages of migration such as strong educational tradition and special skills. Moreover, they are adaptable to technically sophisticated and changing work environments and have shown themselves capable of mastering new technologies. In countries of the Gulf and elsewhere the contributions of migrant workers are distinct and identifiable.

Table 4.5 Growth of remittance (1998-2018)

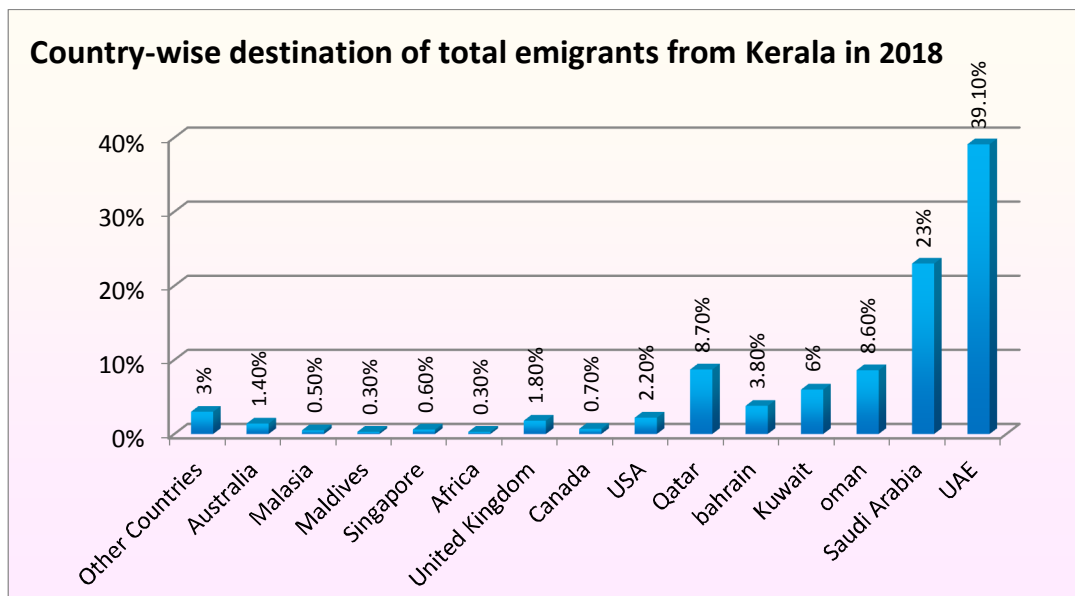
Year	Remittances(in Crores)	Percent Increase	Remittance per Household (Rs.)
1998	13652	-	21,469
2003	18465	35.3	24,444
2008	43288	134.4	57,215
2011	49695	14.8	63,315
2013	71142	43.2	86,843
2018	85092	19.6	96,185

Source: KMS various rounds

Table 4.5 reveals that remittances are increasing over the year (1998 to 2018). In 1998, it was ₹ 21469. It again rose to ₹ 96185 during the year 2018.

4.6.7 Country-wise destination of emigrants from Kerala 2018

The countries in the Gulf region account for 89.2 percent of the Kerala emigrant population. Figure 4.7 shows the country-wise destination of total emigrants from Kerala.

Figure 4.7 Country-wise destination of total emigrants from Kerala in 2018

Source: KMS,2018

The Country-wise destination of emigrants from Kerala shows that 39.1 percent are in the United Arab Emirates (UAE), followed by Saudi Arabia (23 percent).

4.7 Conclusion and scope for the primary survey

Female heads are appearing to be on the rise both in India and in a state like Kerala (Census, 2011). This chapter provides us with an overview of the proportion of female headship across India, especially in the context of Kerala. Generally, it is reported that marital disturbances (death, divorce, separation) and migration are the major cause of the universal increase in FHHs. Marital disturbances are often linked with the factors such as the death of the spouse due to chronic diseases, domestic violence, alcoholic behavior, problems related to dowry, extramarital affairs of their spouse, etc. Other significant factors associated with female headship are changes in roles and expectations within marriage, increased female participation in the labour force, greater mobility and modernization, etc. The increasing number of women working outside also leads to complaints about their insufficient attention to domestic tasks and child discipline, as well as to accusations about women's inappropriate expectations in life.

Among the prevalence of FHHs in Kerala, Thrissur district ranks top in widowhood, whereas in male out-migration Malappuram leads the other states. In the case of divorce, Trivandrum holds the highest position followed by Kollam and Malappuram. The study also observe that migrant wives are better in economic status than widowed, divorced, and never married heads because of the monthly remittance received from their absent spouse.

Many studies explained the vulnerability of female headship across the world. As per National Family Health Survey 4, most of them have appeared in the high-income category. However, other studies reported that they are vulnerable as compared to their male-headed counterparts. Thus, the relationship between female headship and vulnerability is quite ambiguous, especially in the context of Kerala. Moreover, both NFHS and Census provide data on their proportion only. So secondary data are found to be insufficient to explain their vulnerabilities and livelihood strategies. At this juncture, a grassroots analysis is needed through a primary survey. Here comes the importance of the primary survey.

CHAPTER 5

SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS HEADED BY WOMEN IN KERALA

CONTENTS

5.1	Introduction	88
5.2	General profile of Kerala	88
5.3	Causes for the Incidence of Female-Headed Households in the study area.....	91
5.4	Socio-economic and demographic characteristics of the FHHs.....	97
5.5	Distribution of the respondents based on education and marital status.....	112
5.6	Distribution of the respondents based on age and marital status.....	113
5.7	Distribution of the respondents based on family income and marital status	114
5.8	Distribution of the respondents based on earning members and marital status	115
5.9	Distribution of the respondents based on occupation and marital status.....	116
5.10	Distribution of the respondent based on household headship and decision making.....	117
5.11	Conclusion.....	124

5.1 Introduction

The group of female heads selected for this study includes widowed, divorced/ separated, single, deserted women due to male out-migration, and wives of unemployed, or disabled. Women living in male-headed households were also been selected for this study for comparative purposes. In household-based sample surveys and censuses, headship has been identified by the respondents themselves as head of the respective households. This person may be appointed as head based on either age (older), sex, economic status (main provider), or some other reasons. Likewise, the present study defined female headship based on the respondent's perspective. This means it is up to the respondent to define who is head (Institute for Resource Development/Macro International Inc., 1990). Here, the respondents reveal that they are the head of their family considered as a sample for the survey.

This chapter consists of three sections in which an attempt is made to assess the (5.2) general profile of the study area (5.3) case study on causes of female headship (5.4) socio-economic and demographic characteristics of the household headed by women as compared with the women from the male-head counterparts.

5.2 General profile of Kerala

The state of Kerala is situated at the Southern end of India, with an area of 38,863 sq. Km, with a population of 3.33 Crores. Kerala's achievements have largely transcended caste, class, rural, urban, and gender limitations. It also has brought most of its people up to the levels of the first world in the case of literacy (94 %), average life expectancy (74 years), and infant mortality. Several studies have reported that the state of Kerala is famous for male-out migration. About three million Kerala emigrants work mainly in Persian Gulf countries, Canada, US, Europe & Australia. Thus, we can say that the remittance of NRKs (Non-Resident Keralites) is the biggest contributor to the Kerala economy. The average remittance is ₹ 200 crores per day which would work out to 62,400 crores every year.

Table 5.1 *Brief demographic profile of Kerala*

Actual population	33,387,677(3.33 Crore)
Male	16,021,290
Female	17,366,387
Population growth	4.86%
Sex ratio	1084/1000
Density /Km ²	859
Area/km ²	38863
Literacy	93.91%
Male literacy	96.02%
Female literacy	91.98%
Life expectancy at birth	74.6 years

Source: Census, 2011

Table 5.1 provides the demographic profile of Kerala, consisting of the actual population, growth of population, sex ratio, density, literacy, and life expectancy at birth.

One of the significant issues faced by Kerala is the household headed by women and the left-behind children in the state. As per the census 2011, Kerala ranks top in female headship (23 %) which has been associated with several factors such as changes in lifestyle, higher female life expectancy, increased male migration, etc. Besides, the factors like increased economic independence among women, long working hours, and the tendency to leave home owing to work also create a significant number of female-headed households in the state.

From the literature, it is evident that widowhood is playing a significant role in the creation of female headship in Kerala followed by male migration. As per the Census, 2011, widowhood is highest in the Thrissur district. At the same time Malappuram leading ahead in male out-migration. In this regard, Malappuram and Thrissur districts were selected for the study

5.2.1 Brief profile of the study area: Malappuram and Thrissur district

Malappuram is the most populated district of the state with a population of 4112920 of which 1960328 are males and 2152592 are females (Census, 2011). It

also holds the top in average household size (5.2 people) with a sex ratio of 1098. Malappuram has made numerous contributions to the cultural heritage of Kerala. This district records the highest percentage of non-workers in the state (74.14), where, the male and female work participation consists of 45.8 percent and 7.6 percent respectively. This district ranks third in the area (3554 sq. km) and is now composed of two revenue divisions, 12 Municipalities, and 94 Panchayats (Govt of Kerala Department of Panchayat, 2021).

Thrissur district is known as the cultural capital of Kerala, and it has played a significant role in the political history of South India from ancient times. The district ranks fourth position in the population (3121200) of which 1480763 are males and 1640437 are females. This district also holds the fourth position in sex ratio (1108) and the second position in the percentage of male workers (84.8 %) with male and female work participation at 53.3 percent and 18.7 percent respectively. Thrissur district ranks fifth in the area and is comprised of two revenue divisions, seven Taluks, seven municipalities, and 86 Grama Panchayaths (Govt of Kerala Department of Panchayat, 2021).

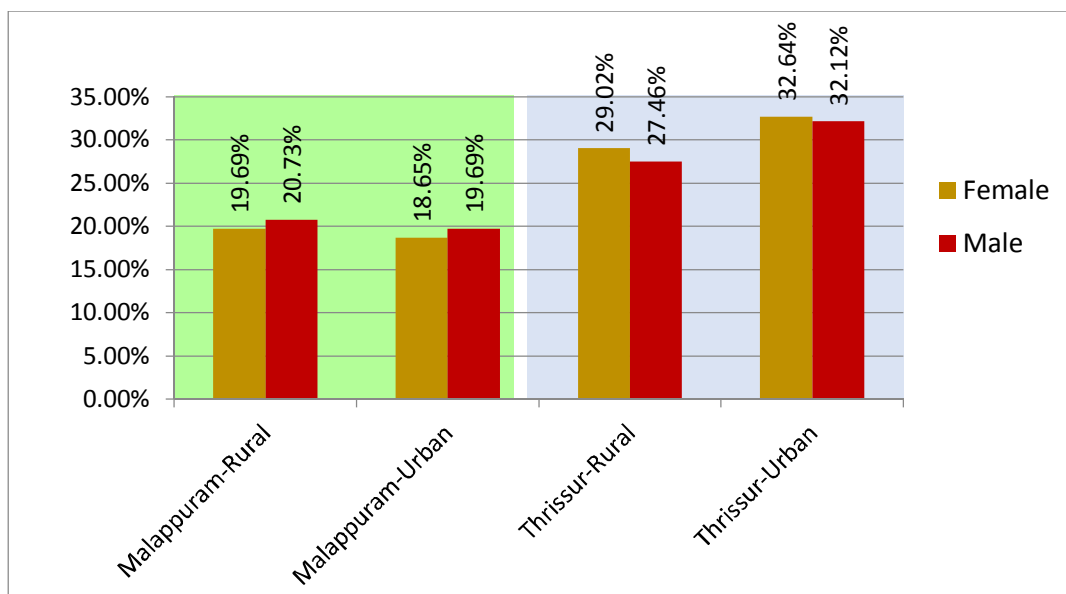
Table 5.2 *Region-wise distributions of the respondents*

District	Region	Female-headed households	Male headed households	Total
Malappuram	Pulikkal Panjayath (Rural)	38(19.69)	40(20.73)	78
	Kondotty Municipality (Urban)	36(18.65)	38(19.69)	74
Thrissur	Mattathur Panjayath (Rural)	56(29.02)	53(27.46)	109
	Irinjalakkuda municipality (Urban)	63(32.64)	62(32.12)	125

Source: Primary survey, 2021

Table 5.2 shows a cross-regional comparison of the proportion of female and male-headed households among the representative sample of 386 households from both Malappuram and Thrissur districts. From each district, one Gramapanchayath and one Municipality were selected for the study.

Figure 5.1 Region wise distribution of the sampled households



Source: Primary survey, 2021

The proportion of female and male-headed households from Malappuram consist of 19.69 percent, 20.73 percent from rural, and 18.65 percent, 19.69 percent from urban respectively. Likewise, in Thrissur, the proportion is 29.02 percent, 27.46 percent from rural and 32.64 percent, 32.12 percent from urban respectively.

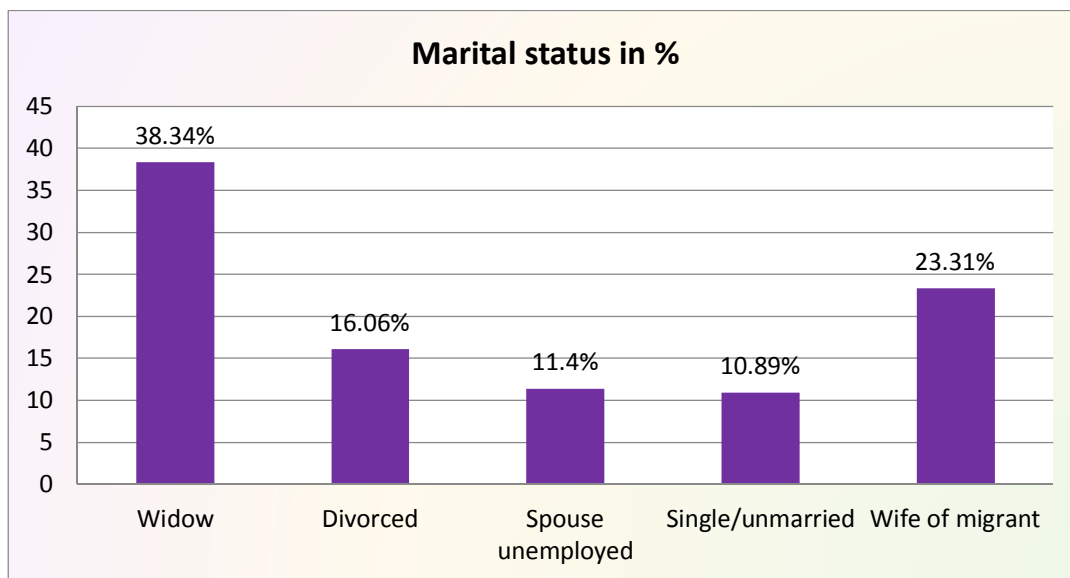
5.3 Causes for the Incidence of Female-Headed Households in the study area

The rapid growth of FHHs in Kerala has been attributed to socio-economic and demographic factors like (1) higher female life expectancy at birth, (2) greater age differential at marriage (3) high economic independence and female literacy (4) long working hours, and tendency to leave home owing to work, (5) low remarriage rates among widows (6) increased divorce rate due to problem-related with dowry and domestic violence against women (Gender statistics, 2017-18), (7) the high sex ratio, (1084 female, 940 male) (8) the incidence of higher suicide among men (9) and alcohol-related death and accident of men, etc.

The factors described above can be classified under widowhood, migration, divorce/separation, and never married. Moreover, women whose husband is

unemployed, or disabled also come under this category. The following table clearly shows the existence of this phenomenon.

Figure 5.2 *Distribution of FHHs with marital status*



Source: Primary survey, 2021

From figure 5.2 it is evident that widowhood is the most common root of female headship (38.34 %) followed by deserted women due to male out-migration (23.31 %). Whereas, divorced, spouse unemployed and single head constitute a very smaller proportion such as 16.06 percent, 11.4 percent, 10.89 percent respectively.

Studies reveal that female headship are the outcomes of various social, economic, demographic, and cultural factors. Among these, socio-economic factors include widowhood and migration. Demographic and cultural factors are the product of several factors such as breaking up of the joint family system, ethnicity, conflict-related death, unemployment, the shift in values /attitudes about marriage and childbearing (Schatz et al., 2011; Royan, 2014 in South Africa). Moreover, war, displacement, the feminized sex ratio of the population by Civil conflict, the high life expectancy of female, the age gap between brides and groom also playing a significant role in it (Ruwanpura & Humphries, 2003 evidence from Sri Lanka).

5.3.1 Widowhood

According to CSA (2010), widowed/widower is defined as those who have not been married after the death of their spouse. The causes for widowhood are very momentous in the study area as it occurs unexpectedly. Widowhood in the study area is mainly associated with diseases, conflict, and accidents of their partner (i.e. flood, fire, car, murder, suicide). Among these, health-related problems or diseases are the major cause of the death of their husband which accounted for about 88 percent in the study area of both Malappuram and Thrissur districts. Apart from that, 8.1 percent of women reported that their headship is due to an accident caused by the death of their spouse.

The above result is confirmed through the life history of one of the informants. She explains how disease claims the life of her husband as follows:

Case 1 widowhood

I am 35 years old, and a resident of the Thrissur district. I stayed in the marriage for 14 years. Now I am a widow. I have three children. My husband died three years back. He was a cancer patient. At the early stages, we did not know about his disease. "For three years, my husband had been bedridden. We spent a lot of money on his health care. During that time I had no job to survive. It was very difficult for me to find the medical expense for my husband. I never thought he would die very soon because of this disease. "I had met with a lot of difficulties at the death of my husband. Following my husband's death, I returned to my parent's home. Me and children had attempted suicide several times after his death because of financial and emotional issues.

5.3.2 Divorce/separation

Another reason for the female headship in Kerala has been attributed to divorce/separation. The factors such as problems related to dowry, domestic violence, and alcoholic behavior of the spouse, also contributed a lot to the disagreement between partners. Likewise, economic problems also affect the relationship of partners

negatively. Many studies reveal that impoverishment or economic problems break the bond of marriage which often causes divorce/separation among partners.

In most households, the male is the only provider of income. As a result, he handles his income for various purposes. Some lose the money for household matters while others spend it on drinking. This is one of the reasons for the disintegration of families. In the study area, out of a total of 193 FHHs, 16.06 percent of them were separated. Among these, 51.6 percent reported that adjustment problems are the major cause of their divorce. 35.5 percent reported that their spouse's remarriage is the prime cause of their separation. The remaining 12.9 percent of the respondents reveal that their partner left them due to financial issues and liabilities in their family.

The story of one of the informants from the Malappuram district supports the above idea as follows:

Case 2 Divorced

My age is 34 years old, I am a divorcee and a resident of the Malappuram district. I married my husband at the age of 18. I have 2 children, and both of them are female. My elder child is 13 years old and the youngest one is only 4 years. The reason for my divorce is the extramarital affair of my husband with my sister-in-law. At the earlier stage, I did not know about his affair. When I knew about this relationship, I left his home, with my younger child and returned to my parent's home. He got married to my sister in law within a couple of months leaving her child with my parents.

After one year my mother died due to a brain tumor. Hence I had to take care of their children along with my child. My father got married again after my mother's death., so I could not live there anymore. I again left home and living in a rented home now. My elder child is staying with my husband since my departure. My husband is a political leader, by his influence, he never allows me even to see my elder child. I have a small job now.No one is here to support me. I feel isolated from my community, family, and myself. Day by day I am getting worse off and now I am taking medicine for depression.

5.3.3 Desertion

Deserted couples were considered to be married unless they have dissolved their marriage agreement (CSA 2010). Various factors are contributed to the formation of deserted women in the study area, such as war participation, resettlement, dissatisfaction, and migration. In Kerala, a significant number of women and children are left behind/deserted due to male out-migration. They are known as defacto-headed households. The defacto heads are economically better off as compared to the widowed/divorced and single heads because of the high social status and monthly remittance from their spouse. Whereas, the widowed/divorced and single head always lack the care and support from their spouse. In the study area, 23.31 percent of women were separated due to male out-migration. The other factors contributing to desertion such as spouse war participation and resettlement are very negligible in the study area.

The story of one of the informants from the Thrissur district supports the above idea as follows:

Case 3 Male out-migration

I am 55 years old. Presently resides in Thrissur district. My husband is working in Dubai for 30 years. We have three children. We receive high remittances from him every month, hence we are economically better off. He could not arrive here even at the time of our children's marriage. Due to the temporary absence of my spouse, I became a functional head by doing all the responsibilities such as household management, management of financial affairs, child caring, and children's education. Even though my husband is away from here, the major decision both financial and household affairs are taken by my spouse alone. I have very little control over all these aspects. Due to his absence, my freedom, and autonomy have increased a lot. However, I am sure it will lose when he reaches here.

5.3.4 Wife of an unemployed and disabled spouse

The wife of an unemployed or disabled spouse also comes under defacto headship. In the case of the wife of an unemployed and disabled spouse, functional responsibility fully falls upon the woman. In such households, their roles and responsibility will be higher as they have to meet the caring and financial responsibility of their family members including spouses. There is a tremendous growth of wives of unemployed and disabled spouses in the study area of both Malappuram and Thrissur districts. Even though they come under defacto headship, they are not economically better off than the wives of migrants. About 11.39 percent of women in the study area are the wife of diseased or unemployed husbands.

Case 4 *Wife of an unemployed and disabled spouse*

I am 36 years old and a mother of 8 years old male child. My husband is a heart patient. Last year he had one surgery. As my family was not able to meet his medical expenses, his friends and community members gathered money for that. We also had the extreme support of our relatives and neighbors. After the surgery, he is not able to do any work and is still bedridden. He was the only earning member of our family. All these years I was caring for my husband as he could not even stand up without support. Thus I could not go for any job by leaving him alone in this situation. At present, I am looking for a job at least to meet his medical expenses.

5.3.5 Never married

Never-married refers to all persons who are single and had not been married earlier (CSA, 2010). About 10.88 percent of women in the study area are never married and the majority of them live with their siblings, relatives, or with their parents. The unmarried women who stayed alone are found rare in the study area except for one case in Thrissur. A woman who lives as unmarried throughout their life is due to some reason. One of the issues is related to health. It may be mainly associated with some inherited diseases such as elephantiasis, epilepsy, skin disease, leprosy, etc. Moreover gynecological and biological issues also added to their single status. In short, health-related problems along with sociocultural

influences have contributed a lot to the creation of never-married women in the study area. On the other hand financial crisis also leads to the single status of women in some households. These two cases are explained below.

Case 5 Never Married due to health issue

One of the informants explained: *I am 36 years and a resident of Malappuram district. I am a victim of epilepsy. In effect, no one asked me for marriage until this age. So, I am forced to live without a partner. The chance of getting a husband is rare since my health status getting worse day by day. I need lots of money for my medical expenses. So, I am working as a helper in a school now. At present, I am staying with my brother's family. I have several emotional issues in this regard. Still, I am waiting for a good marriage, hence there is no scope.*

Case 6 Never married due to family circumstances

An informant from the Thrissur district: *I am 56 years old. I am forced to live without a partner because of the financial crisis of my family. I have two siblings. Both of them are disabled due to some neurological issues. My parents died ten years ago. Thus the caring responsibility of my siblings accidentally fell upon me. In effect, those who came in search of me for marriage were not ready to take up the responsibility of my family. Now my life is to protect my siblings.*

5.4 Socio-economic and demographic characteristics of the FHHs.

A family is a basic unit of society. Any changes in its socio-economic and demographic characteristics may have a large-scale effect on the well-being of the family. This section tries to analyze the socio-economic and demographic characteristics of a household headed by women and their relative percentage distribution based on the variables such as age, social status, education, income, occupation, and so on. A significant proportion of women from male-headed households were also selected for comparative purposes.

Table 5.3 Demographic Features of FHHs & MHHs

Description	FHHs	MHHs	Chi-square	Total
Sample size	193	193		386
Rural	95(49.22)	93(48.19)	.041(0.839)	188
Urban	98(50.78)	100(51.81)		198
Household size	4.02	4.12		
Household size (%)				
1	35(18.13)	0		35
2-3	66(34.20)	71(36.79)		137
4 and above	92(47.67)	122(63.21)		214
Sex ratio	0.59	0.98		
Number of earning members				
No earning members	22(11.40)	4(2.07)		26
1	104(53.89)	88(45.60)		192
2 and above	67(34.71)	101(52.33)		168
Age				
Below-30	15(7.77)	12(6.22)		27
31-45	49(25.39)	79(40.93)		128
46-60	70(36.27)	78(40.41)		148
60 above	59(30.57)	24(12.44)		83

Source: Primary survey, 2021

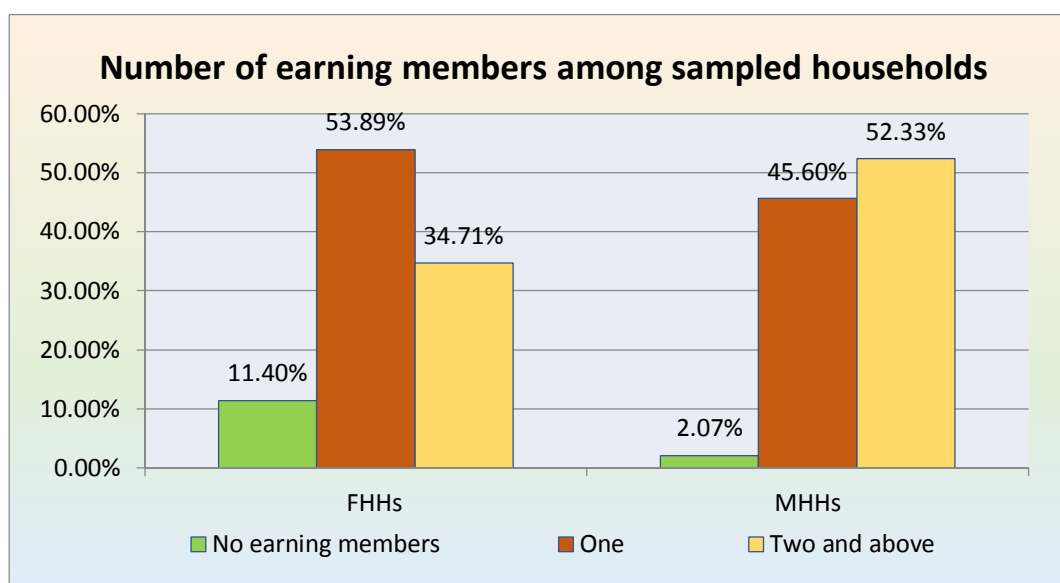
According to table (5.3), about 49.22 percent of female-headed households are living in **rural areas**, compared to about 50.78 percent of female-headed households in **urban**. That is the share of female-headed households in the urban area is slightly higher than the corresponding percentage of female-headed households in rural. Chi-square shows no significant association between place of residence and female headship (Chi-square = 0.41, P-Value = 0.839, $P > 0.05$).

Regarding the household size, female-headed households have comparatively fewer household members especially fewer male members due to male out-migration, spouse death/divorce, or unmarried status of the female head. In the study area about 18.13 percent of them live alone, 34.20 percent of them have two to three members and 47.67 percent have four members. Whereas male-headed households have a higher household size, about 36.79 percent have two to three members, as well as around 63.21 percent, have above four household members.

The study also reveals that the sex ratio (the number of males divided by the number of females) of female-headed households is lower as compared with the male-headed counterparts which mean a higher proportion of female overall will be residing in such households which reflects their economically vulnerable position as compared with the male-headed counterparts.

The number of earning members in the family is another indicator that discloses the demographic and economic position of each household. The following figure depicts the fact that the number of male earning members in FHHs is in decreasing trend owing to the death, divorce, or separation of the partner as well as their smaller household size. Whereas, male-headed households are comparatively better in the number of earning members due to the presence of the male partners and their large household size.

Figure 5.3 *Number of earning members among sampled households*



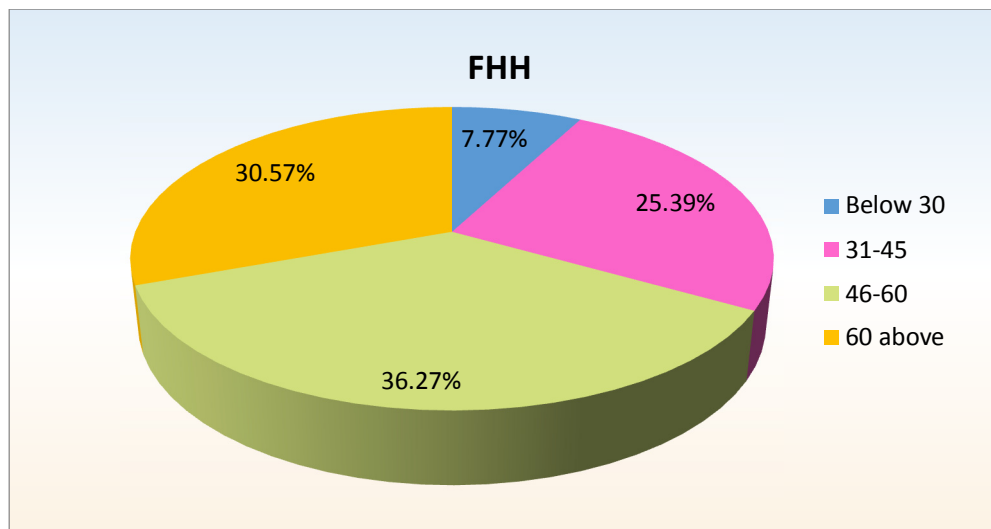
Source: Primary survey, 2021

From figure 5.3, it is clear that about 11.40 percent of FHHs have no earning members and they are completely dependent on a pension from the government. The households with no earning members in FHHs (11.40) are comparatively high as that of MHHs (2.07 %). Likewise, about 53.89 percent of FHHs have only one

earning member is significantly higher compared with male-headed households (45.60). The number of earning members more than two are comparatively less in FHHs (34.71) as compared with MHHs (52.33).

Age is another indicator of determining headship in each household. From the survey, it is clear that female headship can occur in any age group. From the youngest age group (below 30) the distribution of female headship is comparatively lower (7.77 %) whereas its proportions are quite high with age increases. That means about 66.84 percent of the female are heading their households in the age group 45 and above. From table 5.4, it is clear that the proportion of male-headed households above the age group 60 and above is comparatively lower it is only about 12.44 percent only, whereas, in FHHs, its proportion is 30.57 percent. All these results indicate that age is playing an important role in the creation of female headship among families. Most of the FHHs in the age group 60 and above are widows, followed by single and wives of unemployed.

Figure 5.4 *Distribution of female-headed households with age*



Source: Primary survey, 2021

Figure 5.4 represents the occurrence of female headship under different age groups. From the figure, it is clear that the majority of women became head of their household at the age group 60 and above. Most of the women who fall under this age

group are widows. This means widowhood is the most common factor responsible for FHHs in Kerala.

Table 5.4 *Socio-economic features of FHHs &MHHs*

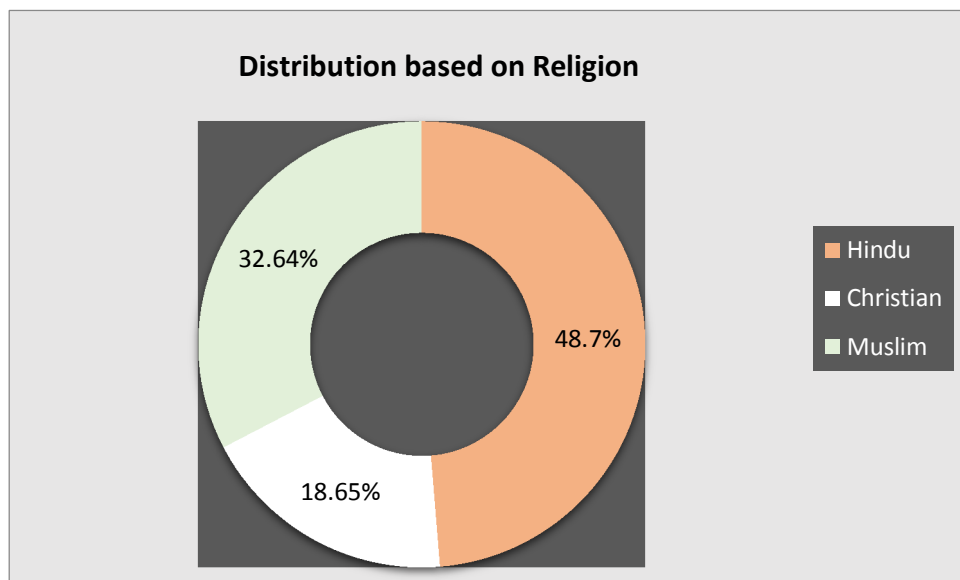
Categories	FHHs	MHHs	Chi-square	Total
Social class				
Above Poverty Line	106 (54.92)	151(78.24)	23.577(.000)	257
Below poverty Line	87 (45.08)	42 (21.76)		129
Religion				
Hindu	94 (48.70)	81 (41.96)	2.688(.261)	175
Muslim	63 (32.64)	64 (33.16)		127
Christian	36 (18.66)	48 (24.87)		84
Caste				
Scheduled Tribe/Scheduled Caste	20 (10.36)	16 (8.29)	2.978(.226)	36
OBC	125 (64.77)	114 (59.07)		239
Others	48 (24.87)	63 (32.64)		111
Marital status				
Widow	74(38.34)		386.00(.000)	74
Divorced	31 (16.06)			31
Spouse Unemployed or disabled	22 (11.40)			22
Single/Unmarried	21 (10.89)			21
Wife of migrant	45 (23.31)			45
Male headed households		193		193
Education				
Primary	32 (16.59)	7 (3.63)	29.934(.000)	39
Secondary	89 (46.11)	96 (49.74)		185
Higher secondary	31 (16.06)	34 (17.62)		65
Graduate and above	41(21.24)	56(29.01)		97
Occupation				
No employment	119 (61.66)	139 (72.02)	20.923(.004)	258
Employed (Govt or Private sector)	34 (17.62)	37(19.17)		71
Retired from services	6 (3.12)	8 (4.15)		14
Casual laborer/servant	34(17.60)	9 (4.66)		43
Level of income				
Below 10000	59 (30.57)	27 (13.99)		86
10001-25000	54 (27.98)	50 (25.91)		104
25001-40000	24 (12.44)	46 (23.83)		70
40001-55000	23 (11.92)	22 (11.40)		45
55001-70000	12 (6.21)	14 (7.26)		26
70001and above	21 (10.88)	34 (17.62)		55

Source: Primary survey, 2021

When we consider the *social class* of the respondent, 54.92 percent of the FHHs belong to the above poverty line and 45.08 percent are below the poverty line. Whereas, the proportion of MHHs belonging above the above poverty line are higher (78.24) and only minor proportions have belonged to the below poverty line (21.76). This implies that most of the FHHs are poor as compared with the women from male-headed households. Chi-square shows a highly significant association between social class and household headship which shows these two variables are not independent (Chi-square =23.577, P-Value, 0.00, $P < 0.05$).

Religion instills a particular philosophy of life in individuals. Female-headed households are found in all religious groups in both Malappuram and Thrissur Districts. Religion-wise distribution of sample households addresses that a major proportion of female-headed households belong to Hindus (48.70), followed by Muslims (32.64) and Christian (18.66). Similarly in male-headed households, major proportions belong to Hindus (41.96) followed by Muslims (33.16) and Christian (24.87). Chi-square shows there is no significant association between religion and household headship (Chi-square -2.688, P-Value, 0.261, $P > 0.05$).

Figure 5.5 *Distribution of female-headed households based on religion*



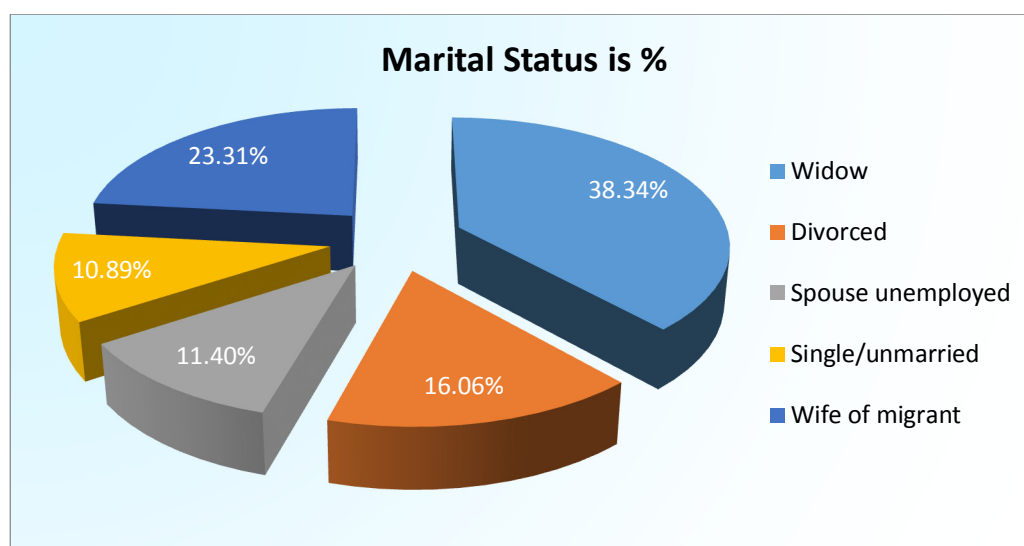
Source: Primary survey, 2021

Figure 5.5 exhibits that 48.70% of the female-headed households are of Hindu Religion followed by Muslim (32.64) and Christian (18.65).

When we consider the *caste* of female headship, the share of FHHs in the SC/STs category is comparatively lower, and it is only about 10.36 percent. A remarkable proportion of female heads come under the OBC category (64.77) followed by other forward castes (24.87). Similarly in MHH major proportions come under the OBC category (59.07), followed by the forward caste (32.64) and SC/ST (8.29).

All women are not assigned equal esteem and prestige in society. Married women receive more respect than widowed, divorced, separated, or unmarried. Thus, we can say that *marital status* plays an important role in the economic and social status of women in society. In this section, we have classified the marital status of the heads of households into five categories, namely, widow, divorced, spouse unemployed/disabled, single, and wife of migrant. Chi-square shows a significant association between marital status and household headship (Chi-square =386.00, P-Value, 000, $P < 0.05$).

Figure 5.6 *Distribution of FHHs household with marital status*

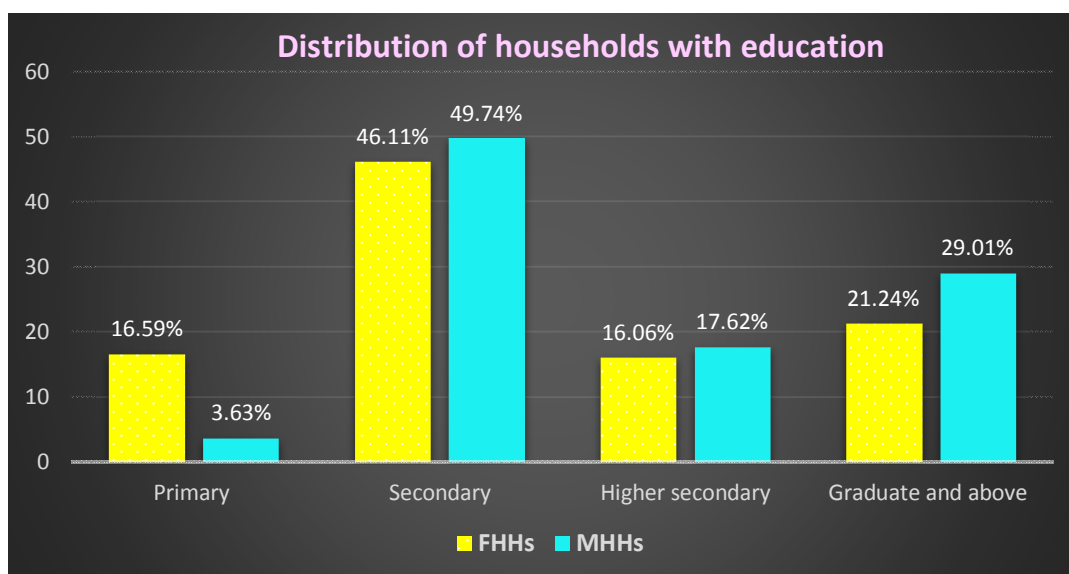


Source: Primary survey, 2021 spouse unemployed

Figure 5.6 illustrates the marital status of a household headed by women. Out of 193 FHHs, 38.34 percent of them consist of widows, followed by the wife of migrant (23.31), divorced (16.06), wife of unemployed or disabled (11.40), and single (10.89).

Good education is an important means of securing one's future. It is one of the important variables that mark a distinction between the groups. An analysis of the educational attainment of the female and male-headed households over the survey period shows that the former have fewer years of education as compared with the latter. From the figure, the majority of (62.70 %) female heads have a primary or secondary level of education. The proportion of female heads having a higher level of education (21.24 %) is considerably lower than that of MHHs (29.01%). Chi-square shows a significant association between education and household headship (Chi-square = 29.934, P-Value, 000, $P < 0.05$).

Figure 5.7 Distribution of sampled households with education



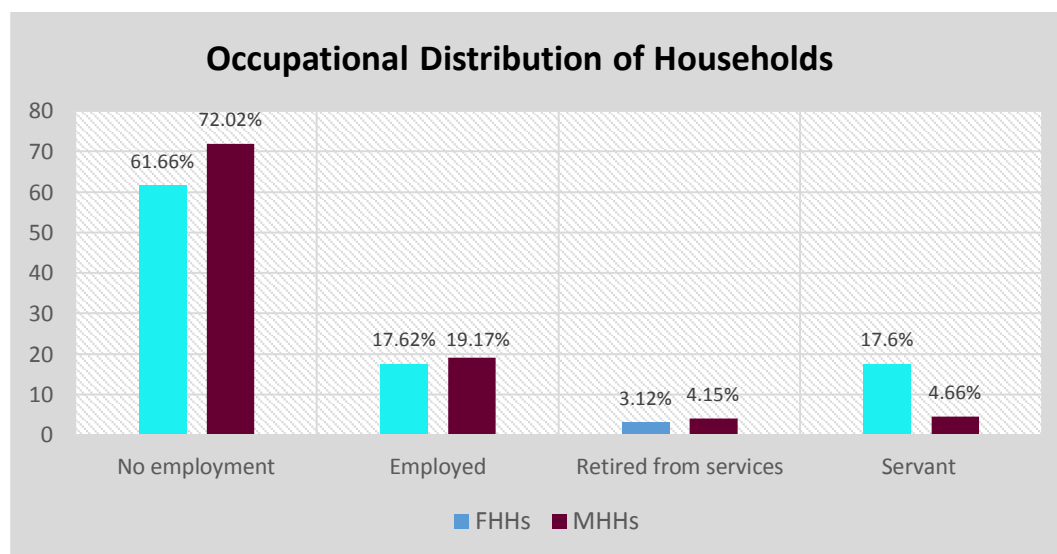
Source: Primary survey, 2021

Figure 5.7 depicts the lower educational qualification of FHHs compared with their male-headed counterparts. The lower educational qualifications often led them to work in informal sectors and to be employed as servants, casual laborers,

helpers, etc. In FHHs, 16.59 percent hold education at the primary level, 46.11 percent at the secondary level, 16.06 percent at the higher secondary level, and 21.24 percent at graduation and above respectively. Whereas, in MHHs its proportions are 3.63 percent, 49.74 percent, 17.62 percent, and 29.01 respectively.

Activity status or occupation is the outstanding determinant of the socio-economic position of the households. As a result, the level of employment for this study has been classified as unemployed, employed in the government sector, private or self-employment, retired from services, casual labors, or servants. From the survey, it is clear that about 61.66 female heads have no occupation at all and are fully depending on others for their survival. The remaining 17.62 percent are working as government employees, working in the private sector, or are self-employed. Furthermore, 17.60 percent of them are working as casual labour and the remaining 3.12 percent of them are retired from government services. Likewise, from the male-headed households, its proportions are 72.02 percent, 19.17 percent, 4.15 percent, and 4.66 percent respectively. Chi-square shows a significant association between occupation and household headship (Chi-square = 20.923, P-Value, 004, $P < 0.05$).

Figure 5.8 Occupational distribution of the sampled households

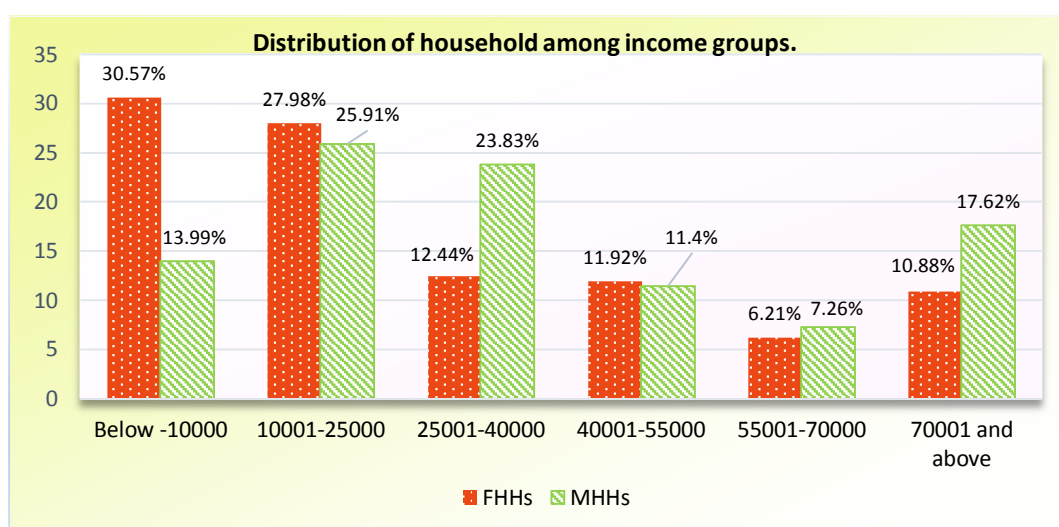


Source: Primary survey, 2021

Figure 5.8 shows that male-headed households are comparatively better or higher in occupational structure. There are a greater number of government employees, bank employees, and doctors among MHHs. Moreover, the percent of households working as casual labor or servant in male-headed households are comparatively very small or negligible (4.66 %) as compared with FHHs (17.60 %), which shows their economic position and bargaining power.

Income is a notable determinant of poverty among households. About 30.57 percent of FHH's income level is below ₹ 10,000 which discloses their economic hardship as compared with their male-headed counterparts (13.99 %). From the survey, it is clear that all the FHHs are not poor. However, a majority of their income is below the poverty line. Likewise, the proportion of female heads belonging to the highest income group (₹ 70,000 and above) is somewhat lower (10.88 %) than that of their male-headed counterparts (17.62 %).

Figure 5.9 Distribution of the sampled household among income groups.



Source: Primary survey, 2021

Figure 5.9 exhibits the income inequality among female and male-headed households in the study area. In the two extreme cases which means in a very low-income group (below ₹ 10000), the proportion of FHHs is comparatively higher (30.57 %), whereas in the higher income category (above ₹ 70000) the proportion of MHHs is higher (17.62 %).

5.4.1 Housing characteristics

Shelter is one of the basic needs of all people. Thus, housing characteristics are important indicators of the socio-economic status of the households and its fulfillment varies according to the financial position of the households. Housing characteristics are explained here by using the variables such as ownership, type of house, sources of drinking water, infrastructure, sanitation, etc, which are summarized in the following table.

Table 5.5 *Housing characteristics of the FHHs &MHHs*

Housing characteristics	Female-headed	Male-headed	Chi-square	Total
Ownership of house				
Owned	170 (88.08)	180 (93.26)	3.063 (.080)	350
Not owned	23 (11.92)	13 (6.74)		36
Type of house				
No house	23 (11.92)	13 (6.74)		36
Pucca	67 (34.70)	98 (50.78)	10.744(.005)	165
Semi pucca	41 (21.24)	57 (29.53)	3.411 (.065)	98
Semi kutcha	38 (19.69)	19 (9.84)	13.995 (.000)	57
Kutcha	24 (12.45)	6 (3.11)	10.687 (.001)	30
Sources of water				
Own well	147 (76.17)	168 (87.05)		315
Piped municipality	25 (12.95)	13 (6.74)	7.644 (.022)	38
Others (Shared /public/neighbors)	21(10.88)	12 (6.21)		33
Infrastructure/Sanitation				
excellent	77 (39.90)	114 (59.07)		191
Good	37(19.17)	43 (22.28)	26.884 (.000)	80
Average	33 (17.10)	22 (11.40)		55
Poor	46 (23.83)	14 (7.25)		60

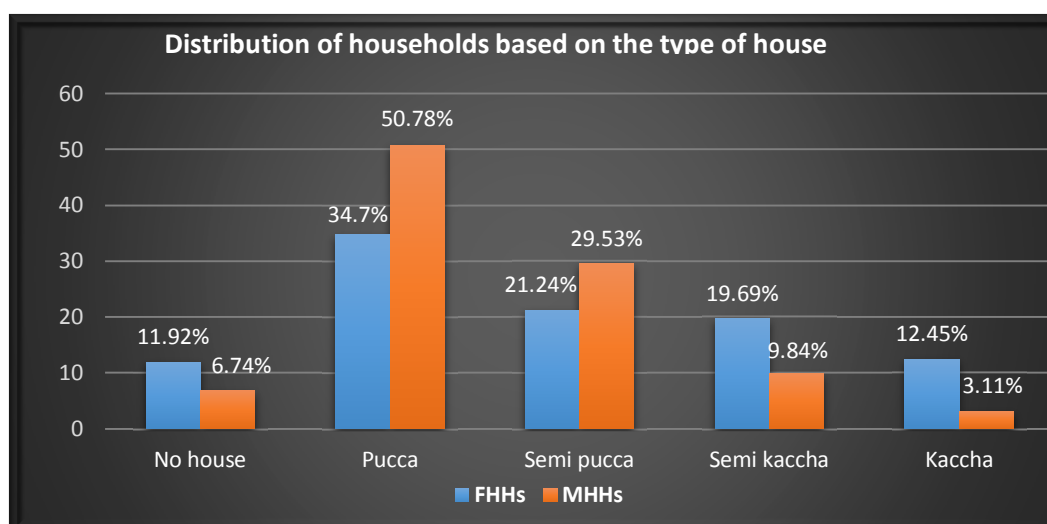
Source: Primary survey, 2021

From table 5.5, it is observed that the percentage of female-headed households without houses is (11.92 %) relatively higher than the corresponding percent of their male-headed counterparts (6.74 %). Chi-square shows no significant

association between household headship and ownership of a house (Chi-square =3.063, P-Value, 0.080, $P > 0.05$)

Regarding the type of house, the distribution of FHHs living in no house, Pucca, Semi Pucca, Semi Kutcha, and Kutcha houses are 11.92 percent, 34.70 percent, 21.24 percent, 19.69 percent, 12.45 percent respectively. Conversely in male-headed households, the proportions are 6.74, 50.78 percent, 29.53 percent, 9.84 percent, and 3.11 percent respectively. In sum, the distribution of female heads living in Kutcha houses is four times higher than their male-headed counterparts. Likewise, the percentage of female head living in semi-Kutcha houses are two times higher (19.69) than their male-headed counterparts (9.84).

Figure 5.10 *Distribution of sampled households based on the type of house*



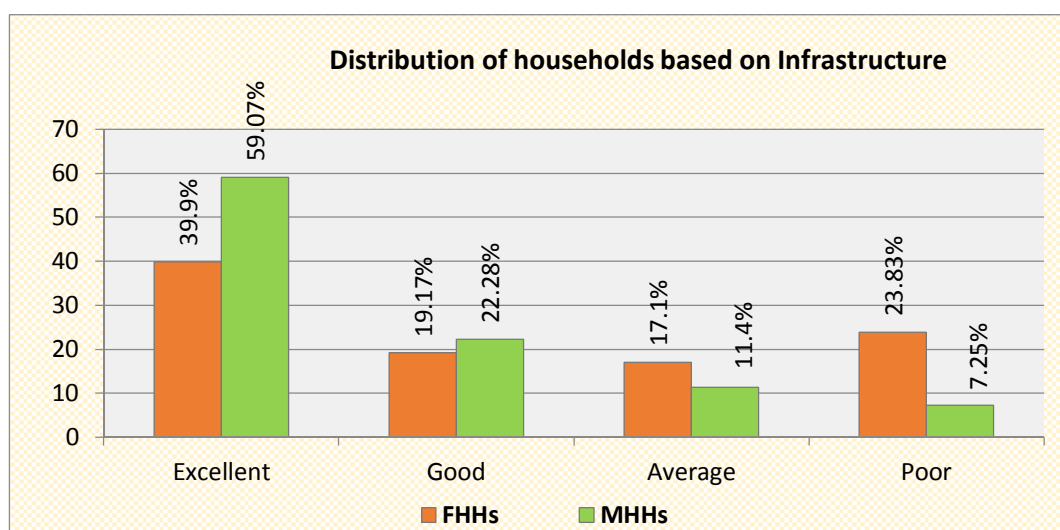
Source: Primary survey, 2021

The proportion of FHHs with no house, Pucca, Semi pucca, Semi Kutcha, and Kutcha consist of 11.92 percent, 34.70 percent, 21.24 percent, 19.69 percent, and 12.45 percent respectively. On the other hand in MHHs their proportions are 6.74 percent 50.78 percent, 29.53 percent, 9.84 percent, and 3.11 percent respectively.

The deprivation of female-headed households is also visible from their sources of drinking water as well as infrastructure and sanitation. Regarding the sources of water, the proportion of households (76.17percent) having their well is

comparatively lesser in female-headed households as compared with their male-headed counterparts (87.05 percent). Few of them are depending on pipelines as a source of drinking water (12.95). Moreover, the proportion of the female head depending upon a neighbour or public well is higher (10.88) than that of their male counterparts (6.21). Chi-square shows a significant association between sources of drinking water and household headship (Chi-square, 7.644, P-Value, 0.022, $P < 0.05$). When we consider the infrastructure of the sampled households, the proportion of female heads living in poor infrastructure is three times higher (23.83) than their male-headed counterparts (7.25). Chi-square shows a significant association between type of house and household headship (Chi-square, 26.884, P-Value, 0.00, $P < 0.05$).

Figure 5.11 *Distribution of sampled households based on infrastructure*



Source: Primary survey, 2021

The distribution of sample households based on infrastructure shows that FHHs are poorer than their male-headed counterparts. The proportion of FHHs living in excellent, good, average, and poor infrastructure consist of 39.90 percent, 19.17 percent, 17.10 percent, and 23.83 percent respectively. Likewise the distribution of the MHHs living in excellent, good average, and poor consist of 59.07 percent, 22.28 percent, 11.40 percent, and 7.25 percent respectively.

5.4.2 Resources available to the Households

It is often argued that FHHs are deprived and discriminated against non-human resources such as ownership of land, livestock, ownership of consumer durables, and other resources, which also have a significant impact on the socio-economic well-being of the FHHs (Census, 2011, NFHS, 4 & 5). Keeping this view, this section discloses the human, social and material resources available to female-headed households based on a household survey.

Table 5.6 Resources available to the FHHs & MHHs

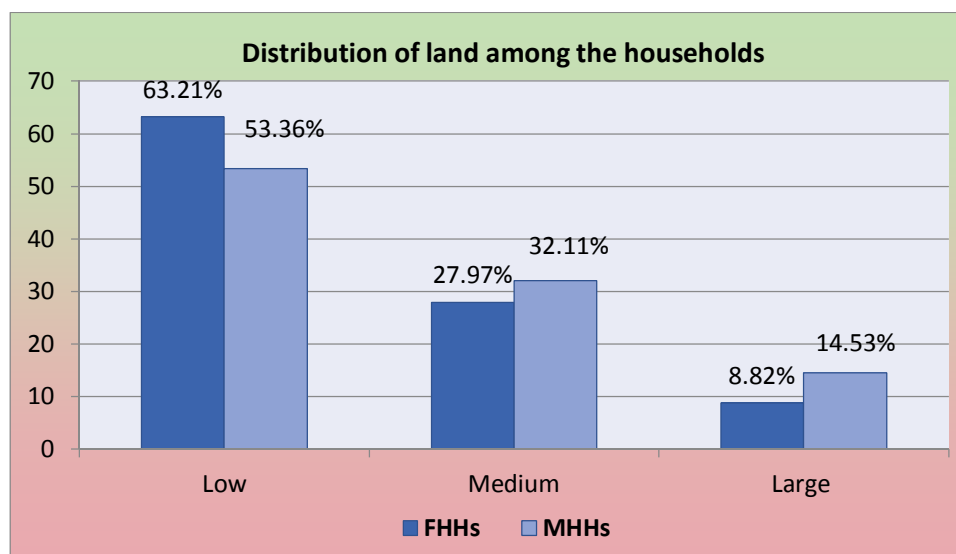
Landholdings	FHHs	MHHs	Chi-square	Total
20	122 (63.21)	103 (53.36)		225
21-40	42 (21.76)	44 (22.79)		86
41-60	12 (6.21)	18 (9.32)		30
61 above	17 (8.82)	28 (14.53)		45
Livestock				
No	185 (95.86)	173 (89.65)		358
Cattle	4 (2.07)	9 (4.66)	5.59 (.061)	13
Poultry	4 (2.07)	11 (5.69)		15
Ownership of consumer durable				
Low	85 (44.1)	30 (15.54)		115
Medium	42 (21.8)	56 (29.02)	39.592 (.000)	98
High	66 (34.1)	107 (55.44)		173

Source: Primary survey, 2021

5.4.2.1 An Ownership of Land

Ownership of land and property often empowers women and access to these two always provides them with income and security. Studies argue that Female-headed households are typically disadvantaged regarding access to land and property rights. Figure 5.12 explains the land ownership of both female and male-headed households. The ownership of land has been categorical as low, medium, and high.

Figure 5.12 *Distribution of land among the sampled households*



Source: Primary survey, 2021

Figure 5.12 shows the unequal distribution of land among female-headed households as compared with their male-headed counterparts. From the figure, it is clear that about 63.21 percent of FHHs have a size of holdings of about 20 cents and 27.97 percent have a size of holding between 21-60 cents (medium size of holding) and 8.82 percent have a large size of holdings (61 and above). The corresponding MHHs are 53.36 percent, 32.11 percent, and 14.53 percent respectively.

5.4.2.2 Ownership of Livestock

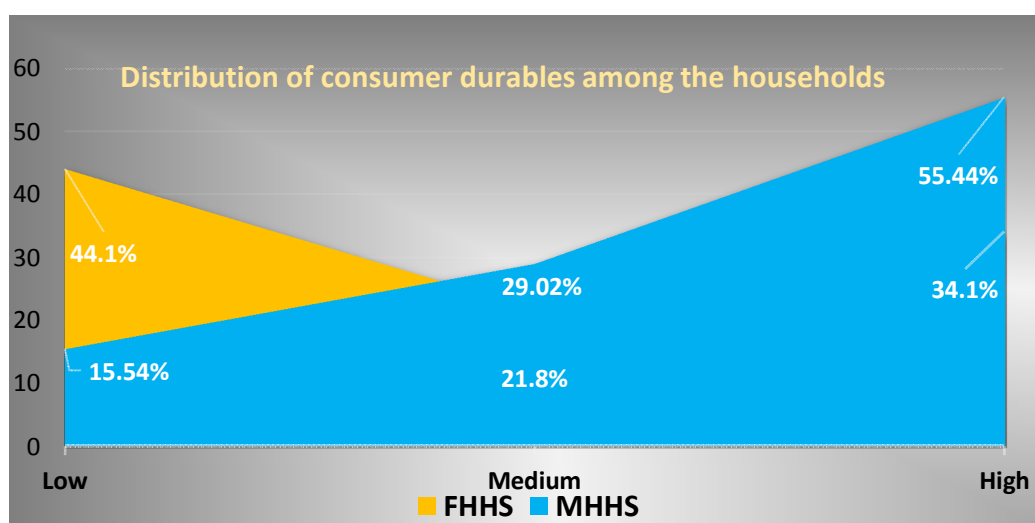
When we consider the livestock of the sampled households, about 95.86 percent of FHHs and 89.65 percent of MHHs do not have cattle and poultry. The proportion of female and male-headed households having cattle and poultry in the study area is only about 5.4 in FHHs and 10.35 in MHHs respectively. Chi-square shows no significant association between the ownership of livestock and the household head (Chi-square, 5.59, P-Value .061, $P > 0.05$).

5.4.2.3 Ownership of consumer durables

Ownership of consumer durables is another indicator that explains the household's socio-economic level and well-being. From the survey, it is clear that the consumer durables such as TV, Sewing machine, Refrigerator, washing machine,

computer, induction cooker, Furniture, AC, Inverter, Microwave oven, four-wheedlers, two-wheedlers, etc are comparatively lower in female-headed households than their male-headed counterparts. Chi-square shows a highly significant association between ownership of consumer durables and household headship (Chi-square 39.592, P-Value .000, $P < 0.05$).

Figure 5.13 *Distribution of consumer durables among the sampled households*



Source: Primary survey, 2021

Figure 5.13 outlines the ownership of consumer durables both in male and female-headed households. The possession of consumer durables in FHHs are categorized as low (44.1 %) medium (21.8 %) large (34.1 %) respectively. Whereas in MHHs its proportion is relatively higher i.e 15.54 percent (low), 29.02 percent (medium), and 55.44 percent (High). Census, 2011& NFHS various rounds also reported that FHHs are deprived in terms of Human as well as material assets than their male-headed counterparts.

5.5 Distribution of the respondents based on education and marital status

Education is another important factor that influences an individual's personality characteristics, way of thinking, acting, and perceiving different issues. It also determines occupation and income which in turn influences an individual's ability to handle situations.

Table 5.7 *Education and marital status of the respondents*

Education Marital status	Widow	Divorced/ Separated	Wife of Unemployed.	Single	Wife of migrant	Male headed	Total
Primary	16 (21.62)	7 (22.58)	3 (13.63)	6 (28.57)	0	7 (3.60)	39
Secondary	35 (47.29)	16 (51.61)	12 (54.54)	12 (57.14)	14 (31.11)	96 (49.70)	185
Higher secondary	11 (14.86)	3 (9.68)	2 (9.09)	1 (4.76)	14 (31.11)	34 (17.61)	65
Degree and above	12(16.23)	5 (16.13)	5 (22.74)	2 (9.53)	17 (37.78)	56 (29.09)	97
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

It is seen from table 5.7, that out of 386 sampled households, a large part of the respondent's educational qualifications are at the secondary level (5-10 years) both in male and female-headed households. Among FHHs, migrant wives are better in terms of education as compared with the single, widowed, wife of the unemployed, and divorced heads.

Considering the education of women from male-headed households, out of 193 households, half (49.70 %) of them have an educational qualification at the secondary level, followed by graduates (29.09 %) and higher secondary level qualifications (17.61%). The proportion of respondents having primary education is significantly lower in MHHs (only 3.60 %) as compared with female-headed households (86.4 %). Thus, the study concludes that women from male-headed households have higher educational qualifications than widowed, divorced, and disabled heads. The lack of education among FHHs often causes several socio-economic deprivations among them.

5.6 Distribution of the Respondents based on age and Marital status

Headship may fall at any age group regardless of income, religion, and place of residence. Table 5.8 points out the distribution of the respondents by their marital status among various age categories as shown below.

Table 5.8 *Age and marital status of the respondents*

Age Marital status	widow	Divorced/Se parated	Unemployed /Disabled	Single	Wife of migrant	(Male headed)	Total
30	0	0	0	0	15 (33.3)	12 (6.2)	27
31-45	5 (6.8)	11 (35.5)	6 (27.3)	4 (19.1)	23 (51.1)	79 (40.9)	128
46-60	24 (32.4)	19 (61.3)	10 (45.5)	10 (47.6)	7 (15.6)	78 (40.4)	148
61 Above	45 (60.8)	1 (3.2)	6 (27.2)	7 (33.3)	0	24 (12.5)	83
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.8 points out the distribution of the respondents by their marital status among various age categories. It is evident from the survey that in the very young age group below 30 as well as between 31 -45 years, women assume headship because of male out-migration (84.4 %) followed by divorced (35.5), wives of disabled (27.3) and single (19.1). The proportion of widowhood at a very young age is (30-45 years) comparatively lower (6.8 % only), whereas in the age group, between 61 and above widowhood is the main cause of female headship (60.8 %) followed by a single (33.3 %) and wife of unemployed (27.2 %) respectively.

5.7 Distribution of the respondents based on family income and marital status

Income is another significant factor that determines the socio-economic status of the respondents. Table 5.9 explains the distribution of income among marital statuses.

Table 5.9 *Household income and marital status of the respondents*

Marital status Income	widow	Divorced/ Separated	Unemplo yed/ Disabled	Single	Wife of migrant	(Male headed)	Total
Below-10000	17 (22.96)	16 (51.6)	10 (45.5)	16 (76.1)	0	27 (14.0)	86
10001-25000	30 (40.54)	10 (32.3)	8 (36.4)	3 (14.3)	3 (6.70)	50 (25.9)	104
25001-40000	10 (13.5)	3 (9.7)	1 (4.5)	1 (4.8)	9 (20.0)	46 (23.8)	70
40001-55000	9 (12.2)	1 (3.2)	3 (13.6)	1 (4.8)	18 (40.0)	31 (16.1)	63
55001-70000	4 (5.4)	0	0	0	6 (13.3)	13 (6.70)	23
70001 Above	4 (5.4)	1(3.2)	0	0	9 (20.0)	26 (13.5)	40
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

From table 5.9 out of 386 respondents, 22.27 percent of households belong to the low-income category (below ₹ 10,000). Most of the single, divorced, and wives of unemployed fall under this age group. Their lower income is mainly associated with the lack of earning members in such households and the irregular job opportunities in the informal sector. Furthermore, most of the female heads are working as casual labour, servant, and helper in the study area. This type of work enables them to receive wages only for their subsistence. When we consider the monthly income of the widowed households, the majority's income (40.54 %) falls under ₹ 10001-25000. It also found that widows are comparatively better than single, and divorced heads as the majority of widows get support from their children.

In the highest income group (above ₹ 70,000), the wife of migrants constitute a higher share (20 %) followed by male-headed households (13.5 %). In sum, the table addresses that, most of the female-headed households (except for migrant wives) income levels are comparatively lower than that of male-headed households.

5.8 Distribution of the respondents based on earning members and marital status

It is generally reported that female-headed households have fewer earning members and more dependents as compared with their male-headed counterparts which often resulted in vulnerability among the former.

Table 5.10 *Marital status and earning members of the respondents*

Earning member Marital status	widow	Divorced/ Separated	Unemployed/ disabled	Single	Wife of migrant	MHHs	Total
No earning member	11 (14.86)	3 (9.67)	2 (9.09)	5 (23.80)	0	4 (2.08)	25
1.00	34 (45.96)	18 (58.08)	14 (63.64)	12 (57.16)	27 (59.9)	88 (45.59)	193
2and above	29 (39.18)	10 (32.25)	6 (27.27)	4 (19.04)	18 (40.1)	101(52.33)	168
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.10 shows that the number of earning members in female-headed households is relatively smaller than that of their male-headed counterparts. Out of 74 widow-headed households, 45.96 percent have only one earning member, it may be either head itself or any other member. About 14.86 percent of widows, 9.67 percent of separated family heads, 9.09 percent of disabled, and 23.80 percent of single heads have no earning members, as the majority of them are staying alone or due to the illness of their spouse. In this regard, they are completely dependent on a government pension and support from others. At the same time, the situation of MHHs is entirely different where most of the households (52.33) have more than two earning members. Thus, the study infers that the deprivation of FHHs is mainly because of the absence of income providers and the significant number of dependents among them.

5.9 Distribution of the respondents based on occupation and marital status

Occupation is another significant factor that determines the socio-economic status of the sample respondents. Table 5.11 explains the marital status and occupation of the sampled respondents.

Table 5.11 *Occupation and marital status of the respondents*

Occupation	Widow	Divorced	Wives of unemployed	Single	Wife of migrant	Male headed	Total
Unemployed	48 (64.9)	10 (32.3)	11 (50.0)	12 (57.1)	38 (84.4)	139 (72)	258 (66.85)
Employed	20 (27.1)	21 (67.7)	11 (50)	9 (42.9)	7 (15.6)	46 (23.9)	114 (29.53)
Pensioners	6 (8.0)	0	0	0	0	8 (4.1)	14 (3.62)
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.11 explains the occupation and marital status of the sampled respondents. It is evident from the survey that out of 386 respondents 66.85 percent of women are unemployed, 29.53 percent of respondents are employed, and 3.62 percent of respondents are receiving retirement pensions. Among FHHs divorced heads' participation in employment is comparatively higher than others.

Most of the divorced heads from the survey reported that they have no support from their in-laws and other family members. Their children also do not have any contact with their father after the divorce. About single head, the majority of them stay with their relatives and have a little bit of support from their siblings. In this regard, more than half of the single head (57.1 %) remained unemployed and the remaining 42.9 percent are employed to care for their siblings and family members. Among widowed heads, 64.9 percent of respondents are unemployed as they have support from their children. The remaining 27.1 percent of them are employed to care for their children and family members. Among widowed heads, 8 percent of them receive retirement pensions.

In sum, the study reported that among the unemployed category wife of migrant ranks top followed by women from male-headed households. This is mainly because of their higher household income and family status. In between employed category, divorced women rank top followed by the wife of an unemployed and single head. It is also interesting to note that major proportions of the female heads are working as casual laborers or servants. This also shows their vulnerable position compared to women from their male-headed counterparts.

5.10 Distribution of the respondent based on household headship and decision making

Table 5.12 *Household headship and decision making of the respondents*

Decision-making	Female headship	Male headship	Total
Control over very Few decisions	26 (13.5)	6 (3.1)	32
Control over some decisions	80 (41.4)	174 (90.2)	254
Control over all decisions	87 (45.1)	13 (6.7)	100
Total	193	193	386

Source: Primary survey, 2021

Table 5.12 illustrates that FHHs have more decision-making power than their male-headed counterparts. In FHHs, the majority (45.1 percent) of them have control over all decisions such as the purchase of cooking utensils, purchase of furniture and land, transfer of property, visiting relatives, children's education and marriage, etc as compared with the women from their male-headed households

(6.7 %). Whereas, most of the women from male-headed households, possess control over some of the decisions only (90.2 %) as most of the decisions are taken by their spouse alone. It is also significant that those FHHs who reside with relatives/siblings / nuclear families have only a little control over the household affairs (13.5 %) than those who stay alone.

Table 5.13 *Marital status and decision making of the respondents*

Household's decision-making power	Widow	Separated	Unemployed/ disabled	Single	Wife of migrant	Married	Total
Control over very few decision	6 (8.2)	1 (3.2)	0	11 (52.4)	8 (17.8)	3.1	32
Control over some decision	26 (35)	11 (35.5)	14 (63.6)	3 (14.3)	26 (57.8)	174 (90.2)	254
Control over all decision	42 (56.8)	19 (61.3)	8 (36.4)	7 (33.3)	11 (24.4)	13 (6.7)	100
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.13 depicts the relation between marital status and the decision-making power of the sampled respondents. The study infers that those divorced head who stays alone have more control (61.3 %) over household affairs followed by the widowed head (56.8 %). Whereas, as described above, a majority (90.2 %) of the MHHs have control over some of the household affairs followed by the wife of unemployed (63.6 %) and wives of migrants (57.8 %). In addition to that, unmarried women (52.4 %) who stay with their relatives have control over very few decisions in their household affairs. Likewise, those migrant wives who reside in nuclear families also have control over very few decisions regarding their household affairs.

Table 5.14 *Headship and community participation of the respondents*

Group participation	Female-headed	Male headed	Total
Never	126 (65.2)	156 (80.8)	282
Some time	10 (5.3)	9 (4.7)	19
Most of time	57 (29.5)	28 (14.5)	85
Total	193	193	386

Source: Primary survey, 2021

Table 5.14 shows the distribution of female and male-headed households based on their participation in community activities. From the table, it is evident that the participation of female-headed households in the community activities such as attending Panjayath meeting/ Grama sabha, involvement in Public protest or Political campaigns, etc is comparatively higher than women from their male-headed counterparts. The respondent participating in community activities most of the time in FHHs are (29.5 %), more than double as compared with the women from male-headed households (14.5). Whereas, 80.8 percent of respondents from MHHs and 65.2 percent of respondents from FHHs are never participating in any activities of the community.

Table 5.15: *Marital status and community participation of the respondents*

Category	Widow	Divorced/ Separated	Wife of Unemployed or disabled	Single	Wife of migrant	Married	Total
Never	52 (70.2)	17 (54.8)	9 (40.9)	10 (47.6)	38 (84.5)	156 (80.7)	282
Some time	4 (5.4)	3 (9.7)	1 (4.5)	0	2 (4.4)	9 (4.7)	19
Most of time	18 (24.4)	11 (35.5)	12 (54.6)	11 (52.4)	5 (11.1)	28 (14.6)	85
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.15 discloses the marital status and the community participation of the respondents. From the table, if we compare the community participation of male and female-headed households, we can see that the proportion of wives of unemployed or disabled women's participation (54.6 %) is very much higher, followed by single (52.4 %) divorced/separated (35.5 %) and widowed (24.4 %). Their community participation is high because of the support received from the community members and leaders. Among the total respondents, the proportion of wives of migrant's participation in community activities is smaller (11.1 %) than that of the women from their male-headed counterparts (14.6 %). All this evidence shows that those who are getting benefits from the community are actively involved in such participation and vice-versa.

Table 5.16 *Headship and recreational activity of the respondents*

Recreation	Female-headed	Male headed	Total
Never	135 (70)	67 (34.7)	202
Some time	20 (10.3)	39 (20.2)	59
Most of time	38 (19.7)	87 (45.1)	125
Total	193	193	386

Source: Primary survey, 2021

Table 5.16 shows the distribution of male and female-headed households among various recreational activities. To understand the recreational activities of the respondents, the following information was collected from the respondents like- does the respondent attend festivals? In leisure time does the respondent spends away from home? Does the respondent spend leisure time with friends? Does the respondent's family take lunch outside? Does the respondent go for walk or park whenever getting free? The recreational activities explained above are classified under three categories: most of the time, sometimes, and never. From the table, it is seen that the recreational activities of the FHHs are comparatively lower than that of the women from their male-headed counterparts. It was also found that in FHHs, 70 percent of the respondent are never participating in any recreational activities, 10.3 percent of respondents sometimes participate, and 19.7 percent of respondents most of the time involved in recreational activities. Whereas in male-headed households its proportions are never (34.7) sometimes (20.2) and most of the time (45.1) respectively.

Table 5.17 *Marital status and recreational activities of the respondents*

	Widow	Divorced/ Separated	Wife of Unemployed	Single	Wife of migrant	Married	Total
Never	66 (89.2)	27 (87.0)	18 (81.9)	19 (90.4)	5 (11.1)	67 (34.7)	202
Some time	4 (5.3)	2 (6.5)	3 (13.6)	1 (4.8)	10 (22.2)	39 (20.2)	59
Most of time	4 (5.5)	2 (6.5)	1 (4.5)	1 (4.8)	30 (66.7)	87 (45.1)	125
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

Table 5.17 illustrates that the recreational activities (visiting the park, beach, tour, watching movies, etc) of the FHHs are very low as that of the women from their male-headed counterparts. It is mainly because of the time constraints, higher household responsibilities along with their outside employment, socio-cultural taboos, and lack of income among such households.

From the table, most of the single, widowed, divorced/ separated heads, and wives of unemployed/disabled husbands are never participating in any recreational activities. While the participation of the wife of the migrant in recreational activities is comparatively higher (66.7 percent) than that of the women from their male-headed counterparts (45.1 percent).

Table 5.18 *Household headship and health status of the respondents*

Category	FHHs	MHHs	Total
Poor	78 (40)	27 (14)	105
Average	26 (13)	24 (12.4)	50
Good	89 (47)	142 (73.6)	231
Total	193	193	386

Source: Primary survey, 2021

Table 5.18 illustrates that the health status of female-headed households is poor as compared with the women from their male-headed counterparts. From the table out of 193 FHHs, 47 percent of respondents' health status is good, 13 percent are average and 40 percent are poor. Whereas from male-headed households, its proportions are 73.6 percent, 12.4 percent, and 14 percent respectively. In sum, the proportion of poor health status is considerably higher in FHHs, (as the majority of them are 60 and above) which is more than double that of the women from their male-headed counterparts.

Table 5.19 *Type of exclusions and marital status of the respondents*

Exclusion	Widow	Separated	Unemployed/ disabled	Single	Wife of migrant	Married	Total
Never	39 (53)	6 (19.4)	19 (86.4)	2 (9.5)	44 (97.8)	190 (98.5)	300
Family	2 (2.0)	7 (22.6)	0 (0)	6 (28.6)	0	2 (1.0)	17
Self	33 (45)	18 (58)	3 (13.6)	13 (61.9)	1 (2.2)	1 (0.5)	69
Total	74	31	22	21	45	193	386

Source: Primary survey, 2021

From table 5.19, we can see that self-isolation is common among FHHs. Among them, 28.6 percent of single heads have been exploited by their family itself followed by the divorced or separated head (22.6 %). Self-isolation means the act of isolating or separating oneself or itself from others. If we take the self-isolation, the majority (61.9 %) of the single head is self-isolated because of their unmarried status. In the case of divorced/separated heads, they are isolated due to the attitude of society towards them (58 %). In widowed heads, isolation is owing to the permanent absence of their spouse (45 %). Among FHHs, single, divorced, and widowed heads are victims of physical and verbal abuse from their families as well as society.

Table 5.20 Rural-urban comparison of the respondents among districts

Categories	Malappuram		Thrissur		Total
	Rural	Urban	Rural	Urban	
Headship					
Female head	38(19.69)	36(18.66)	56(29.01)	63(32.64)	193
Male head	40(20.7)	38(19.7)	53(27.5)	62(32.1)	193
Social status					
BPL	27(20.9)	26(20.2)	53(41.1)	23(17.8)	129
APL	51(19.8)	48(18.7)	56(21.8)	102(39.7)	257
Religion					
Hindu	27(15.4)	18(10.3)	57(32.6)	73(41.7)	175
Muslim	51(40.2)	56(44.1)	14(11)	6(4.7)	127
Christian			38(45.2)	46(54.8)	84
Marital status					
Widow	12(16.2)	5(6.8)	19(25.7)	38(51.3)	74
Divorced	7(22.6)	5(16.1)	11(35.5)	8(25.8)	31
Spouse Unemployed or disabled	3(13.6)	3(13.6)	6(27.3)	10(45.5)	22
Single/Unmarried	0	4(19.0)	14(66.7)	3(14.3)	21
Wife of migrant	16(35.6)	19(42.2)	6(13.3)	4(8.9)	45
Male headed households	40(20.7)	38(19.7)	53(27.5)	62(32.1)	193
Education					
Primary	8(20.5)	5(12.9)	24(61.5)	2(5.1)	39
Secondary	43(23.2)	45(24.3)	48(25.9)	49(26.6)	185
Higher secondary	16(24.6)	16(24.6)	18(27.7)	15(23.1)	65
Graduate and above	11(11.3)	8(8.2)	19(19.6)	59(60.9)	97
Occupation					
No employment	59(22.9)	62(24.0)	57(22.1)	80(31.0)	258
Employed (Govt /Private sector)	18(15.79)	11(9.65)	51(44.73)	34(29.83)	114
Retired from services	1(7.1)	1(7.1)	1(7.1)	11(78.6)	14

Source: Primary survey, 2021

From table 5.20, the proportion of rural and urban FHHs both in Malappuram and Thrissur districts consist of 19.69 percent, 18.66 percent, 29.01 percent, and 32.64 percent respectively. If we take the district-wise comparison of widowhood, in the Malappuram district majority of widows belong to the rural area whereas, in Thrissur, a major part of widows resides in an urban area. Regarding the occupation of the respondents, the greater part of the employed households resides in rural areas of both Malappuram (15.79 %) and Thrissur (44.73 %).

Table 5.21 *District wise comparison of the respondents*

Categories	Malappuram	Thrissur	Total
Headship			
Female head	74(38.34)	119(61.66)	193
Male head	78(40.41)	115(59.59)	193
Social status			
BPL	53(41.08)	76(58.92)	129
APL	99(38.52)	158(61.48)	257
Religion			
Hindu	45(25.75)	130(74.25)	175
Muslim	107(84.26)	20(15.74)	127
Christian		84(100)	84
Marital status			
Widow	17(22.98)	57(77.02)	74
Divorced	12(38.71)	19(61.29)	31
Spouse Unemployed or disabled	6(27.28)	16(72.72)	22
Single/Unmarried	4(19.04)	17(80.96)	21
Wife of migrant	35(77.78)	10(22.22)	45
Male headed households	78(40.41)	115(59.59)	193
Education			
Primary	13(33.33)	26(66.67)	39
Secondary	88(47.57)	97(52.43)	185
Higher secondary	32(49.23)	33(50.77)	65
Graduate and above	19(19.59)	78(80.41)	97
Occupation			
No employment	121(46.90)	137(53.1)	258
Employed (Govt /Private sector)	29(25.43)	85(74.57)	114
Retired from services	2(14.29)	12(85.71)	14

Source: Primary survey, 2021

Table 5.21 discloses the socio-economic characteristics of the sampled households in the Malappuram and Thrissur districts. The total number of female and male-headed households both in Malappuram and Thrissur districts consists of 74(F), 78 (M), 119(F), and 115(M) respectively. Considering the social status among the two districts, the Thrissur district belongs to the highest proportion of BPL households (58.92 %). When we consider the religion of the sample households, Thrissur district is top in Hindu respondents (74.25 %), whereas Malappuram has the highest proportion of Muslim respondents (84.26 %). In the context of marital status between the two districts, Thrissur district holds the highest proportion of widows (77.02 %) whereas Malappuram ranks top in the wife of migrants (77.78 %). If we consider the education and employment level of the sample respondent, Thrissur district holds the highest position than Malappuram. The proportion of graduates in Thrissur district consists of 80.41 percent, whereas in Malappuram it is only about 19.59 percent. Likewise, the proportion of the employed respondent in Thrissur and Malappuram consist of 74.57 and 25.43 respectively. Furthermore, the proportion of the respondent who retired from government services is also very low in the Malappuram district (14.29 %) as compared with Thrissur (85.71 percent).

5.11 Conclusion

This section covers the socio-economic and demographic characteristics of the household headed by women in comparison with the women from male-headed households. The study infers that widowhood is the common root cause of female headship followed by deserted women due to male out-migration. The demographic features of the sampled households reveal that FHHs are deprived in terms of household size, the number of earning members, and age as compared with the women from the male-headed counterparts. The lowest sex ratio among FHHs due to the permanent and temporary absence of the male partner also added to their vulnerability.

Religious wise classification of the FHHs reveals that the majority of them are from the Hindu religion, followed by Muslim and Christian. Moreover, they are more deprived in terms of education, sound occupation, and level of income as compared with women from male-headed counterparts.

Regarding the housing characteristics, FHHs are comparatively worse-off in ownership of the house, type of house, sanitation, and infrastructure. From the survey, it is clear that they are more deprived in terms of human as well as non-human resources such as ownership of land, livestock, and ownership of consumer durables which also have a significant impact on their socio-economic well-being in many aspects. Furthermore, they are also subjected to exclusion from family, self, and society.

With regards to community participation (such as participation in Grama saba, Panjayath meetings, and public protest) the involvement of FHHs is considerably higher. Whereas, in entertainment or recreational activities, their participation is comparatively lower or rare than that of women from male-headed households.

The district-wise comparison of the FHHs both in Malappuram and Thrissur districts implies that most of the FHHs reside in the rural area of Malappuram. Contrarily, in the Thrissur district, they have appeared in the urban area. Regarding the religion of the sample households, Thrissur district ranks top in Hindu respondents whereas Malappuram has the highest proportion of Muslims. With regards to the marital status between the two districts, Thrissur district holds the highest proportion of widowed, divorced, spouse unemployed, and single head. Conversely Malappuram ranks top in the deserted women due to male out-migration. Concerning the education and employment level of the sample respondents, Thrissur district holds the highest position than Malappuram. The proportion of the graduates, as well as the proportion of the respondents who retired from government services, are also higher in Thrissur than in the Malappuram district.

CHAPTER 6

INCOME AND ASSET VULNERABILITIES OF THE HOUSEHOLD HEADED BY WOMEN IN KERALA

CONTENTS

6.1	Introduction	128
6.2	The context of vulnerability.....	128
6.3	Vulnerability among female-headed households	129
6.4	Factors of vulnerability among female-headed households in Kerala.....	142
6.5	Conclusion.....	148

6.1 Introduction

In the previous chapter, we have seen the socio-economic and demographic characteristics of the female-headed households as compared with the women from their male-headed counterparts. This chapter focuses on the income and asset vulnerabilities of the household headed by women in Kerala; in comparison with women from the male-headed counterparts. There are various measures to empirically test whether female-headed households are more vulnerable than male-headed households as proposed by Cafiero and Vakis, 2006; Calvo and Decon, 2005; Alsop and Heinsohn, 2005. In the light of the above literature, this study analyzes the vulnerability of households in terms of income as well as five types of assets such as psychological, informational, organizational, financial, and human assets.

Descriptive statistics on income, one-way ANOVA, and Regression analysis have been used to test the income differences among male and female-headed households in the study area. The study also has adopted the asset vulnerability framework (Alsop and Heinsohn, 2005) by considering the five types of assets such as psychological assets, informational assets, organizational assets, financial assets, and human assets. To test the extent of vulnerability among factors in the sampled households, the second-order confirmatory factor analysis has also been used.

6.2 The context of vulnerability

The latest from 1990 on words, the feminization of poverty and vulnerability have been discussed among economists (Chant, 2008). There are multiple research on female headship which infer that households headed by women suffer from the burden of poverty and vulnerability in many aspects (Moghadam & Buvinic Gupta, 1997). However, there is no universal definition of the concept of vulnerability even in recent years. Hence, an expert from various disciplines uses diverse methods to serve their purpose and interest. The UNDP defines vulnerability as a human condition or process resulting from physical, social, economic, and environmental factors which determine the likelihood and scale of damage from the impact of a

given hazard (UNDP, 2004). Cafiero and Vakis, 2006 define vulnerability as a source of deprivation which is even interpreted as yet another dimension of poverty. The exposure to downside risk and the inability to prevent, mitigate and cope with its impact decreases the well-being of the household regardless of their current level of material wealth. Ample qualitative and quantitative evidence suggests that relatively poor households in developing countries spend a lot of time and resources on reducing their exposure to such risk through among others and risk-sharing arrangements (Dercon, 2005).

6.3 Vulnerability among female-headed households

In a patriarchal community, losing one's father or male spouse has shown psychological and economic impacts on members of families, especially in the household headed by women. Since the male spouses are considered breadwinners of the family their death or absence immediately brings about the household economic crisis. Literature reports that economic crisis is the crucial problem faced by the FHHs followed by social and emotional (Bharat, 1986).

From the sampled households, the features such as lack of access to human and non-human resources, high dependency burden, economic immobility, cultural norms, and double day burden of the head are critical in drifting the female-headed households to poverty-stricken vulnerability. This situation forced them to resort to different survival strategies to sustain their lives and their dependents. The risk of exposure and the inability to cope with adverse events are the major cause of vulnerability among households headed by women. In this regard, those who are divorced/separated and single, or are staying alone have very few coping strategies and are more vulnerable than other households. The present study operationally defines vulnerability as a defenseless referring to the general frailty or helplessness of people. It is a human condition or process resulting from physical, social, economic, and environmental factors. It also measures the resilience against a shock- the likelihood that a shock will result in a decline in well-being. In the present context, the vulnerability of female-headed households has been examined in terms of their income and various types of assets.

6.3.1 Income vulnerability among sampled households

Table 6.1 *Descriptive Statistics of Monthly Family Income*

Measures	Statistics
Mean	36538.54
Median	30000.0000
Mode	15000.00 ^a
Standard Deviation	31194.7768
Sample Variance	973114100.747
Kurtosis	2.736
Skewness	1.472
Minimum	1400
Maximum	200000

Source: Estimated from Primary data

Table 6.1 explains the monthly household income of the sampled households. Here the mean is greater than the median and the skewness is positive. As per Table 6.1, a higher share of the sampled households comes under the lower-income group. As a result, the majority of the FHHs such as divorced/separated, wives of unemployed, and single come under this category. The income of the sampled household varies between ₹ 1400 to ₹ 200000. The study also found that there is a significant income difference between male and female-headed households in the study area of both Malappuram and Thrissur districts.

Table 6.2 *Results of One-Way ANOVA for Differences in Mean Monthly Family Income*

Social Category	Mean Family Income	SD	Mean Differences from Post Hoc Tests for Multiple Comparison	P-Value	
Hindu	31129.0286	32743.66649	Hindu-Muslim	-6259.16040	0.189
Muslim	37388.1890	28322.94379	Hindu-Christain	-15394.78095*	.001
Christain	46523.8095	29744.18084	Muslim-Christain	-9135.62055***	0.088
ANOVA Results		F Statistics: 7.207		P- Value: .001	

Source: Calculations based on Primary Data

Note: *, **, *** indicate the mean difference is significant at 1%, 5%, 10% levels respectively.

Table 6.2 reports the results of the One-Way ANOVA for testing the differences in the average family income of various religions. The results suggest that there exist differences in the average value of family income across various religions. F statistics indicate that the null hypothesis of no difference between mean values can be rejected at a one percent level. Thus, it can be concluded that the mean values are different for at least two groups. Results of the Post Hoc test show that there exist differences between the mean family income of Hindus and Christian as well as Muslims and Christian. The mean family income of a Christian family is ₹ 46523, which is significantly higher than that of Muslims and Hindus. The mean monthly income of Muslims is ₹ 37388. The mean monthly income of Hindus is only ₹ 31129.

Table 6.3 *Results of Independent Sample t-test for the Differences in Mean Family Income.*

	Mean Family Income.	SD	Results of Independent Sample t-Test		
			Null Hypothesis: Mean1 – Mean 2=0 Alternative Hypothesis: Mean1 – Mean 2≠0		
			If variances are	t-statistics	P- Value
Female headed	31592.6425	30809.36393	Equal	-3.151	0.002
Male headed	41484.4560	30869.09132	Unequal	-3.151	0.002
Mean Difference	-9891.81347*				
	Levene's Test Statistics		F-.095		P-Value -0.758

Source: Authors' calculations based on Primary Data.

Note: Mean Difference is significant at a 1 percent level.

Table 6.3 reports the results of the independent sample t-test for the differences in mean family income. The results show that there is a significant difference between the mean family income of the Male headed households and Female-headed households. The mean family income of the male-headed household is ₹ 41484.4560 while the mean family income of the female-headed household is only ₹ 31592.6425. The mean family income of male-headed households is higher than by ₹ 9891.8135 that of Female-headed households.

a) Determinants of Income: An Econometric Analysis

In this section, an econometric analysis is carried out to examine the determinants of family income. The econometric model is specified as follows.

$$\text{Income} = \beta_0 + \beta_1 \text{Edu} + \beta_2 \text{Reg_Emp} + \beta_3 \text{Migration} + \beta_4 \text{Land} + \beta_5 \text{Earning_members} + \beta_6 \text{Age_Head} + \beta_7 \text{Male_Headed} + U_i$$

In the model income is the dependent variable. Explanatory variables are various socio-economic features of the household and household head. A detailed description of the explanatory variables is provided in Table 6.4. The results indicate that the estimated model is fairly good. The estimated value of adjusted R-squared is 0.48 which indicates that 48 percent of changes in the dependent variable income are explained by various independent variables.

Table 6.4 Results of Regression Analysis for the determinants of Household Income

Variable	Description of Variables	Coefficients	Standard Error	t-statistics	P-Value
Intercept		-36602.1	7323.54	-4.99	8.88275E-07
Education	Education of Head (in years)	6838.34	2816.85	2.42	0.015663185
Regular Employment	'1' if Head is Regularly Employed, otherwise=0, Reference=Unemployed.	24408.28	2870.76	8.50	4.36689E-16
Migration	'1' if the household has a migrant, otherwise=0.	8380.48	1650.76	5.07	6.03923E-07
Land	Size of land in cents	223.94	95.96	2.33	0.020140717
No of earning members	No of earning members	7232.84	2576.69	2.80	0.00525913
Age	Age of head in years	162.74	26.77	6.07	2.9539E-09
Male_Head	'1' if household is male headed, otherwise = '0'.	3017.59	381.09	7.91	2.71099E-14
		R Square: 0.49	Adjusted R Square: 0.48		
		F-Statistics: 53.053	P-Value of 1.78E-52		

Source: Calculations based on Primary Data

Note: *, **, *** denote level of significance at 1%, 5%, 10% levels.

Among the various explanatory variables, education, regular employment, migration, land size, number of earning members, and male-headed have a significant positive impact on the family income. Household income is positively related to the education of the head. The estimated coefficient shows that as education increases by one year, family income increases by ₹ 6838.34. Regular employment of household heads also have a positive impact on income. A regularly employed head's family earns ₹ 24408.28 more income when compared to the family of the unemployed head.

Migration also has a positive effect on the monthly family income. If a member of the household is a migrant, they earn ₹ 8380.48 (see Table No. 6.4) more income when compared to the households without migrants. Likewise, the size of landholding positively influences the family income. Similarly, the number of earning members also have a positive relationship with family income. An additional earning member increases family income by ₹ 7232.84. The study also identified the positive impact of male-headed households on family income. A male-headed household earns more family income (₹ 3017.59) when compared to female-headed households.

6.3.2 Asset-based vulnerabilities of households headed by women

Asset-based approaches to development are rooted in the international poverty alleviation/reduction debate of the 1990s. It is generally concerned with assets and the associated asset accumulation strategies which are closely linked to the concept of capabilities. Thus, assets “are not simply resources that people use to build livelihoods: they give them the capability to be as well as act and transformation of resources” (Bebbington, 1999; Sen, 1997). Generally, an asset is identified as a “stock of financial, human, natural or social resources that can be acquired, developed, improved and transferred across generations. It generates flows or consumption, as well as additional stock” (Ford 2004). In the current poverty-related development debates, the concept of assets or capital endowments includes both tangible and intangible assets. Moster C., 2006 also provides an Asset-based

approach to poverty reduction in a globalized context by employing human, physical, social, financial, and natural capital assets. In the light of the above literature and approaches, the vulnerabilities of a household headed by women have been tested by using the various type of assets such as psychological assets, informational assets, organizational assets, material assets, financial assets, and human assets. This framework has been widely used in many empowerments and asset-based approaches to poverty and vulnerability analysis in recent years. (Alsop and Heinsohn, 2005; Moser; Siegel; Sabates Wheeler & Haddad; CPRC, 2006).

Table 6.5 *Vulnerability framework*

<i>Psychological assets</i>	<i>Personal worries, stress relating to household responsibilities, exclusion, and isolation from self</i>
<i>Informational assets</i>	<i>Frequency of television watching; frequency of newspaper reading; awareness about the community program in the locality, perceived changes in access to information;</i>
<i>Organizational assets</i>	<i>Participation in Panjayath meetings, Participation in Grama sabha, participation in public protest, membership in any Organization, Participation in family, religious and recreational activities.</i>
<i>Material assets</i>	<i>Land ownership; tool ownership; ownership of durable goods; type of housing</i>
<i>Financial assets</i>	<i>Employment history; sources of household income, household expenses, and saving</i>
<i>Human assets</i>	<i>Literacy levels; numeracy levels; health status</i>

Source: Alsop and Heinsohn (2005). Moser; Siegel; Sabates Wheeler & Haddad; CPRC (2006)

Table 6.6 *Asset-related vulnerability of the sampled households in the study area.*

Factors	Heads of household					
	Female-headed			Male headed		
	Mean	SD	Median	Mean	SD	Median
Vulnerably due to lack of Psychological Asset	3.26	1.10	3.333	2.83	1.08	2.666
Vulnerably due to lack of Informational asset	3.20	1.18	3.333	1.94	0.78	2.0000
Vulnerably due to lack of organisational asset	2.98	0.92	3.000	2.55	0.92	2.666
Vulnerably due to lack of Human asset	3.19	1.20	3.333	2.53	1.01	2.666
Vulnerably due to lack of Material asset	3.50	0.94	3.6667	2.53	0.78	3.000
Vulnerably due to lack of Financial asset	3.30	0.96	3.25	2.82	0.81	2.75

Source: Calculations based on Primary Data

H0.1: The Vulnerability due to lack of psychological assets between female-headed households and male-headed households are the same

Table 6.7 *A comparative analysis between female-headed households and male-headed households about their Vulnerability due to lack of psychological asset.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerability due to lack of psychological asset	3.26	1.10	2.83	1.08	3.844	<0.001*

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.7 shows that the extent of vulnerability in female-headed households is higher due to a lack of psychological assets as compared with the women from their male-headed counterparts. In this case, the mean score of female-headed households is 3.26 with a standard deviation of 1.10, but the mean score is only about 2.83 with a standard deviation of 1.08 for male-headed households. The difference is statistically significant at 0.01 level ($t = 3.844$, $p < 0.001$, significant at 0.01 percent level).

In a patriarchal community, losing a male spouse can cause several psychological or emotional problems for members of families as well as a household headed by women. Since the male spouse are considered as breadwinners of the family, their death or absence immediately brings about feelings of anger, anxiety, fear, and some kinds of personality disorders among them. (Kotwal & Prabhakar, 2009). In this regard, they often face various issues such as isolation, stress, a feeling of rootlessness, and lack of identity after divorce or widowhood. The biological, sexual, as well as emotional needs and desires, give her an illusory experience and society refused to understand her mental condition for what she is fighting for. From the study area, FHHs reported their psychological issues in terms of the feeling of loneliness, insecurity, stress, worthlessness, depression, anxiety, constant fear, and feeling of struggling to meet the household affairs.

H0.1: The vulnerability due to lack of informational assets between female-headed households and male-headed households are the same.

Table 6.8 *A comparative analysis between female-headed households and male-headed households concerning their vulnerability due to lack of informational assets.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerably due to lack of informational assets	3.20	1.18	1.94	0.78	12.269	<0.001*

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.8 shows the vulnerability of the female-headed households due to the lack of informational assets compared to that of women from their male-headed counterparts. In this study, the informational assets have been assorted as access to newspapers, television, and the awareness of the respondent (women) about the various programs in the locality. Due to the factors such as lack of education, low aspiration, higher household responsibilities, and lack of income, a higher share of the female-headed households are deprived in terms of informational assets as compared to the women from their male-headed counterparts.

From Table 6.8, the mean score of female-headed households in lack of informational assets are 3.20 with a standard deviation of 1.18, which is higher than the mean score of the male-headed households (1.94) with a standard deviation of 0.78. The difference is statistically significant at 0.01 level ($t = 12.269$, $p < 0.001$, significant at 0.01 percent level).

H0.1: The vulnerability due to lack of organizational assets between female and male-headed households are the same

Table 6.9 *A comparative analysis between female-headed households and male-headed households concerning their vulnerability due to lack of organizational Assets.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerability due to lack of organizational Assets.	2.55	0.92	2.98	0.92	4.534	<0.001*

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.9 shows that both male and female-headed households are not highly vulnerable concerning organizational assets. For this study organizational assets have been classified under participation in Panjayath meetings, Participation in Grama sabha, participation in public protest, membership in any Organization, Participation in family, religious and recreational activities. Here the mean score of male-headed households is (2.98) comparatively higher than the mean score of the female-headed households (2.55) which reflects the vulnerability of MHHs in organizational assets. The difference is statistically significant at 0.01 level ($t = 4.534$, $p < 0.001$, significant at 0.01 percent level).

It is generally reported that as household income increases there is a tendency among women to deviate from community services. As a result, the majority of the women from male-headed households are not engaged in any activities of the community such as participation in panchayath/Grama sabha meetings and public protests, etc, which is also reflected in the study area. Cultural factors also play a major role in it.

Low-income groups, especially those who are getting support from the community in the form of a cash gift, free labour, and supplementary food are constantly engaged in the activity of the community as compared with the high-income group in the study area. In this regard, FHH's participation in community activities is comparatively better as they are getting formal and informal support from the community. Even though they get involved in different activities of the community, their social interactions and relationships are limited by various constraints. Likewise, their participation in family function and recreational activities are also very much limited. It is mainly because of two reasons. The first vital factor is that FHHs do not have enough time to participate in social activities due to household responsibilities as breadwinners and a mother. Another factor is associated with the cultural /traditional barriers as well as the socio-economic taboo towards them.

H0.1: The vulnerability due to lack of human assets between female-headed households and male-headed households are the same

Table 6.10 *A comparative analysis between female-headed households and male-headed households about their vulnerability due to lack of Human Assets.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerably due to lack of Human Assets	3.19	1.20	2.53	1.01	5.964	<0.001*

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.10 shows the higher vulnerability of female-headed households in human assets such as health, education, and occupation as compared with the women from their male-headed counterparts. In this case, the mean score of female-headed households is 3.19 with a standard deviation of 1.20, but the mean score of male-headed households is 2.53 with a standard deviation of 1.01. This reflects the vulnerability of FHHs due to the lack of human assets. The difference is statistically significant at 0.01 level ($t = 5.964$, $p < 0.001$, significant at 0.01 percent level).

As described above the vulnerability of FHHs in human assets is associated with a lack of education, health, and low access to the job market. Due to less education, they are mostly engaged in low-wage jobs that could lead to a lower standard of living (Desai and Ahmad, 1998). Furthermore, health is a worrying subject for women outside the marital boundary. In the study area, the health status of FHHs are worse as the majority of them are old and are victims of several issues such as chronic diseases, neurological problem, asthma, and other joint and physical pain.

H0.1: The vulnerability due to lack of material assets between female-headed households and male-headed households are the same.

Table 6.11 *A comparative analysis between female-headed households and male-headed households about their vulnerability due to lack of material assets.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerably due to lack of material assets	3.50	0.94	2.53	0.78	4.333	<0.001*

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.11, the mean score of FHHs is very high as compared with the means score of MHHs. This shows the vulnerability of female-headed households with regards to lack of material assets as compared with the women from their male-headed counterparts. The material assets have been classified under type of house, ownership of consumer durables, and ownership of land and tools. From the table, the mean score of female-headed households is 3.50 with a standard deviation of 0.94, which is higher than the mean score of male-headed households (2.53) with a standard deviation of 0.78. The difference is statistically significant at 0.01 level ($t = 4.333$, $p < 0.001$, significant at 0.01 percent level).

There are various reports explained the material vulnerability of female-headed households (Census, 2011; NFHS-4, Economic Review, 2020,). It was observed in the survey that the percentage of female-headed households with outhouses is relatively higher than the corresponding percent of their male-headed counterparts. Likewise, the distribution of female heads living in Kutcha houses is four times higher than their male-headed counterparts. Apart from that their

deprivation is also associated with a lack of ownership of consumer durables and lack of ownership of land & tools.

H0.1: The vulnerability due to lack of financial assets between female-headed households and male-headed households are the same

Table 6.12 *A comparative analysis between female-headed households and male-headed households about their vulnerability due to lack of financial assets.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Vulnerability due to lack of financial assets	3.30	0.96	2.82	0.81	5.275	<0.001*

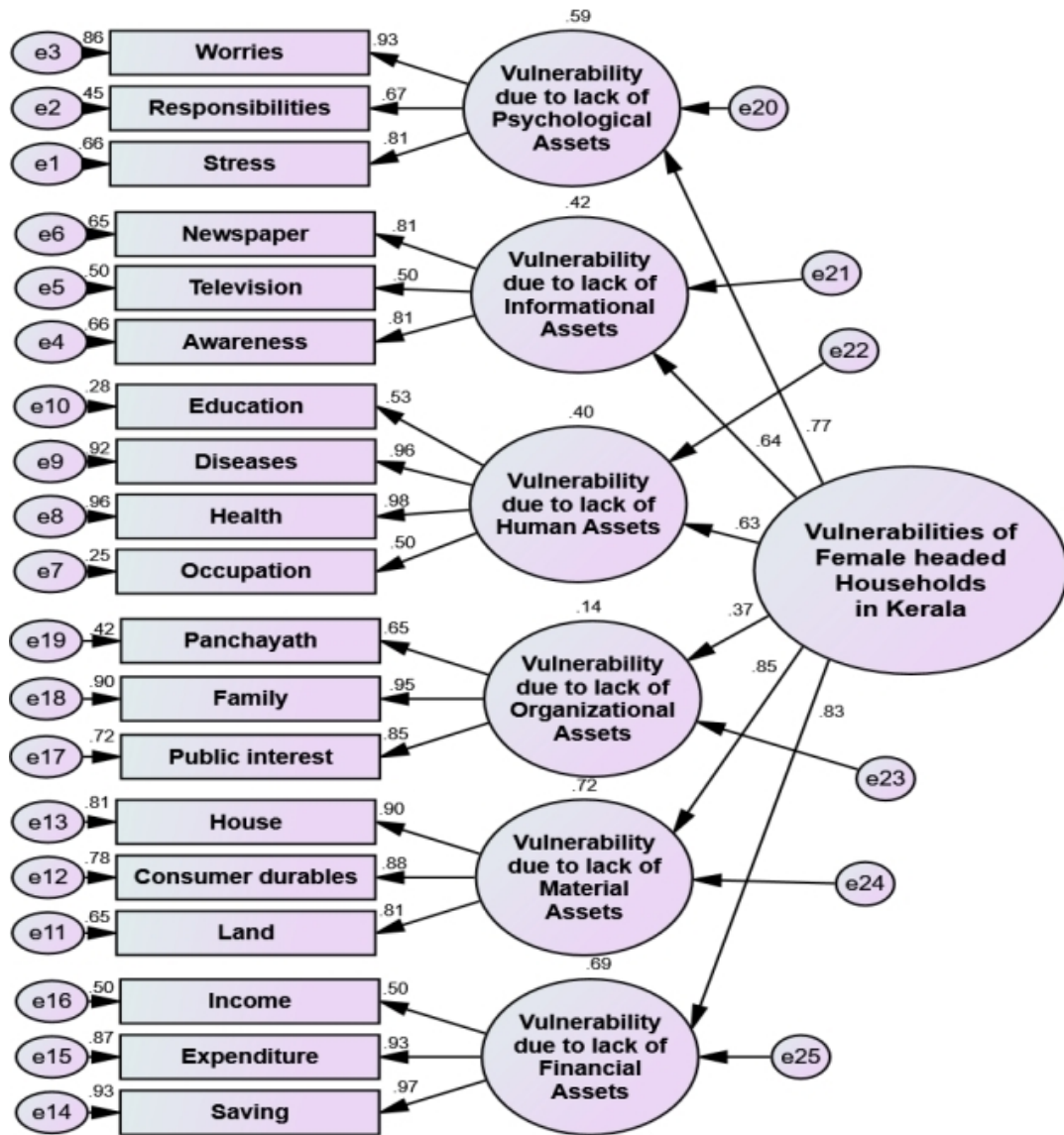
Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Table 6.12 shows that female-headed households are more vulnerable due to a lack of financial assets compared to male-headed households. It is mainly because of their low level of education and their involvement in informal sector employment. From the table, the mean score of female-headed households is 3.30 with a standard deviation of 0.96 but the mean score is only 2.82 with a standard deviation of 0.81 for male-headed households. The difference is statistically significant at 0.01 level ($t = 5.275$, $p < 0.001$, significant at 0.01 percent level).

6.4 Factors of vulnerability among female-headed households in Kerala

Figure 6.1: *Second order CFA model examines the influencing factors of vulnerability among female-headed households in Kerala.*



Source: Calculations based on Primary Data

Table 6.13: *Fit indices of the Second order CFA model which examines the influencing factors of vulnerability among female-headed households*

Model	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	3.21	0.000	0.985	0.991	0.998	0.028
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Calculations based on primary Data

Table 6.13 shows that the chi-square to the degrees of freedom ratio is 3.21 which is very well under the suggested maximum value. The other fit indices such as RMSEA, GFI, AGFI, and CFI come under the recommended threshold levels. Thus, it can be inferred that the model is good in fitness.

Table 6.14: *Influencing factors of vulnerability among female-headed households in Kerala*

Sl. No.	Constructs and path index	Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Psychological Assets ← Vulnerability of female-headed households in Kerala	0.77	---	III
2	Informational Assets ← Vulnerability of female-headed households in Kerala	0.64	<0.001*	IV
3	Human Assets ← Vulnerability of female-headed households in Kerala	0.63	<0.001*	V
4	Organisational Assets ← Vulnerability of female-headed households in Kerala	0.37	<0.001*	VI
5	Material Assets ← Vulnerability of female-headed households in Kerala	0.85	<0.001*	I
6	Financial Assets ← Vulnerability of female-headed households in Kerala	0.83	<0.001*	II

Source: Calculations based on primary Data

* indicates significant at 1% level

Based on the Standardised beta coefficient, Material assets (0.85) are the most influencing factor of vulnerability among the female-headed households in Kerala, followed by Financial Assets (0.83), Psychological Assets (0.77), Informational Assets (0.64), Human Assets (0.63) and Organisational Assets (0.37). Several studies are supported by this finding (Kotwal and Prabhakar, 2009; Unisia and Datta, 2005; Chand, 2003; Bharath, 1986).

Table 6.15: *Influencing factors of lack of psychological assets among female-headed households in Kerala*

Sl. No.	Constructs and path index		Standardized Beta coefficient	P-value	Ranks based on beta value
1	Worries	← Vulnerability of due to lack of psychological assets	0.93	---	I
2	Responsibilities	← Vulnerability of due to lack of psychological assets	0.67	<0.001*	III
3	Stress level	← Vulnerability of due to lack of psychological assets	0.81	<0.001*	II

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Among the factors influencing psychological assets, based on the Standardised beta coefficient, personal worries due to the absence of their male spouse (0.93) are the most important influencing factor of vulnerability among the female-headed households in Kerala, followed by stress (0.81), and heavy responsibilities (0.67).

Table 6.16 *Influencing factors of lack of informational assets among female-headed households in Kerala*

Sl. No.	Constructs and path index		Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Newspaper reading	← Vulnerability due to lack of informational assets	0.81	---	I
2	Watching T.V	← Vulnerability due to lack of informational assets	0.50	<0.001*	II
3	Awareness about the program	← Vulnerability of due to lack of informational assets	0.81	<0.001*	I

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Among the factors influencing lack of informational assets, based on the Standardised beta coefficient, lack of newspaper reading and lack of awareness about various programs in the community (0.81) are the most influencing factor of vulnerability among the female-headed households in Kerala. Lack of education and time constraints due to higher household responsibilities are the major reasons behind it.

Table 6.17 *Influencing factors of lack of Human assets among female-headed households in Kerala*

Sl. No.	Constructs and path index		Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Lack of education	← Vulnerability of due to lack of human assets	0.53	---	III
2	Diseases	← Vulnerability of due to lack of human assets	0.96	<0.001*	II
3	Poor health	← Vulnerability of due to lack of human assets	0.98	<0.001*	I
4	Lack of good Occupation	← Vulnerability of due to lack of human assets	0.50	<0.001*	IV

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Based on the Standardized beta coefficient, among the factors influencing the lack of human assets, the most influencing factor is poor health due to old age (0.98), followed by chronic diseases (0.96), and lack of education (0.53) and occupation (0.50). Studies also report that health is a worrying subject for women outside marital boundaries (Sidloyi, S., 2016; Sidloyi, S. S., 2010; Unisa, S., & Datta, N., 2005). Moreover, cultural factors such as household investments less in girl's schooling and social stigma against labour outside (Goldin, 1994) also lead to a lack of education and occupation among FHHs.

Table 6.18 *Influencing factors of lack of organizational assets among female-headed households in Kerala*

Sl. No.	Constructs and path index		Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Participation in Panjayath meeting	Vulnerability of due to ← lack of organizational assets	0.65	---	III
2	Family /religious/recreational	Vulnerability of due to ← lack of organizational assets	0.95	<0.001*	I
3	Public protest	Vulnerability of due to ← lack of organizational assets	0.85	<0.001*	II

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Among the factors influencing the lack of organizational assets, based on the Standardised beta coefficient, participation in family and recreational functions (0.95) are the most important influencing factor of vulnerability among the female-headed households in the study area followed by participation in public protest (0.85) and Panjayath meeting (0.65). Studies also reported that FHH's social interaction and relationship with family are limited by various constraints. The first vital factor is that they do not have enough time to participate in social activities due to higher household responsibilities as breadwinners and a mother. Furthermore, they often lack support

from both social networks and ex-partner's relatives (Chand, 2008; Bibars, 2001) as well as from their own families and communities. Thus, they are vulnerable in terms of organizational assets such as participation in family and community activities.

Table 6.19 *Influencing factors of lack of material assets among female-headed households in Kerala*

Sl. No.	Constructs and path index	Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Ownership of house ← Vulnerability due to lack of material assets	0.90	---	I
2	Ownership of consumer durables ← Vulnerability due to lack of material assets	0.88	<0.001*	II
3	Ownership of land ← Vulnerability of due to lack of material assets	0.81	<0.001*	III

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

Among the factors influencing the vulnerability of female-headed households in Kerala, lack of material assets is the most influencing factor of vulnerability. Among these FHHs are more vulnerable in terms of ownership of the house (0.90) followed by ownership of consumer durables (0.88) and ownership of land (0.81).

Table 6.20 *Influencing factors of lack of financial assets among female-headed households in Kerala*

Sl. No.	Constructs and path index	Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Family income ← Vulnerability of due to lack of financial assets	0.50	---	III
2	Expenditure ← Vulnerability of due to lack of financial assets	0.93	<0.001*	II
3	Saving ← Vulnerability of due to lack of financial assets	0.97	<0.001*	I

Source: Calculations based on Primary Data

*Significant at 0.01 percent level

From Table 6.20, among the factors influencing the lack of financial assets, lack of savings (0.97) is the most influencing factor of vulnerability among the female-headed households in Kerala. It is mainly due to their less access to labour market. In labour market, FHHs are deprived in terms of differential wage rates as well as deferential access to wage employment (Collier, 1994). Cultural factors such as less investment in girl's education, socio-economic stigma against labour outside, and religious barriers against women (Dreze and Sen, 1995; Goldin, 1994) are often led to a lack of saving and income among women, especially in the context of FHHs. Thereby they are constrained to meet the educational and financial expenses of their children without the support of their male partners also added to their vulnerability.

6.5 Conclusion

This chapter covers the vulnerability of the sampled households in terms of income and various types of assets including psychological, informational, organizational, material, financial, and human assets. The study outline that income is a significant factor in testing the vulnerability of female-headed households as it plays a major role in determining the socio-economic characteristics of the households. The other socio-economic correlates such as education, regular employment, migration, number of earning members in the family, and male headship also have a significant positive impact on the determination of income among the households.

The study also found that there is an unequal distribution of income between male and female-headed households in the study area. As a result, a higher proportion of the female-headed households such as single, divorced/separated, wives of unemployed come up under the lowest income group. The Post Hoc test of ANOVA reveals that across religions the mean income of Christian households is significantly higher than that of Muslims and Hindus.

Besides, the unequal distribution of income between male and female-headed households, the study infers that FHHs are vulnerable in terms of various types of

assets such as psychological, informational, organizational material, financial and human. Among these, material assets (0.85) is the most important influencing factor of vulnerability among them. Followed by Financial Assets (0.83), Psychological Assets (0.77), Informational Assets (0.64), Human Assets (0.63) and Organizational Assets (0.37).

The second-order CFA model explains that among material assets, FHHs are more vulnerable in terms of ownership of the house. In the case of financial assets, their vulnerability is mostly associated with a lack of saving due to a lack of income. Between psychological assets, their worries are more crucial. About informational assets, they are more vulnerable in terms of lack of awareness about any program in the locality. Regarding human assets, poor health followed by chronic diseases are the major cause of their vulnerability. When it comes to organizational assets, they are deprived of participation in family and other recreational activities associated with it.

CHAPTER 7

EMPOWERMENT OF HOUSEHOLDS HEADED BY WOMEN IN KERALA

CONTENTS

7.1	Introduction	152
7.2	Women Empowerment.....	152
7.3	Women's Empowerment Index framework.....	152
7.4	Conclusion.....	169

7.1 Introduction

This chapter provides us with an overview of the empowerment /outcome of the sampled respondents. Here the researcher examines the positive aspects of female headship by employing a context-specific composite index developed by Oxfam and compares these features with the women from their male-headed counterparts. Oxfam is a large-scale development project, with the objective of better capturing and communicating the impact of its program and promoting evidence-based learning. Effectiveness reviews evaluate Oxfam's work across six thematic areas, including Women's Empowerment. At this juncture, women's empowerment recognizes the power implied in each woman at the personal, relational and environmental levels.

7.2 Women empowerment

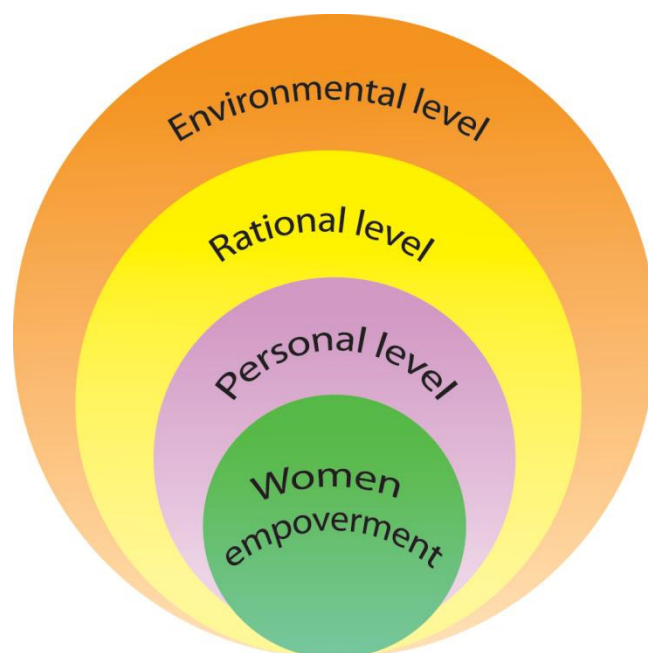
Empowering women and supporting gender equality is the stated aim of many nations. It is an area of focus that is also expressed in the Sustainable Development Goals (SDGs). Women's empowerment is a multidimensional concept, that operates at different and interlinked levels, based on an analysis of power relations. Several efforts have been made in recent years to develop comprehensive frameworks delineating the various dimensions of women's empowerment (Malhotra et al., 2002; Ibrahim & Alkire, 2007). Vene Klasen and Miller (2002) define women's empowerment as a process whereby the lives of women and girls are transformed from a situation where they have limited power to one where their power is enhanced. To measure and assess the extent of women's empowerment, Oxfam developed a measurement tool based on a composite index, which recognizes three levels where change can take place: personal, relational, and environmental.

7.3 Women's Empowerment Index framework

Oxfam recognizes empowerment as a multi-dimensional concept that is context-specific, i.e., the behaviors or attributes that might signify empowerment in one context may have different meanings elsewhere. To measure women's

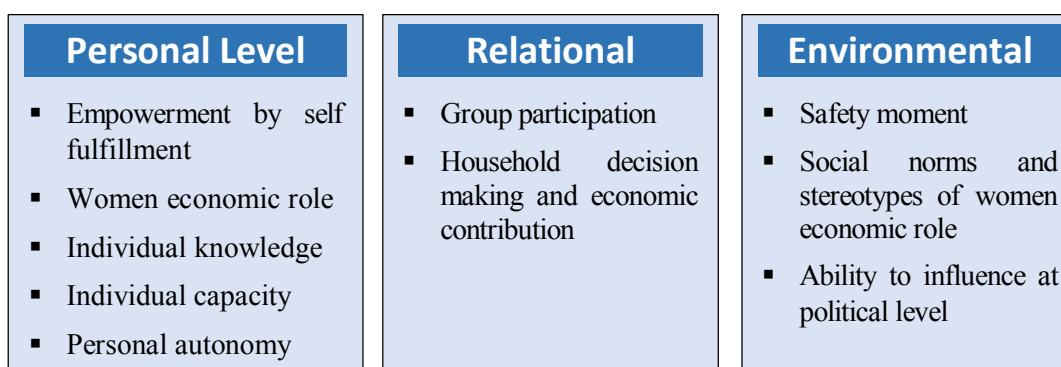
empowerment, Oxfam has developed a framework categorized into three levels where change can take place: personal, relational, and environmental. These indicators are intended to represent the characteristics of an ‘empowered woman’ in the socio-economic context under analysis. By adopting the same methodology, in the present study, empowerment has been measured at the individual level to examine changes in the power relation at the personal, relational and environmental levels.

Figure 7.1 *Women’s Empowerment Index framework*



Source: Oxfam GB empowerment framework, 2017

Changes at a personal level refer to changes taking place within the person – changes in how the person sees herself, how she considers her and other women’s role in society, their economic role, and their confidence in deciding and taking actions concerning themselves. Changes at the relational level refer to changes in the relationships and power relations within the woman’s surrounding network. This includes, for example, changes within the household, the community, markets, and local authorities. Finally, changes at the environmental level take place in the broader context. These can be informal changes, such as social norms, attitudes, and the beliefs of wider society; as well as formal changes in the political and legislative framework.

Figure 7.2 Empowerment framework with characteristics

Source: Oxfam GB empowerment framework, 2017

Table 7.1 Women Empowerment in FHHs comparison with women from MHHs.

Factors	Heads of household					
	Female-headed			Male headed		
	Mean	SD	Median	Mean	SD	Median
Personal level indicators						
Empowerment by self-fulfillment	3.33	0.31	3.33	3.45	0.32	3.33
Women economic role	3.39	0.55	3.00	3.60	0.63	3.33
Individual knowledge	3.35	0.93	3.20	4.08	0.62	4.00
Individual capacity	2.92	0.97	3.00	3.17	0.98	3.00
Personal autonomy	3.46	0.82	3.50	3.54	0.80	3.50
Relational level indicators						
Group participation	2.91	0.71	3.00	3.13	0.71	3.00
Household decision making and economic contribution	3.76	0.94	3.75	3.35	0.46	3.25
Environmental indicator						
	2.80	0.94	2.33	2.87	0.78	3.00

Source: Primary survey, 2021

7.3.1 Personal level indicators

Changes at a personal level refer to changes taking place within the person – changes in how the person sees herself, how she considers her and other women's role in society; their economic role, and confidence in deciding and taking actions concerning themselves. The following item has been incorporated to explain women's empowerment at the personal level.

7.3.1.1 Self-fulfillment

Self-fulfillment has been defined as the feeling of being happy and satisfied. It often reflects the attitude that the respondent towards herself.

The enumerator reads the statements reported in Table 7.2. The respondent has to state to what extent she agrees or disagrees with each statement using a Likert scale ranging from strongly disagree to strongly agree. The indicator is then constructed by calculating the average of the respondent indicating Self-fulfillment.

Table 7.2 *Self-fulfillment of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
I am very much important in this family	██████████
I am very much satisfied with my life	██████████
I am courageously handling every situation	██████████
I am trying to be happy most of the time	██████████
My life is great	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by self-fulfillment between female-headed households and male-headed households are the same

Table 7.3 *A comparative analysis between female-headed households and male-headed households concerning their empowerment by self-fulfillment.*

Factor	Heads of household				t value	P value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by self fulfillment	3.33	0.31	3.45	0.32	-3.705	<0.001*

Source: Calculations based on Primary Data

Table 7.3 shows the comparative analysis between female and male-headed households with regards to their empowerment by self-fulfillment. From the table, the

mean score of male-headed households is 3.45 with a standard deviation of 0.32 which is comparatively higher than the mean score of female-headed households 3.33 with a standard deviation of 0.31. The difference is statistically significant at 0.01 level ($t = -3.705$, $p < 0.001$, significant at 0.01 percent level). Therefore, the hypothesis that empowerment by self-fulfillment between female and male-headed households are the same has been rejected. This implies that there exist significant differences among the self-fulfillment indicators between male and female-headed households.

7.3.1.2 Opinion on women's economic role and attitude toward girls' education

Women's economic role is an important determinant of empowerment among them. To understand their level of empowerment, their opinion on economic roles and attitudes toward girls' education was also addressed by the following statements.

Table 7.4 *Opinion on women's economic role of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
It is very important for spending the education of girl children	██████████
Women can do a better job than men	██████████
A good marriage is more important than a good job	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by women's economic role between female-headed households and male-headed households are the same

Table 7.5 *A comparative analysis between female-headed households and male-headed households concerning their empowerment by women's economic role.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment of women's economic role	3.39	0.55	3.60	0.63	-3.541	<0.001*

Source: Calculations based on Primary Data

Table 7.5 shows the comparative analysis between female and male-headed households with regards to their empowerment by women's economic role. From the table, the mean score of a male-headed household is 3.60 with a standard deviation of 0.63 which is comparatively higher than the mean score of female-headed households 3.39 with a standard deviation of 0.55. The difference is statistically significant at .01 percent ($t = -3.541$, $p < 0.001$, significant at 0.01 percent level). Therefore, the hypothesis 'the empowerment by women's economic role between female and male-headed households is same' has been rejected. Thus, there is a significant difference between economic roles among male and female-headed households in the study area.

Due to the higher education of women among MHHs, they are more advantaged in their economic role as well as an attitude toward girls' education. Whereas, in FHHs, even though having high aspirations they are not able to spend on girls' education. It is mainly because of their higher economic constraints along with their absence of male earning members in their households. Thus, it is often reported that FHHs are failed to meet the financial as well as educational requirements of their children (Barros et al., 1997; Handa, 1996).

7.3.1.3 Individual knowledge

This indicator tests whether a woman has (or has acquired) knowledge that is considered important for empowerment. Here, women's empowerment was deemed to be associated with knowledge about accessing the judicial system. This evaluation assessed women's knowledge by asking each respondent several questions concerning the rights and laws embodied in the judicial system. It helps full to know whether a woman possesses particular knowledge in this regard.

Table 7.6 *Individual knowledge of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
	Women have the right to ask for alimony from their spouse
Women have the right to request a reduction of court fee	██████████
Women have the right to become a good leader as men	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by individual knowledge between female-headed households and male-headed households are the same.

Table 7.7 *A comparative analysis between female-headed households and male-headed households concerning their empowerment by individual knowledge.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by individual knowledge	3.35	0.93	4.08	0.62	-9.020	<0.001*

Source: Calculations based on Primary Data

Table 7.7 shows the comparative analysis between female and male-headed households with regards to their empowerment by individual knowledge. From the table, the mean score of a male-headed household is 4.08 with a standard deviation of 0.62 which is comparatively higher than the mean score of female-headed households 3.35 with a standard deviation of 0.93. The difference is statistically significant at 0.01 percent ($t = -9.020$ $p < 0.001$, significant at 0.01 percent level). Therefore, the hypothesis that empowerment by individual knowledge between female and male-headed households is the same has been rejected. This means empowerment by individual knowledge among MHHs is comparatively higher than that of FHHs.

7.3.1.4 Individual capacity

This indicator is directly linked to individual knowledge presented in the previous point. While ‘individual knowledge’ investigates whether a woman possesses knowledge of a particular topic, individual capacity investigates, to what extent this knowledge has been applied. Distinguishing between the possession of knowledge and its application has particular importance, as it allows an investigation of whether knowledge is a constraint for implementing certain practices or if other constraints are affecting this choice. For example, a woman might know laws and the juridical system, but she might face other constraints that prevent her from demanding her rights.

Table 7.8 *Individual capacity of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
I'm willing to support my family economically	██████████
I can provide all types of moral support if my family faces an adverse situation	██████████
I can help my family/relatives if they face legal action	██████████
I Can manage many things in my family	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by individual capacity between female-headed households and male-headed households are the same

Table 7.9 *A comparative analysis between female-headed households and male-headed households about their empowerment by individual capacity*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by individual capacity	2.92	0.97	3.17	0.98	-2.513	0.012*

Source: Calculations based on Primary survey

Table 7.9 shows the comparative analysis between female and male-headed households with regards to their empowerment by individual capacity. From the table, the mean score of a male-headed household is 3.17 with a standard deviation of 0.98 which is comparatively higher than the mean score of female-headed households 2.92 with a standard deviation of 0.97. The difference is statistically significant at 5 percent ($t = -2.513$ $p < 0.05$, (0.012)). Therefore, the hypothesis that ‘empowerment by individual capacity between female and male-headed households are same has been rejected’. This implies that the individual capacity of women in male-headed households is comparatively better as they have sound education and better economic opportunities. Moreover, women from male-headed households often have care and support from their spouses which often improves their capacity than females heading their households.

7.3.1.5 Personal autonomy

Personal autonomy is the capacity to decide for oneself and pursue a course of action in one’s life, often regardless of any particular moral content. This indicator attempts to measure the level of autonomy that a woman has to decide on an action and carry it out independently.

Table 7.10 *Personal autonomy of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
I feel I am independent in my family to take action regardless of any particular moral content	■
I have the freedom to spend income for my purpose	■
I can personally travel to visit relatives outside	■
I have accomplished many things in my life.	■

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by personal autonomy between female-headed households and male-headed households are the same

Table 7.11 *A comparative analysis between female-headed households and male-headed households about their empowerment by personal autonomy*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by personal autonomy	3.46	0.82	3.54	0.80	0.910	0.363

NS denotes Not-Significant; Source: Primary Data

From Table 7.11, the mean score of female-headed households is 3.46 with a standard deviation of 0.82. Whereas, the mean score of male-headed households is 3.54 with a standard deviation of 0.80. There is a slight variation that can be seen in these mean scores, but the difference is statistically not significant ($t = 0.910$, $p > 0.05$ (0.363)). It indicates that there is no significant difference between female-headed households and male-headed households in their empowerment by personal autonomy. Therefore the hypothesis that empowerment by personal autonomy between female and male-headed households is the same has been accepted.

7.3.2 Relational level indicators

Changes at the relational level refer to changes in the relationships and power relations within the woman’s surrounding network. This includes, for example, changes within the household, the community, markets, and local authorities. The following item has been incorporated to explain women's empowerment at the relational level.

7.3.2.1 Group participation

This indicator measures whether a woman participates in any community group or family, religious and recreational activities. Group membership has been widely considered to be an empowering factor as it provides a major source of social networking and social capital (Alkire et al., 2013).

Table 7.12 *Group participation of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
	Participation in recreational activities
Participation in family functions, and visiting relatives	██████████
Participation in Panjayath/Grama saba Meeting	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by group participation between female-headed households and male-headed households are the same

Table 7.13 *A comparative analysis between female-headed households and male-headed households concerning their empowerment by group participation.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by group participation	2.91	0.71	3.13	0.71	-2.962	<0.001

Source: Calculations based on Primary Data

Table 7.13 shows the comparative analysis between female and male-headed households with regards to their empowerment by group participation. From the table, the mean score of a male-headed household is 3.13 with a standard deviation of 0.71 which is comparatively higher than the mean score of female-headed households 2.91 with a standard deviation of 0.71. The difference is statistically significant at .01 percent ($t = -2.962$, $p < 0.001$, significant at 0.01 percent level). Therefore, the hypothesis ‘the empowerment by group participation’ between female and male-headed households are the same has been rejected. In this regard, the participation of FHHs in family functions, recreational activities, and religious gatherings is considerably lower than that of the women from their male-headed households.

7.3.2.2 Household decision-making and economic contribution.

This indicator aims to measure the level of women’s involvement in household decision-making in the study area. Here the respondent is asked to elucidate to what extent she has control concerning a list of activities within the household. These are usually divided into the categories such as decisions on minor household affairs, decisions on major household affairs, and control over all household affairs, which are listed in the following table.

Table 7.14 *Household decision-making and economic contribution of the respondents*

How much control do you have in making a personal decision in the following	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
Control over minor household affairs	██████████
Control over major household affairs	██████████
Control over all household affairs	██████████
Out of total income, my contributions are very large	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by household decision making between female-headed households and male-headed households are the same

Table 7.15 *A comparative analysis between female-headed households and male-headed households about their empowerment by household decision making*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by household decision making	3.76	0.94	3.35	0.46	5.358	<0.001*

Source: Calculations based on Primary Data

Table 7.15 shows the comparative analysis between male and female-headed households with regards to their empowerment by household decision-making. The table explains that women who are household heads may be more autonomous and

have more control over household decision-making by their position than women who are not household heads (male-headed). Here, the construct decision making has been classified under control over minor household affairs such as the purchase of cooking utensils, what food to buy and consume, visiting family and relatives, children's education, health and well being, and major household affairs such as the purchase of furniture, what to give relatives as a gift, purchase of land, transfer of property, the marriage of children, buying ornaments, etc. In MHHs, women reported that the decision-making and autonomy are comparatively lower as a majority of the decisions are taken by their spouses alone.

In this case, the mean score of female-headed households with regards to household decision making is 3.76 with a standard deviation of 0.94 but the mean score is 3.35 with a standard deviation of 0.46 for male-headed households. The difference is statistically significant at 0.01 level ($t=5.358$, $p < 0.001$, significant at 0.01 percent level). Therefore the hypothesis 'the empowerment by household decision making in between female and male-headed households are same' has been rejected. This implies, that FHHs have more decision-making power as compared with the women from their male-headed counterparts.

7.3.3 Environmental level indicators

Finally, changes at the **environmental level** take place in the broader context. These can be informal changes, such as social norms, attitudes, and the beliefs of wider society, as well as formal changes in the political and legislative framework. Environmental level indicators reflect the higher-order level of women's empowerment. The following variables are used to test the empowerment of the respondent at the environmental level.

- 1) *Safety of movement*: This indicator aims to measure the level of the perceived safety of movement outside the household.
- 2) *Social norms and stereotypes of women's economic role*: This indicator aims to measure the social norms and stereotypes around women's economic roles in the communities in which they live.

- 3) *Ability to influence at the political level*: The ability to influence at the political level is the higher-order level of environmental indicator which is also reflected in women's empowerment.

Table 7.16 *Environmental level indicators of the respondents*

To what extent do you agree or disagree with the following statement	Strongly agree-5, Agree-4, Neutral-3 Disagree-2 Strongly disagree-1
	Safety of moment.
I feel safe walking alone in my village	██████████
Social norms and stereotypes of women's economic role.	██████████
Women can be as good leaders as men	██████████
Ability to influence at the political level.	██████████
I have a sound political view and awareness	██████████

Source: Oxfam GB empowerment framework, 2017

H0.1: The empowerment by an environmental indicator between female-headed households and male-headed households are the same

Table 7.17: *A comparative analysis between female-headed households and male-headed households about their empowerment by environmental indicators.*

Factor	Heads of household				t-value	P-value
	Female-headed		Male headed			
	Mean	SD	Mean	SD		
Empowerment by environmental indicator	2.80	0.94	2.87	0.78	-1.613	<0.108

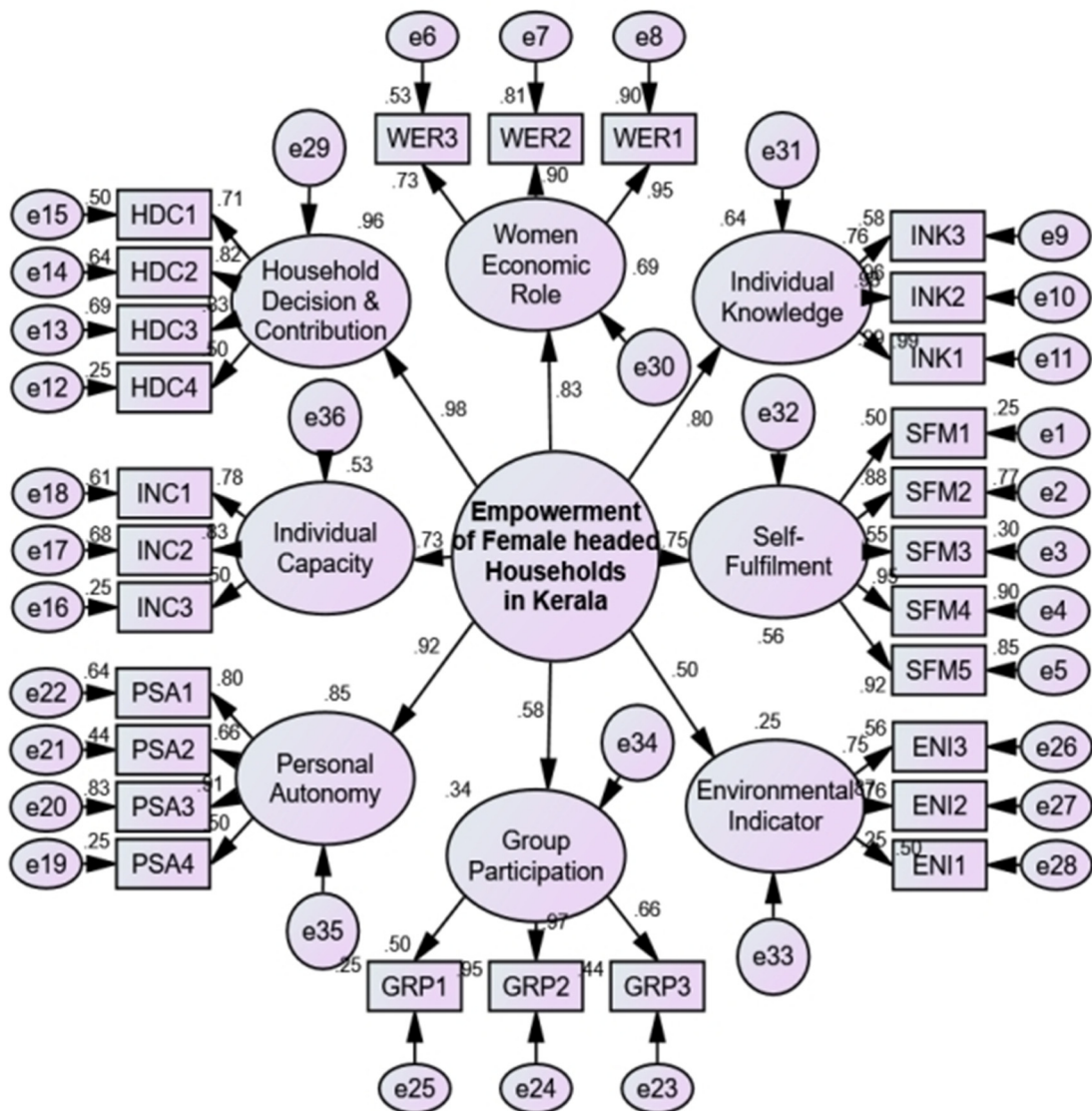
Source: Calculations based on Primary Data

Table 7.17 explains the comparative analysis between female and male-headed households with regards to their empowerment by environmental indicators.

From the table, the mean score of male-headed households is 2.87 with a standard deviation of 0.78 which is slightly higher than the mean score of female-headed households 2.80 with a standard deviation of 0.94. However this relationship are not statistically significant ($t=-1.613$, $P>0.05$, 0.108) . Therefore,

the hypothesis ‘that the empowerment by environmental indicators between female and male-headed households are the same has been accepted. This implies that environmental level indicators are the higher-order empowerment, at this level women from both households are not highly empowered especially in the case of the safety of moment, social norms and stereotypes of women's economic role, and ability to influence the political level. It is mainly because of the socio-cultural taboos against women and the element of patriarchy in the Kerala context.

Figure 7.3 *Second order CFA model which examines the influencing factors of empowerment among female-headed households in Kerala*



Source: Calculations based on Primary Data

Table 7.18 *Influencing factors of empowerment among female-headed households in Kerala*

Sl. No.	Constructs and path index		Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Empowerment by self-fulfillment	← Empowerment of female-headed households in Kerala	0.75	---	V
2	Women economic role	← Empowerment of female-headed households in Kerala	0.83	<0.001*	III
3	Individual knowledge	← Empowerment of female-headed households in Kerala	0.80	<0.001*	IV
4	Individual capacity	← Empowerment of female-headed households in Kerala	0.73	<0.001*	VI
5	Personal autonomy	← Empowerment of female-headed households in Kerala	0.92	<0.001*	II
6	Group participation	← Empowerment of female-headed households in Kerala	0.58	<0.001*	VII
7	Household decision making and economic contribution	← Empowerment of female-headed households in Kerala	0.98	<0.001*	I
8	Environmental level indicators	← Empowerment of female-headed households in Kerala	0.50	<0.001*	VIII

Source: Calculations based on Primary Data

* indicates significant at 1% level

Based on the Standardised beta coefficient, Female-headed households are more empowered in household decision making and economic contribution (0.98) followed by personal autonomy (0.92), women's economic role (0.83), individual knowledge (0.80), Self full fulfillment (0.75), individual capacity (0.73), Group participation (0.58), and environmental level indicators (0.50).

Table 7.19 *Most influencing factors among the empowerment indicators of female-headed households in Kerala*

Sl. No.	Constructs and path index	Standardized Beta co-efficient	P-value	Ranks based on beta value
Personal level indicators				
1	I am trying to be happy every time ← Empowerment by self-fulfillment	0.95	---	I
2	It is very much important for spending the education of girls children ← Empowerment by Women's economic role	0.95	<0.001*	I
3	Women have the right to ask for alimony ← Empowerment by individual knowledge	0.99	<0.001*	I
4	I can provide all types of moral support if my family faces an adverse situation ← Empowerment by individual capacity	0.83	<0.001*	I
5	I am independent to take decision ← Empowerment by personal autonomy	0.80	<0.001*	I
Relational level indicators				
6	Participation in different activities of the community ← Empowerment by group participation	0.97	<0.001*	I
7	I have control overall decision ← Empowerment by household decision making	0.83	<0.001*	I
Environmental level indicators				
8	Attitudes toward women's economic role ← Empowerment by environmental level indicator	0.76	<0.001*	I

Source: Calculations based on Primary survey, 2021

Table 7.19 indicates the most influencing factors of empowerment among female-headed households in Kerala. When we consider the personal level empowerment of FHHs, among individual knowledge, based on the standardized beta coefficient, they are mostly empowered in “women have the right to ask for alimony (0.99). When we consider empowerment by self-fulfillment it is observed that ‘most of them are trying to live happily’ (0.95). Another significant aspect of their empowerment is that FHHs are trying to invest in their children’s education (0.95) and have attained the confidence to provide all kinds of moral support to their family members (0.83). With regards to the personal autonomy indicators, they are highly empowered to taking independent decisions (0.80). Regarding the relational level of empowerment, their group participation is highly significant (0.97), followed by household decision-making (0.83). When we take the environmental level indicators of FHHs, they are mostly empowered in their attitude towards women's economic role (0.76).

7.4 Conclusion

This chapter focuses on the empowerment of women among the sampled households at the personal, relational and environmental level as developed by Oxfam G B. The study point out that the female-headed households have a low level of empowerment both in personal, and relational, level indicator except in household decision making and autonomy as compared with the women from their male-headed counterparts. Another interesting fact is that there is not much difference between personal autonomy and environmental level indicators between male and female-headed households in the study area of both Malappuram and Thrissur districts.

Despite having limited education and low economic opportunities, many of them are trying to invest in their children’s education and have attained the confidence to manage many things in their families. When it comes to household decision-making, FHHs are better than women from their male-headed counterparts. Whereas, in MHHs, the decision-making and autonomy are low as the majority of the decision are taken by their spouse alone or jointly with the spouse. Joint

decision-making does not imply full freedom to women in any case, which implies the lack of their power in taking decisions alone without the consent of their spouse.

Between the environmental level indicators of empowerment, such as safety moments and social norms and stereotypes of women's economic role and ability to influence at the political level, etc., both the households are not highly empowered or are at the below-average level due to the cultural and socio-economic taboo against women. Another interesting point is that the absence of a male spouse among FHHs have a positive effect on domestic violence and autonomy. This implies that FHHs experience less violence as well as more freedom, and autonomy in households and financial affairs. In contrast, women from the MHHs are victims of domestic violence from their spouses. Which has been widely reported in the study area of both Malappuram and Thrissur districts. Similarly, most of them are afraid of their husband and need permission even to take a single step both in household affairs as well as travel out. More than half of the women from MHHs reported that they are the victims of verbal abuse from their spouses. Half of them faces mobility constraints and restriction to visiting public places. At the same time, a quarter of the female heads are victims of physical /verbal abuse and gossip both from family and community.

In sum, coming out of women to public places is a significant outcome of female headship nowadays. Most often they enjoy more autonomy in decision making, mobility, and freedom due to the permanent and temporary absence of their male partner. However, health and emotional issues are worrying subjects for women outside the marital boundary.

CHAPTER 8

THE COPING STRATEGIES ADOPTED AND THE EFFECT OF VULNERABILITY AMONG FHHs IN KERALA

CONTENTS

8.1	Introduction	172
8.2	Section-1: Coping strategies adopted by the female-headed households in Kerala.....	172
8.3	Section-2: The effect of vulnerability among FHHs in Kerala on their empowerment and coping strategies.	182

8.1 Introduction

This chapter covers the fourth and fifth objectives of the study. The chapter has been divided into two sections (1) coping strategies of a household headed by women in Kerala and (2) explore the effects of vulnerability on their empowerment and coping. The first section (8.2) deals with the life of women after becoming the head of their family, their sources of support (formal and informal sources) sources of credit, support from laws/family and community, and finally their income-generating activities. Second-order confirmatory factor analysis has been used to explore the extent of coping strategies adopted by the female-headed households in the study area. The second section (8.3) investigates the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies. This objective is attained by testing Co-variance Based Structural Equation Modelling (CB-SEM) techniques.

8.2 Section-1: Coping strategies adopted by the female-headed households in Kerala

8.2.1 Coping strategies of FHHs

Coping refers to the process by which a person attempts to manage a stress full demands. There are two major forms of coping. Problem-focused coping, and emotion-focused coping. In this context coping is operationally defined as the life of the female-headed households after the death/separation of their spouse. It also includes the effort taken by the female-headed households to overcome their vulnerability. It also explains the methods adopted by them to meet the financial problems/demands to survive/sustain and/or maintain their standard of living. Generally, female-headed households consist of a heterogeneous group such as widowed, divorced/separated, wife of disabled /unemployed husband, never married, and finally the wife of the migrant. Due to the differences in marital status their coping strategies also differ, it may vary concerning their socio-economic and demographic characteristics. The following headlines explain the coping strategies adopted by the female-headed households in the study area.

8.2.1.1 Years of Headship and coping of FHHs in the study area

The years of the headship of female-headed households have been categorized as below 10 years, 10 to 20 years, and above 20. The table explains the distribution of the female-headed household concerning their years of headship.

Table 8.1 *Distribution of the female-headed households concerning years of headship*

Years of headship	Widow	Divorced/ Separated	Unemployed/ Separated	Single	Wife of migrant
Below 10 years	39(52.7)	11(35.5)	15(71)	1(4.8)	23(52)
11-20 years	21(28.4)	12(38.7)	4(19)	9(42.8)	14(30)
20 above	14(18.9)	8(25.8)	3(10)	11(52.4)	8(18.)
Total	74	31	22	21	45

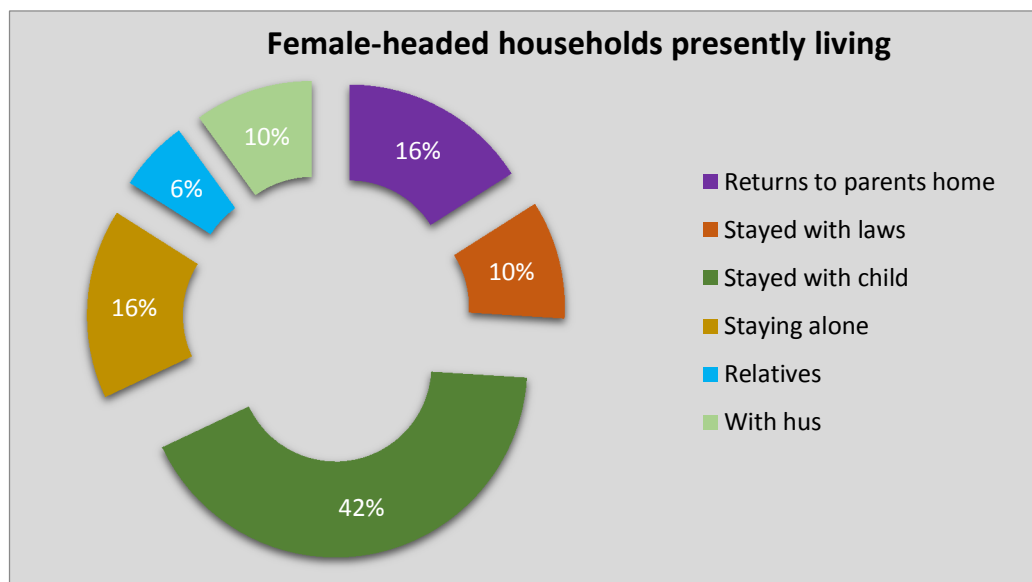
Source: primary survey

Table 8.1 shows the distribution of the female-headed households concerning years of headship. Among widowhood, the majority of women assume headship below 10 years. Likewise, a significant number of wives of unemployed/diseased husbands and wives of migrants also assume headship under 10 years in the study area. Furthermore, unmarried women have a long duration of headship followed by the divorced head, in the study area.

A sudden loss of a husband or a male spouse often leads to a feeling of rootlessness, many emotional and financial problems in the life of a female head. So that at the early stages of their headship vulnerability will be significantly higher due to their sustainability requirements in the absence of their spouse which also leads to increased coping among them. Thus, there is a significant and positive relationship between vulnerability and coping among these households. When the years of headship increase, they try to adjust to the situation, and by adopting various coping strategies they find their livelihood and finally become empowered. Thus, the study shows the direct and positive relation between coping and empowerment.

8.2.1.2 Presently living with

Figure 8.1 *Distribution of female-headed households presently living with*



Source: Primary survey, 2021

Figure 8.1 explains that out of 193 female-headed households in the study area, the majority of them are staying with children (42 %). The remaining 16 percent of heads stay alone, 16 percent, returns to their parent's home. The proportion of female heads who stay with relatives is only 6 percent as compared to other categories. Most of the wives of an unemployed or diseased husband stay with their husband (10 %) and 10 percent of the wife of migrants are staying with their laws.

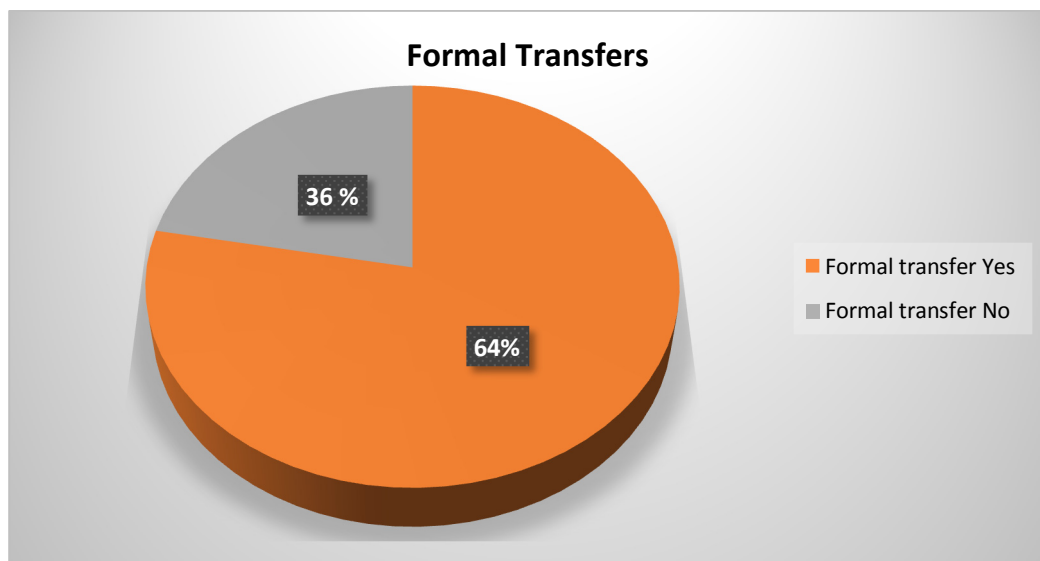
When we consider the marital status of female-headed households, it is observed that, out of total widows, 60.8 percent are staying with children and 24.3 percent of the widowed head are staying alone and 14.9 percent are living with their parents. Likewise among the total divorced and separated heads, a major part of them (48.4 %) return to their parent's home, the remaining 32.3 percent are staying in a separate home with children, 16.1 percent are staying alone and 3.2 percent are staying with relatives. In the case of total unmarried heads, the majority of them are staying with relatives (47.6 %), 28.6 percent are staying alone and the remaining

23.8 percent are staying with their parents. About the migrant wives, more than half of them are staying in a separate home with children (53.5 %) and the remaining 44.2 percent are staying with the law and 2.3 percent are staying alone.

8.2.1.3 Formal and informal transfers received by the FHHs

Formal transfer refers to the support from government sources in the form of pension, free loans, free houses, supplementary food, scholarships, and other educational assistance for the children in female-headed households. These benefits are provided by formal organizations such as Government, NGOs, Panjayath, schools, and other agencies.

Figure 8.2 *Formal transfer received by the female-headed households*



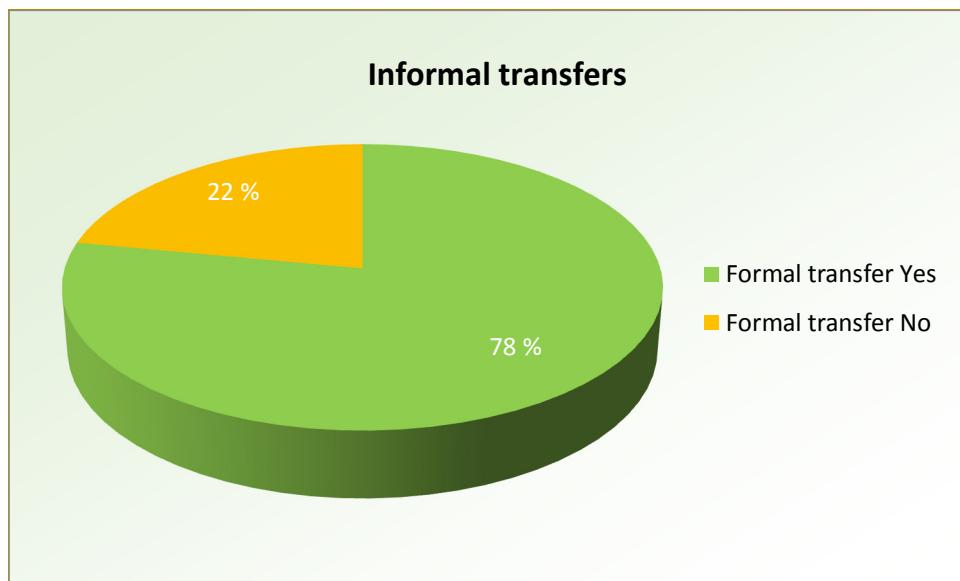
Source: Primary survey, 2021

From figure 8.2 higher proportion of the female-headed households (64 %) receives support from formal sources at the same time 36 percent of the head do not receive any support from the government. Most of the de facto household heads come under this category (wife of migrant, wife of unemployed/disabled husband).

8.2.1.4 Informal transfer received by the FHHs

Informal transfer refers to the support from informal sources such as family members, relatives/friends, and neighbors in the form of cash loans, cash gifts, free labour, food grains, and cloth.

Figure 8.3 *Informal transfer received by the FHHs*



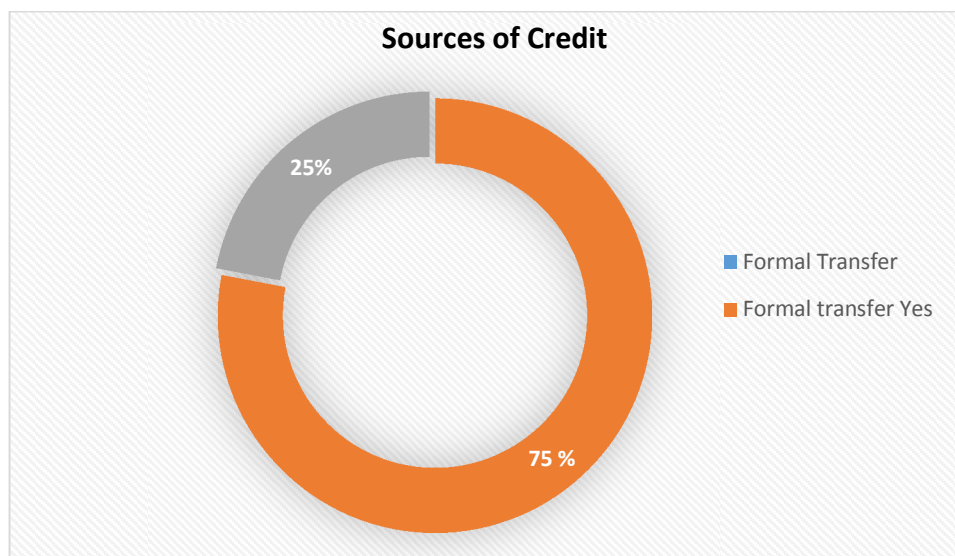
Source: Primary survey, 2021

From the 8.3 figure, it is clear that about 78 percent of household head receives informal transfers from their children, relatives, and friends. From the study area, 22 percent of the head reported that they have not received any kind of support from their relatives or friends. In this regard, they are exclusively dependent on the pension from the government.

8.2.1.5 Major sources of credit

Informal sources are the major source of credit among rural households. This can be explained in the following figure

Figure 8.4 Major sources of credit among FHHs.



Source: primary survey, 2021

Regarding the sources of credit among female-headed households, it is evident from the survey that, a higher proportion of them (75 %) depends on informal sources such as money lenders, relatives, neighbors, and friends. Whereas 25 percent of FHHs depends on formal sources of credit such as bank loan, microfinance, kudumbasree, etc. Among these kudumbasree and microfinance play a crucial role in the poverty eradication of rural households.

8.2.1.6 Participation in the labour market

Participation in the labor market is the other strategy adopted by female-headed households. About the employed female-headed households, the majority of them are divorced followed by wives of unemployed and single. Whereas, in the employed category, the participation of the wives of the migrant is very low

because of their higher economic position and the higher amount of monthly income received by them.

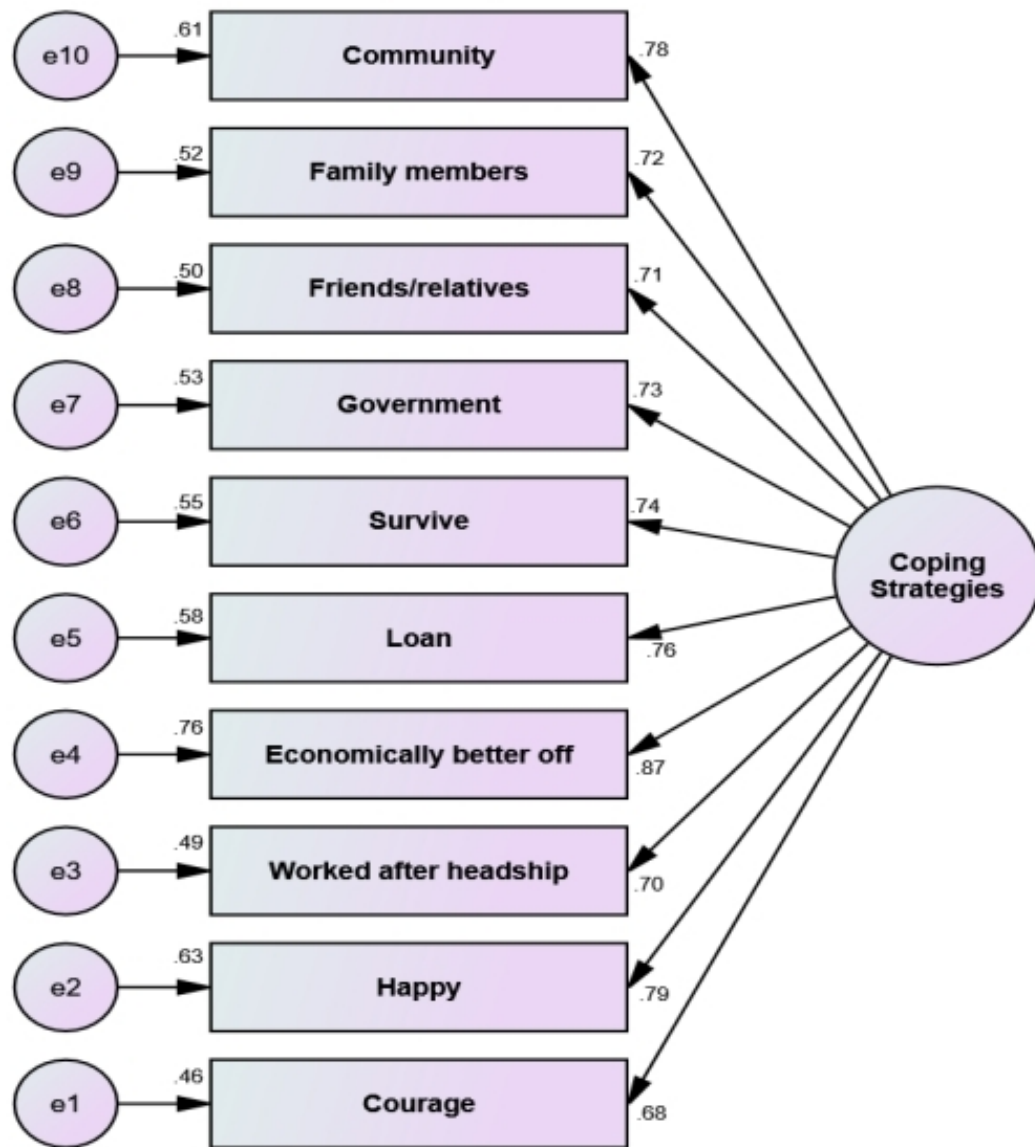
Table 8.2 *Participation of the FHHs in the labour market*

Occupation	Widow	Divorced	Wives of unemployed	Single	Wife of migrant
Unemployed	48(64.9)	10(32.3)	11(50.0)	12(57.1)	38(84.4)
Employed	20(27.1)	21(67.7)	11(50)	9(42.9)	7(15.6)
Pensioners	6(8.1)	0	0	0	0
Total	74	31	22	21	45

Source: primary survey, 2021

From Table 8.2, it is also reported that a significant proportion of female-headed households are engaged in labour force. Among FHHs a substantial proportion of them are engaged in informal sector jobs such as servant, cleaner, helper, MGNREGA workers, etc due to their lack of education as well as lack of availability of other jobs in the rural area. Most of them have reported that the wage received from the informal sector employment is very lower and not enough even for their medicine and could not even meet their household liabilities. From the study area, 33.8 percent of widowed, 29 percent of divorced, 40.9 percent wife of unemployed/diseased husbands, and 28.6 percent of the unmarried head have reported that they have taken loans for meeting their household and medical expenditure. It is also evident from the table that a very negligible proportion of the household head receives a service pension (8.1%). In sum, formal transfer from the government and informal transfer from relatives and friends/neighbors are the main source of coping strategies adopted by the unemployed female-headed households in the study area of Malappuram and Thrissur district.

Figure 8.5 Second order CFA model which examines the influencing factors of coping strategies adopted by the female-headed households in Kerala.



Source: Calculation based on primary survey

Table 8.3 Fit indices of the CFA model which examines the influencing factors of coping strategies adopted by the female-headed households in Kerala

Model	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	1.87	0.000	0.998	0.999	0.999	0.015
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Calculations based on primary Data.

Table 8.3 shows that the chi-square to the degrees of freedom ratio is 1.87 which is very well under the suggested maximum value. The other fit indices such as RMSEA, GFI, AGFI, and CFI have come under the recommended threshold levels. Thus, it can be inferred that the model is good in fitness.

Table 8.4 *Influencing factors of coping strategies among female-headed households in Kerala*

Sl. No	Constructs and path index	Standardized Beta co-efficient	P-value	Ranks based on beta value
1	Help from community ← Coping strategies of female-headed households in Kerala	0.78		III
2	Care from family ← Coping strategies of female-headed households in Kerala	0.72	<0.001*	V11
3	Care from friends and relatives ← Coping strategies of female-headed households in Kerala	0.71	<0.001*	V111
4	Support from government ← Coping strategies of female-headed households in Kerala	0.73	<0.001*	V1
5	Trying to survive ← Coping strategies of female-headed households in Kerala	0.74	<0.001*	V
6	Seeking loan ← Coping strategies of female-headed households in Kerala	0.76	<0.001*	IV
7	Trying to be economically better off ← Coping strategies of female-headed households in Kerala	0.87	<0.001*	1
8	Work after headship ← Coping strategies of female-headed households in Kerala	0.70	<0.001*	1x
9	Trying to be Happy ← Coping strategies of female-headed households in Kerala	0.79	<0.001*	11
10	Confident to face adverse situation ← Coping strategies of female-headed households in Kerala	0.68	<0.001*	x

Source: Calculations based on primary Data

* indicates significant at 1% level

Table 8.4 shows the various coping strategies adopted by the women after became the head of their households. Based on the Standardized beta coefficient, it is clear from the table that, FHHs are trying to become economically better off (0.87) in several ways. For that majority of them seek a job after becoming head of their households and trying to cope with their vulnerable situation happily (0.79). In addition to that, they receive formal as well as informal support from the community (0.78) in the form of *cash loans, food grains, cloth, free labor, cash gift, etc.* Apart from the benefit received above, seeking a loan (0.76) is another strategy adopted by them. It is also evident from the survey that, a higher share of them are seeking informal sources of credit from money lenders, employers, relatives, friends, etc, to survive against their adverse economic situation (0.74). The allowances received from the government (0.73) in the form of *pension, free loans, and free houses* are another support received by the head of the household. However, some households reported that they have not received any type of support from the government as well as non-governmental institutions. Those who are staying with their children receive care and support from their family members (0.72), whereas, those who are staying alone are not received any support from their family and they often seek support from friends and relatives (0.71) or are often engaged in the labour force (0.70). All these strategies help them to attain confidence/courage to face the adverse situation in their life (0.68) and become empowered at least in their household as well as financial affairs.

8.2.2 Conclusion

From this section, it is evident that the FHHs in the study area have been employing various coping and adaptive strategies to fill the gap which is already made by the permanent /temporary absence of their spouse. It includes formal transfers such as a pension, free loan, free house, supplementary food, scholarships, and other educational assistance for the children in such households. These benefits are often provided by formal organizations such as Government, NGOs, Panjayath, schools, and other agencies. Informal transfers are the other source of support received by the FHHs in the study area which is linked with help from family

members, relatives/friends, and neighbours in the form of cash loans, cash gifts, free labour, food grains, and cloth. In this regard, the formal and informal transfers are the major source of living of the households headed by women in the study area of both Malappuram and Thrissur districts. Whereas those who are employed get wages from their informal sector job, even though it is not sufficient, they try to overcome their household expenditure with that wage. Furthermore, those who are staying alone are more deprived as compared with those who stay with their family. In this regard, special schemes from government and non-governmental organizations in the form of financial assistance or welfare package are essential to support these vulnerable groups and uplift them into the mainstream of development.

8.3 Section -2: The effect of vulnerability among FHHs in Kerala on their empowerment and coping strategies.

This part of the study covers the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies. The objective is attained by testing Co-variance Based Structural Equation Modelling (CB-SEM) techniques. For establishing the reliability and validity of the proposed model, Co-variance Based Confirmatory Factor Analysis and Second-Order Confirmatory Factor Analysis are used. It also contains an overview of the CB-CFA and SEM methods. The result summary of hypotheses testing is also explained at the end part of this chapter. The section-2 again divided into two, sections- A and section -B. Section-A (8.3.1) deals with co-variance-based confirmatory factor analysis for the reliability and validity of research model building and section- B (8.3.2) covers the covariance-based structural equation modeling.

8.3.1 Section – A: Co-variance-based confirmatory factor analysis for the reliability and validity of research model building.

Structural equation modeling (SEM) is a set of statistical techniques used to measure and analyze the relationships between observed and latent variables. Similar but more powerful than regression analyses, it examines linear causal relationships among variables, while simultaneously accounting for measurement error. It is a powerful multivariate analysis technique that is widely used in the

social sciences. Its applications range from an analysis of simple relationships between variables to a complex analysis of measurement equivalence for first and higher-order constructs. It provides a flexible framework for developing and analyzing complex relationships among multiple variables that allow researchers to test the validity of theory using empirical models.

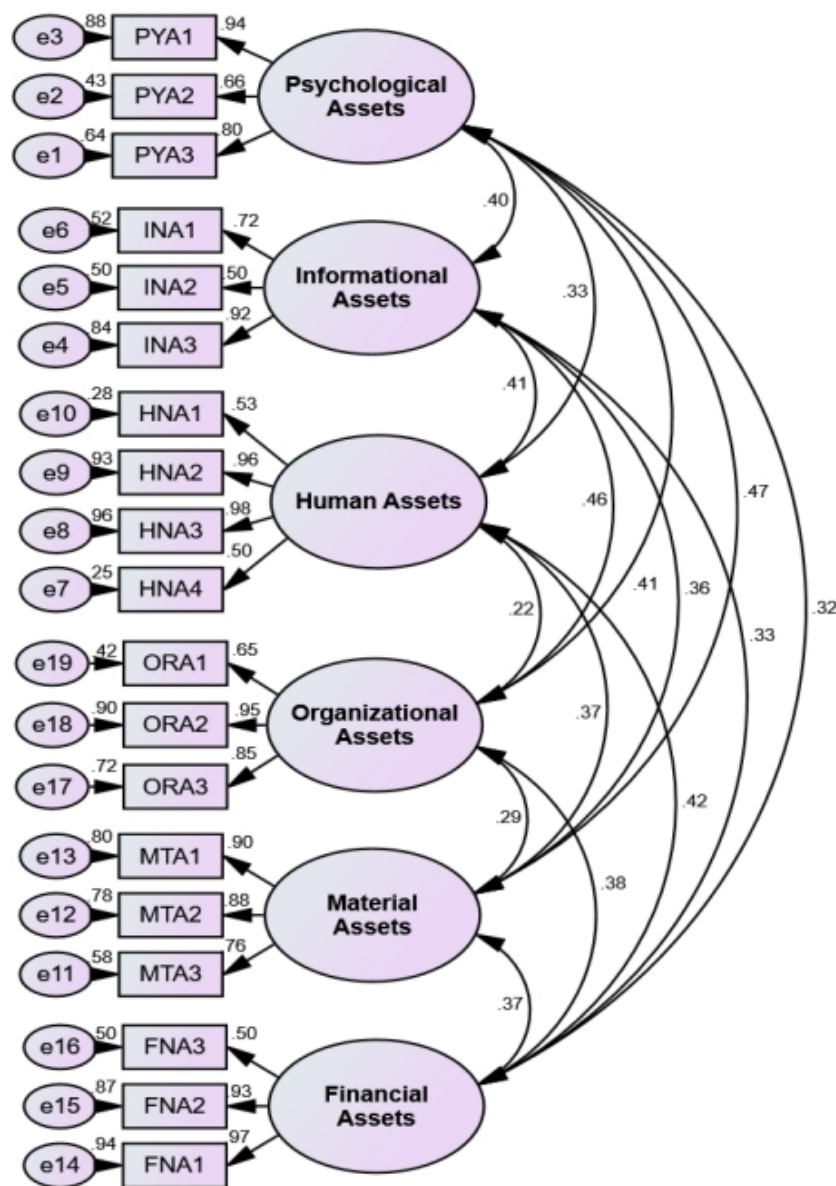
8.3.1.1 Assessment criteria of the CB-CFA models for final reliability and validity

It is necessary to establish Construct validity as well as reliability by using Confirmatory factor analysis. Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists (Suhr, 2009). The factors have to demonstrate adequate validity and reliability. The following tools are employed for the assessment of the measurement model: Composite Reliability (CR) and Construct validity.

Composite Reliability (CR) is a measure of the overall reliability of a construct. The value varies between 0 and 1. Values of composite reliability of > 0.7 and above are good (Hair et al., 2010). Values less than 0.6 indicate a lack of internal consistency. According to Hair et al. (2010), if there are convergent validity issues in the validity examination, then it indicates that the latent factor is not well explained by the observed variables. Malhotra et al. (2001) observe that AVE is a strict measure of convergent validity even more conservative than CR. The researcher has used the Average Variance Extracted (AVE) for measuring the convergent validity of this study. The value of AVE is calculated by using standardized factor loading. The threshold value of AVE is >0.5 (Hair et al., 2010). Item factor loading is also a measure to identify convergent validity (Hair et al., 2010). The threshold value of standardized factor loading for establishing item validity is > 0.5 for this study (Hair et al., 2010). If the standardized factor loadings and AVE values are more than 0.5, it indicates adequate convergence. Discriminant validity is the extent to which a construct is truly distinct from other constructs. High discriminant validity indicates that a construct is unique and captures phenomena that are not represented by other constructs. If the discriminant validity examination does not yield the required

results, it indicates that the variables correlate with variables of the other constructs to a large extent i.e. the latent variable is better explained by some other variables than by its observed variables. The researcher has used the Fornell and Larcker (1981) criterion which is a conservative method of assessing discriminant validity. It compares the square root of AVE with the latent variable correlations. The square root of the AVE of each construct should be greater than its latent variable correlation with any other constructs. By this, discriminant validity can be established.

Figure 8.6 *Confirmatory Factor Analysis for the constructs of vulnerability*



Source: Calculations based on Primary Data

Table 8.5 Model fit indices for CFA model of vulnerability

Attributes	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	3.66	0.000	0.921	0.904	0.948	0.068
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Calculations based on primary Data.

Table 8.5 shows that the chi-square to the degrees of freedom ratio is 3.66 which is very well under the suggested maximum value. The other fit indices such as RMSEA, GFI, AGFI, and CFI have come under the recommended threshold levels. Thus, it can be inferred that the model is good in fitness.

Table 8.6 Final Reliability and Validity for the constructs of vulnerability

Factors of vulnerability	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Psychological Assets (PYA)	PYA 1	0.94*	0.83	0.65	0.85
	PYA 2	0.66*			
	PYA 3	0.80*			
Informational Assets (INA)	INA 1	0.72*	0.75	0.62	0.77
	INA 2	0.50*			
	INA 3	0.92*			
Human Assets (HNA)	HNA 1	0.53*	0.85	0.60	0.85
	HNA 2	0.96*			
	HNA 3	0.98*			
	HNA 4	0.50*			
Organizational Assets (ORA)	ORA 1	0.65*	0.86	0.68	0.86
	ORA 2	0.95*			
	ORA 3	0.85*			
Material Assets (MTA)	MTA 1	0.90*	0.89	0.72	0.89
	MTA 2	0.88*			
	MTA 3	0.76*			
Financial Assets (FNA)	FNA 3	0.50*	0.86	0.77	0.86
	FNA 2	0.93*			
	FNA 1	0.97*			

Source: Calculations based on primary Data

*denotes significant at 1% level

From Table 8.6, it can be inferred that the factor loadings of all items in the CFA model are satisfied the recommended cutoff value which is > 0.5 . The Cronbach's Alpha values of the final model can be seen as satisfying the suggested threshold level which is 0.7. The Composite Reliability assessment also shows that it is met the recommended cutoff value (0.7). The Average Variance Extracted (AVE) of all constructs was found to be > 0.5 which is good for getting convergent validity. Overall, the CB-CFA model shows that all the parameters are under the prescribed limits.

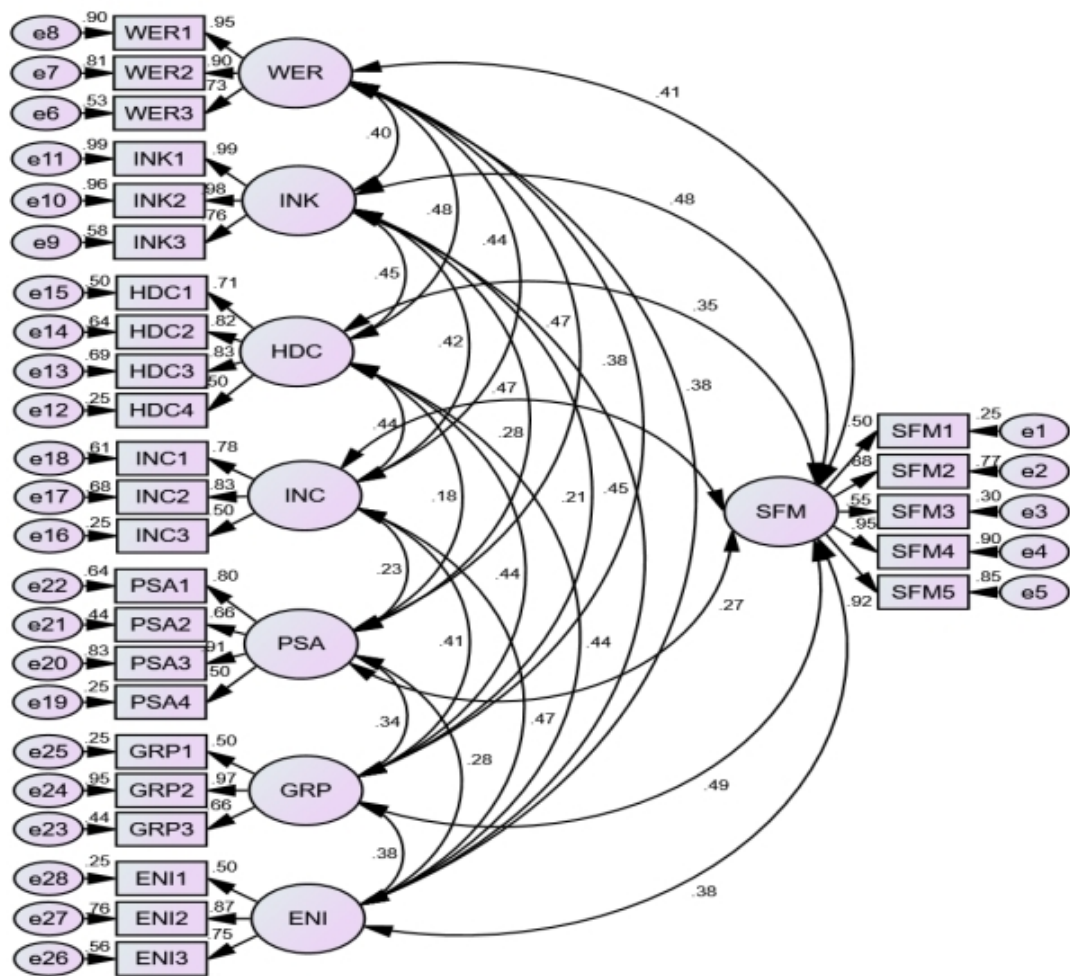
Table 8.7 *Discriminant Validity among the factors of vulnerability constructs*

Constructs	PYA	INA	HNA	ORA	MTA	FNA
PYA	(0.81)					
INA	0.40	(0.79)				
HNA	0.33	0.41	(0.77)			
ORA	0.41	0.46	0.22	(0.82)		
MTA	0.47	0.36	0.37	0.29	(0.85)	
FNA	0.32	0.33	0.42	0.38	0.37	(0.77)

Source: Calculations based on primary Data

Values in the bold letter and brackets are square root of Average Variance Extracted (AVE) scores which must be greater than the correlation values displayed in the table for establishing the on-existence of any relationships among the constructs. From Table 8.7, it can be interpreted that there are no discriminant validity issues among the constructs of vulnerability.

Figure 8.7 Confirmatory Factor Analysis for the constructs of women empowerment



Source: Calculations based on primary Data

Table 8.8 Model fit indices for CFA model of women empowerment

Attributes	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	4.55	0.000	0.918	0.901	0.939	0.071
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Calculations based on primary Data

Table 8.8 shows that the chi-square to the degrees of freedom ratio is 4.55 which is very well under the suggested maximum value. The other fit indices such as RMSEA, GFI, AGFI, and CFI have come under the recommended threshold levels. Thus, it can be inferred that the model is good in fitness.

Table 8.9 *Final Reliability and Validity of CFA Model*

Factors	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Women's Economic Role (WER)	WER 1	0.95*	0.89	0.74	0.90
	WER 2	0.90*			
	WER 3	0.73*			
Individual Knowledge (INK)	INK 1	0.99*	0.93	0.84	0.94
	INK 2	0.98*			
	INK 3	0.76*			
Household Decision Making and Comtribution (HDC)	HDC 1	0.71*	0.80	0.52	0.81
	HDC 2	0.82*			
	HDC 3	0.83*			
	HDC 4	0.50*			
Individual Capacity (INC)	INC 1	0.78*	0.75	0.51	0.75
	INC 2	0.83*			
	INC 3	0.50*			
Personal Autonomy (PSA)	PSA 1	0.80*	0.79	0.54	0.81
	PSA 2	0.66*			
	PSA 3	0.91*			
	PSA 4	0.50*			
Group Participation (GRP)	GRP 1	0.50*	0.75	0.54	0.77
	GRP 2	0.97*			
	GRP 3	0.66*			
Environmental Indicators (ENI)	ENI 1	0.50*	0.76	0.52	0.76
	ENI 2	0.87*			
	ENI 3	0.75*			
Safety Moment (SFM)	SFM 1	0.50*	0.88	0.61	0.88
	SFM 2	0.88*			
	SFM 3	0.55*			
	SFM 4	0.95*			
	SFM 5	0.92*			

Source: Calculations based on primary Data.

* denotes significant at 1% level

From Table 8.9 it can be inferred that the factor loadings of all items in the CFA model are satisfied the recommended cutoff value which is > 0.5 . The Cronbach's Alpha values of the final model can be seen as satisfying the suggested threshold level which is 0.7. The Composite Reliability assessment also shows that it met the recommended cutoff value (0.7). The Average Variance Extracted (AVE) of all constructs was found to be > 0.5 which is good for getting convergent validity. Overall, the CB-CFA model shows that all the parameters are under the prescribed limits.

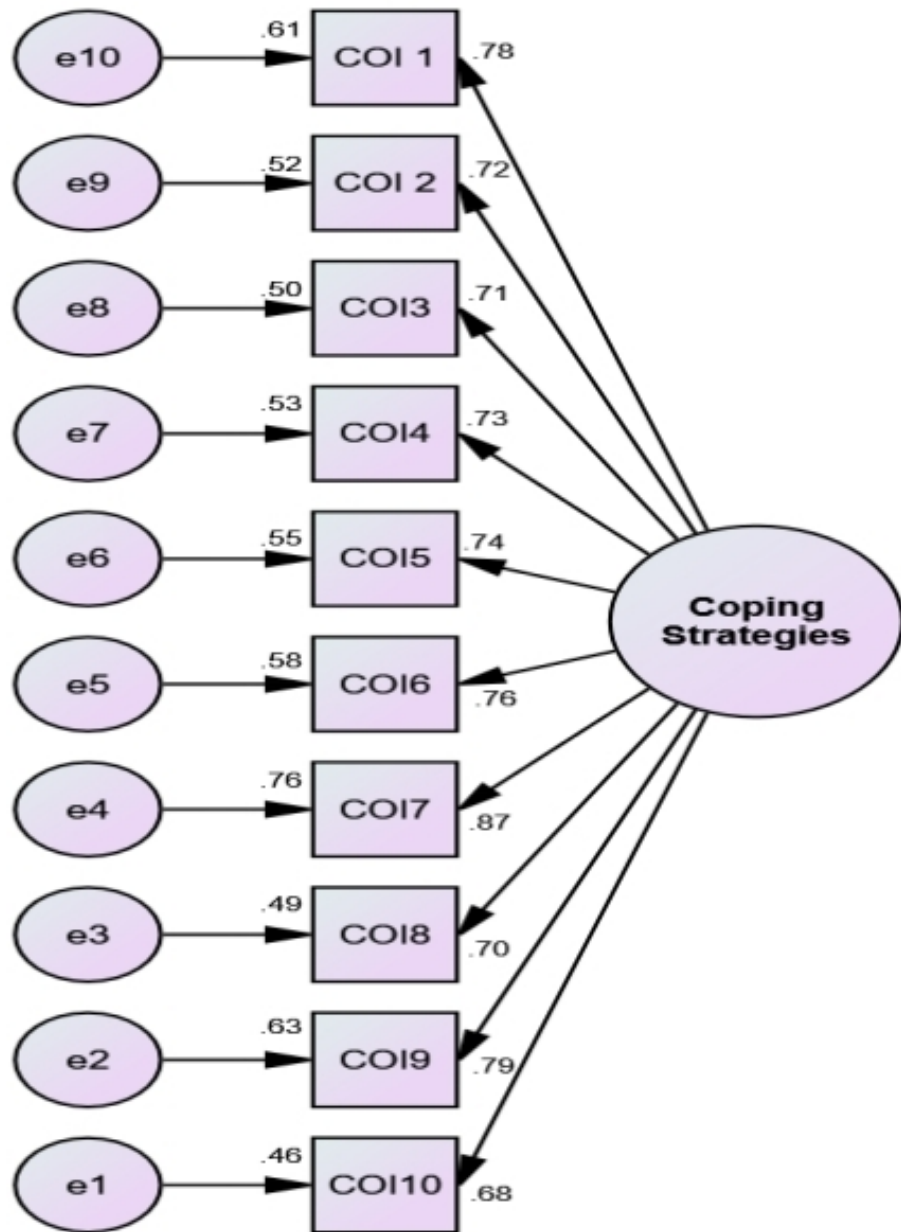
Table 8.10 *Discriminant Validity among the constructs of women empowerment*

Constructs	WER	INK	HDC	INC	PSA	GRP	ENI	SFM
WER	(0.86)							
INK	0.40	(0.92)						
HDC	0.48	0.45	(0.72)					
INC	0.44	0.42	0.44	(0.71)				
PSA	0.47	0.28	0.18	0.23	(0.73)			
GRP	0.38	0.21	0.44	0.41	0.34	(0.73)		
ENI	0.38	0.45	0.44	0.47	0.28	0.38	(0.72)	
SFM	0.41	0.48	0.35	0.47	0.27	0.49	0.38	(0.78)

Source: Calculations based on primary Data

Values in the bold letter and brackets are square root of Average Variance Extracted (AVE) scores which must be greater than the correlation values displayed in the table for establishing the on-existence of any relationships among the constructs. From table 8.10 it can be interpreted that there are no discriminant validity issues among the constructs of empowerment.

Figure 8.8 *Confirmatory Factor Analysis for the coping strategies adopted by the FHHs.*



Source: Calculations based on primary Data

Table 8.11 Model fit indices for the coping strategies of FHHs in Kerala

Attributes	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	1.98	0.214	0.991	0.981	0.995	0.012
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al. (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Calculations based on primary Data.

Table 8.11 represents the CFA model fit indices to assess the overall model fit. The value of Chi-Square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 1.98 which is very well within the suggested maximum value. The RMSEA score is 0.012, well below the accepted threshold score of 0.08. Moreover, the GFI and AGFI values are above 0.9 and CFI is above 0.9 for which 1.0 indicates an exact fit. Thus, the model is a good fit and can be considered for further analysis.

Table 8.12 Final Reliability and Validity of CFA Model of coping strategies

Coping strategy factor	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Coping Strategies	COI 1	0.78*	0.90	0.56	0.927
	COI 2	0.72*			
	COI 3	0.71*			
	COI 4	0.73*			
	COI 5	0.74*			
	COI 6	0.76*			
	COI 7	0.87*			
	COI 8	0.70*			
	COI 9	0.79*			
	COI 10	0.68*			

Source: Calculations based on primary Data

* denotes significant at 1% level

From Table 8.12 it can be inferred that the factor loadings of all items in the CFA model are satisfied the recommended cutoff value which is > 0.5 . The Cronbach's Alpha values of the final model can be seen as satisfying the suggested threshold level which is 0.7. The Composite Reliability assessment also shows that it is met the recommended cutoff value (0.7). The Average Variance Extracted (AVE) of the construct is found to be > 0.5 which is good for getting convergent validity. Overall, the CB-CFA model shows that all the parameters are under the prescribed limits.

8.3.2 Section – B: Co-variance Based Structural Equation Modeling techniques

Structural Equation Modeling (SEM) is a multivariate statistical analysis technique that is used to analyze structural relationships. It is the combination of factor analysis and multiple regression analysis. A lot of researchers preferred this method because it estimates the multiple and interrelated dependence in a single analysis. In this analysis, mainly two types of variables are used, that is, endogenous variables (dependent variable) and exogenous variables (independent variable). Structural Equation Modelling is a confirmatory approach and is mainly used for hypotheses testing and the analysis of a structural theory bearing on some phenomenon. In this study, IBM SPSS AMOS 21 software package was used to run the CB-CFA and SEM models.

Table 8.13 *The Hypotheses of model building*

Hypotheses No.	Hypotheses of model building
SM.H1	Vulnerability among the female-headed households in Kerala influences coping strategies adopted by them
SM.H2	Vulnerability among the female-headed households in Kerala has a negative influence on their empowerment
SM.H3	Coping strategies adopted by the female-headed households in Kerala have a positive influence on their empowerment

SM.H1 to 3 indicate Structural Model Hypotheses

Figure 8.9 A hypothesized conceptual model for the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies

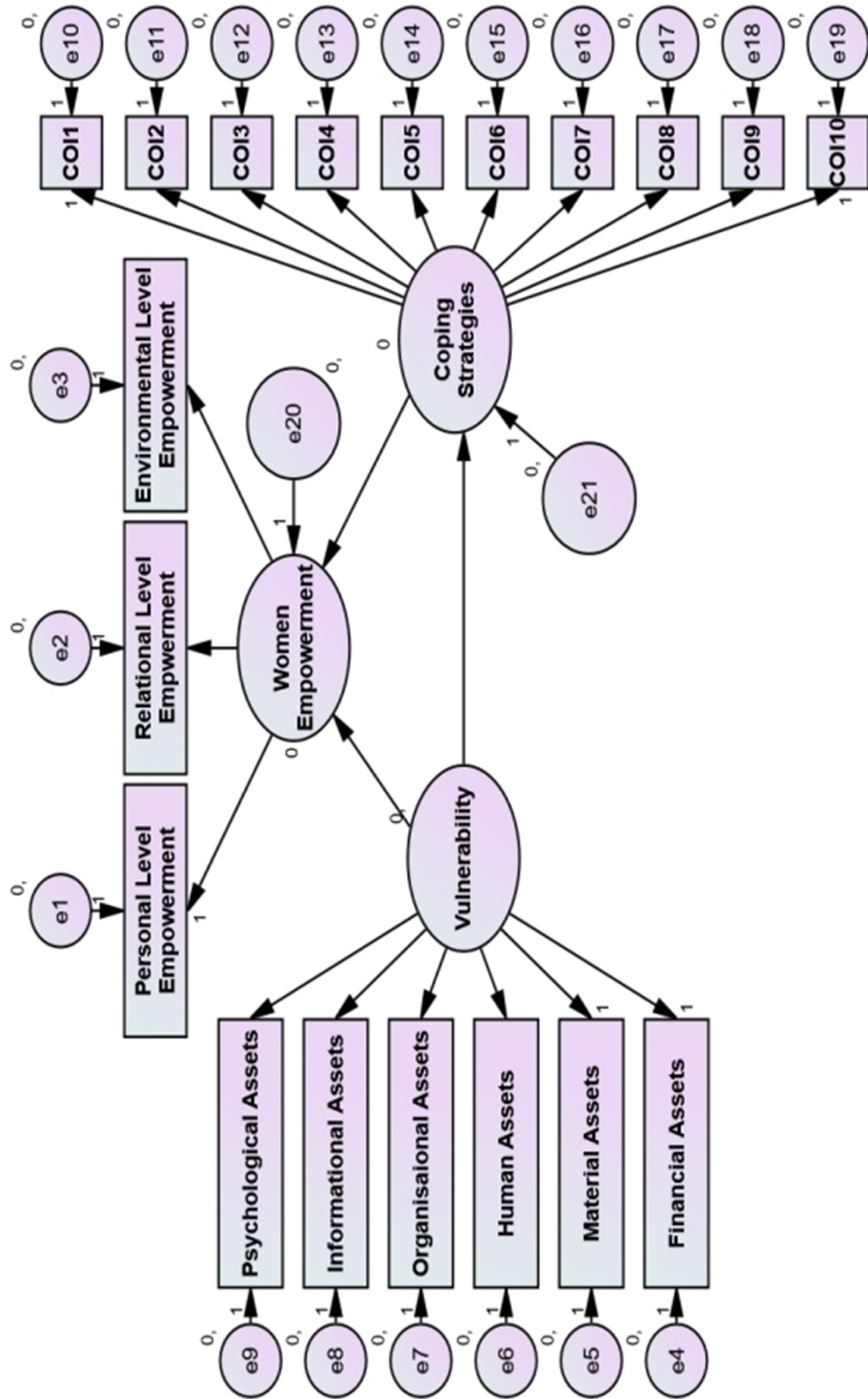


Figure 8.10 A tested model for the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies

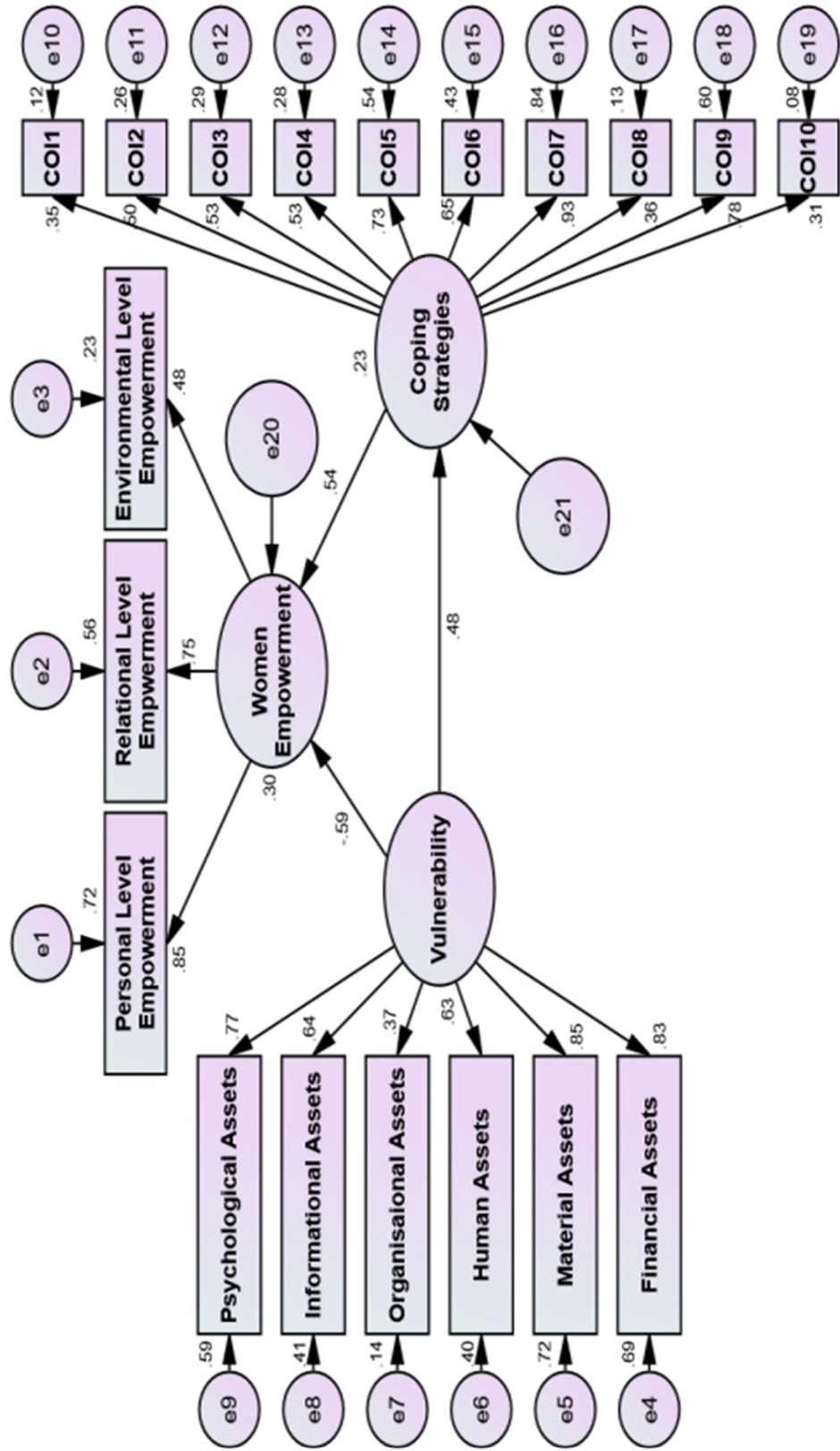


Table 8.14 *Model fit indices of the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies*

Model	CMIN/DF	P-Value	GFI	AGFI	CFI	RMSEA
Study model	3.64	0.098	0.988	0.961	0.995	0.025
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Calculations based on primary Data

Table 8.14. shows that the chi-square to the degrees of freedom ratio is 3.64 which is very well under the suggested maximum value. The other fit indices such as RMSEA, GFI, AGFI, and CFI come under the recommended threshold levels. Thus, it can be inferred that the model is good in fitness.

Table 8.15 *Path analysis values and R² values for the effects of vulnerability among female-headed households in Kerala on their empowerment and coping strategies*

Constructs path index	Standardized co-efficient (Beta)	R ² Value	Critical Ratio	P-value
Coping Strategies ← Vulnerability	0.48	0.23	9.08	<0.001*
Empowerment ← Vulnerability	-0.59	0.30	11.58	<0.001*
Empowerment ← Coping Strategies	0.54		10.94	<0.001*

Source: Calculations based on primary Data

*indicates significance at 1% level,

8.3.2.1 SM.H1: Vulnerability among the female-headed households in Kerala influences coping strategies adopted by them

The study reveals that vulnerability among the female-headed households in Kerala influences their adoption of coping strategies. It means the various coping strategies adopted by the female-headed households in Kerala depend upon the intensity of the vulnerability suffered by them. The standardized beta coefficient of vulnerability on coping strategies is 0.48 which represents the partial effect of

vulnerability on coping strategies, holding the other path variables constant. It implies that the adoption of coping strategies would increase by 0.48 for every unit of standard deviation increase in vulnerability and this coefficient value is significant at a 1% level.

8.3.2.2 SM.H2: Vulnerability among the female-headed households in Kerala has a negative influence on their empowerment.

The study shows that vulnerability among the women-headed households in Kerala has a negative influence on their empowerment. It means that the empowerment of female-headed households in Kerala would be decreased due to the vulnerability suffered by them. The standardized beta coefficient of vulnerability on empowerment is -0.59 represents the partial effect of vulnerability on empowerment, holding the other path variables constant. The estimated negative sign indicates that such an effect is negative and empowerment of the female-headed households in Kerala would decrease by 0.59 for every unit of standard deviation increase in vulnerability and this coefficient value is significant at a 1 percent level.

8.3.2.3 SM.H3: Coping strategies adopted by the female-headed households in Kerala have a positive influence on their empowerment

The study highlights that *the* coping strategy adopted by the female-headed households in Kerala has a positive influence on their empowerment. It means the empowerment of female-headed households in Kerala would be increased because of the empowerment efforts made by them. The standardized beta coefficient of coping strategies on empowerment is 0.54 representing the partial effect of coping strategies on empowerment, holding the other path variables constant. The estimated positive sign indicates that such influence is positive and empowerment of the female-headed households in Kerala would increase by 0.54 for every unit of standard deviation increase in coping strategies and this coefficient value is significant at a 1 percent level.

8.3.3 Explanations of R² values

The coefficient of determination for coping strategies, R² is 0.23. This value implies that about 23 percent of the variation in coping strategies is explained by the vulnerability factor. This value leads to the conclusion that other independent constructs are necessary for predicting coping strategies besides the independent construct, vulnerability. The remaining 77 percent of the variation in coping strategies is not explained by this independent construct.

The coefficient of determination for empowerment, R² is 0.30. This value implies that about 30 percent of the variation in empowerment is explained by vulnerability and coping strategies. This value leads to the conclusion that other independent variables are necessary for predicting empowerment besides these independent constructs. The remaining 70 percent of the variation in empowerment is not explained by these independent constructs.

Table 8.16 *Result summary of hypothesis testing*

Hypotheses No.	Hypotheses of the model developed	Result of Hypotheses testing
SM.H1	Vulnerability among the female-headed households in Kerala influences coping strategies adopted by them	<i>Supported</i>
SM.H2	Vulnerability among the female-headed households in Kerala has a negative influence on their empowerment	<i>Supported</i>
SM.H3	Coping strategies adopted by the female-headed households in Kerala have a positive influence on their empowerment	<i>Supported</i>

SM.H1 to 3 indicates Structural Model Hypotheses

8.3.4 Conclusion

This chapter deals with the fourth and fifth objectives of the study. In the first section, we have seen the various coping strategies adopted by the women in Kerala after becoming the head of their households. In this section, we test the interconnection of vulnerability, empowerment, and coping strategies of a

household headed by women in Kerala. It was found that the relationship between vulnerability and empowerment are inverse. On the other hand, the relationship between vulnerability and coping are positive. As for coping increases, empowerment also increases. In this chapter, three hypotheses were tested and a model for female-headed households in Kerala was developed based on the results of the hypotheses testing. All hypotheses are supported by the theoretical model. Fit indices show that all CFA and SEM models are a good fit.

CHAPTER 9

SUMMARY OF FINDINGS AND CONCLUSION

CONTENTS

9.1	Introduction	200
9.2	Brief overview of the study.....	200
9.3	Summary of findings.....	201
9.4	Result summary of hypothesis testing.....	212
9.5	Remarks and suggestions.....	213
9.6	Direction for future research.....	214
9.7	Conclusion.....	215

9.1 Introduction

The study titled ‘An analysis of female-headed households in Kerala: Vulnerabilities and coping strategies’ Has shed light on the vulnerability, empowerment, and coping strategies of female-headed households in Kerala with special reference to Malappuram and Thrissur District. This chapter summarizes the major findings of the study which include a summary of the methodology, the theoretical background of the study, a summary of objectives, and hypothesis testing, finally, it also brings out policy suggestions and recommendations to uplift the life of households headed by women in Kerala.

9.2 Brief overview of the study

‘Women in Kerala have a better status in terms of education, health, and demographic indicators compared to the rest of the states in India. However, Gender-sensitive social development such as gender-based violence, particularly domestic violence, the rapid growth of spread of dowry, low growth of employment, etc, have created a significant number of left-behind women and children in the state (Economic review, 2021; Lini GR, 2013)’. One of the major issues faced by Kerala is the household headed by women.

The issues related to women-headed households in Kerala are so spectacular when compared to other states in India, especially in the case of widowhood, and migration. The main objectives of the empirical study are to examine the socio-economic and demographic characteristics of female-headed households, to compare the outcome and vulnerability of FHHs with the women from their male-headed counterparts, and to examine the coping strategies adopted by the women after becoming head of their households.

Data used for this study was collected from both rural and urban areas of Malappuram and Thrissur using a structured interview schedule. One Grama Panjayath representing the rural population and one Municipality representing the urban population from each district were selected. Altogether 16 wards and a total of 386 households were selected for the study purposely (193 women-headed

households and 193 women from male-headed households). The explanatory variable such as (1) actual income, 2) deprivation of assets, including human and non-human assets, 3) Infrastructure and sanitation 4) Psychological and health status 5) social support,6) decision making and autonomy 7) Participation in community and recreational activity, etc. are incorporated in this study to fulfill the objectives. To measure the vulnerabilities of a household headed by women, various types of assets such as Psychological, informational, organizational, financial, and human assets have been incorporated. Likewise, woman's empowerment has been examined by using personal, relational, and environmental level indicators. Furthermore, their coping strategies also were elucidated in the study including their formal and informal source of credit.

From the theoretical background of the study, the researcher has identified three major theoretical approaches to address the vulnerabilities and coping strategies of the FHHs (1) Feminization of poverty (2) Capability approach, and (3) Sustainable livelihood approach. The Feminization of poverty elucidates that, the gender of a household has a historical connection with the occurrence of poverty and vulnerabilities, especially in developing countries. Generally, FHHs are exposed to have three types of burdens such as gender burden, household burden, and headship burden. The capability approach explains that differences in entitlement and capabilities are the major cause of their vulnerability. As per the Sustainable livelihood approach, the vulnerability of FHHs is associated with a lack of basic assets such as human, physical, social, financial, and natural as compared to MHHs. In this regard, they are leading a desperate life.

9.3 Summary of findings

9.3.1 Objective -1- Socio-economic and demographic characteristics of the sampled households

Women in any particular country do not constitute a homogeneous category as they differ from each other not only in demographic characteristics but also in a distinctive pattern of behavior. One of the significant issues faced by Kerala is the

household headed by women. The economic status and sustainability of female-headed households and the relative vulnerability of those who live in them will then depend on factors such as the characteristics of the household head and the composition of the households. ***This section provides the socio-economic and demographic characteristics of the FHHs in comparison with the women from their male-headed counterparts.***

Among the prevalence of female headship in the study area, widows are more in number followed by the wife of migrants and divorced. Most of the FHHs belong to the Hindu religion followed by Muslims and Christian. The share of FHHs in the OBC category is significantly higher, whereas in SC/ST category their proportion is even negligible (10.36 percent is only).

In almost all countries, FHHs account for a higher proportion (or equal proportion) of urban than rural households. Deviating the above finding, from my survey experience of Malappuram, most of the FHHs are reside in a rural area, contrarily, in Thrissur district, they have appeared in the urban area.

Concerning the household size, FHHs are smaller in household size as the majority of them are staying alone. Furthermore, there are more female members than males in such households. This implies the sex ratio in FHHs are lower than that of their male-headed counterparts due to the death, divorce, and separation of their male spouse. As a result, more female heads are found in the study area, without having any earning members, and are completely dependent on the pension from the government. Regarding the number of earning members in the family, male-headed households are more advantaged as a higher proportion of them have more than two earning members owing to their household structure and composition. Thus, the study reveals that the deprivation of FHHs is mainly reflected in the absence of income providers as well as a significant number of dependents among them.

FHHs are found in all age groups. In a very young age group (below 30 and 30- 45 years) the proportion of wives of migrant are higher followed by divorced,

wives of disabled, and single. The proportion of widowed in this age group is negligible. Whereas, in the age group 61 and above, a significant proportion of female heads constitutes widows. The study finds that a major part of the FHHs in the study area constitute widows followed by wives of migrants.

In discussing education, most of the FHHs have primary or secondary education. The Graduate and postgraduates are considerably lower. Among these, migrant wives are highly qualified in terms of higher education as compared with the single, widowed, wife of the unemployed, and divorced heads. Concerning their occupational status, it is clear that male-headed households are comparatively better or higher in occupational structure as there are a greater number of government employees, bank employees, and doctors. Moreover, the percent of households working as casual labour or servant in male-headed households are comparatively very small or negligible, which shows their economic position and bargaining power.

It is also evident from the survey that a significant proportion of the female-headed households in the study area are unemployed because of the care and support from their family members. In this regard, a large number of migrant wives, widowed heads, and single heads (unmarried) are not entering the labour market as most of them stay with their siblings, relatives, and children. At the same time with regards to the employed category divorced heads constitute a significant proportion, followed by wives of an unemployed and single head.

Most of the FHHs in the study area are found in the lowest income group (below ₹ 10,000). A higher number of single, divorced, wives of unemployed fall under this category. Whereas, in the highest income group (above ₹ 70,000) the share of wives of the migrant is considerably higher followed by male-headed households.

Moreover, their deprivation is associated with a lack of land, livestock, and ownership of consumer durables. The share of FHHs without land is relatively higher in the study area than the corresponding percentage of their male-headed

counterparts. Furthermore, they are relatively worse-off in socio-economic and demographic characteristics including sanitation, infrastructure, and own well as equated with their male-headed counterparts. The housing characteristics of the sampled households reveal that the percentage of female heads living in semi-Kutcha houses are two times higher than their male-headed counterparts. Likewise, the distribution of female heads living in Kutcha houses are four times higher than their male-headed counterparts. Furthermore, their vulnerability is also visible in, their lack of savings and income.

The district-wise comparison of the Malappuram and Thrissur districts implies that most of the FHHs in Malappuram reside in rural, contrarily, in the Thrissur district, they have appeared in the urban area. Regarding the religion of the sample households, Thrissur district ranks top in Hindu respondents whereas Malappuram has the highest proportion of Muslims. In the context of marital status between the two districts, Thrissur district holds the highest proportion of widowed, divorced, spouse unemployed, and single head. Whereas, Malappuram ranks top in deserted women due to male out-migration. Regarding the education and employment level of the sample respondent, Thrissur district holds the top of Malappuram. The proportion of the graduates and the proportion of the respondents who retired from government services were also higher in Thrissur than in Malappuram.

In short, socio-economic and demographic characteristics reveal the deprivation of FHHs in terms of low income, low literacy, poor condition of housing, lack of sanitation and amenities, poor health and health care as compared with the women from their male-headed counterparts. From the survey experience, it is evident that most of the single, divorced, and wives of unemployed income fall below 10000. Regarding their labour force participation, most of the divorced heads' participation in employment is comparatively higher than others. Concerning their decision-making power, divorced heads who stay alone have more control over household affairs followed by widowed heads. When it comes to community participation, wives of unemployed and disabled husbands are comparatively higher followed by single and divorced heads. Moreover, most of the single,

divorced, and widowed heads have been facing exploitation and isolation both from family and community. As a result, their entertainment and recreational activities are lower than the women of their male-headed counterparts. Among the FHHs divorced /separated followed by single heads certainly have more problems because the biggest stigma is attached to their status as compared to widows.

9.3.2 Objective -2 - Income and asset vulnerability among female-headed households in Kerala

This section investigates the income and asset vulnerability of FHHs in Kerala; as compared with the women from their male-headed counterparts. Various factors have been incorporated to test their vulnerability such as the household's monthly income and various types of assets such as human assets, Psychological assets, material assets, informational assets, organizational assets, and financial assets. When we consider the distribution of income between households, the study address that there is an unequal distribution of income between male and female-headed households, as a result, a higher proportion of FHHs mostly falls under the lowest income group. Most of the single, divorced, and wives of unemployed fall under this category. Religious-wise distribution of the household income implies that the mean income of Christian households is significantly higher than that of Muslims and Hindus.

Regarding the asset vulnerability of the household headed by women, the study exhibit that lack of material assets are the most crucial vulnerability faced by them. The material assets have been classified under type of house, ownership of consumer durables, ownership of land and tools, etc. Another form of vulnerability faced by them are lack of financial assets (lack of household income, higher expenditure, and lack of saving). This is mainly associated with the factors such as lack of education, employment opportunities, mobility constraints, child-caring obligations, and higher household responsibilities. Owing to these, a higher proportion of them are engaged in part-time or informal sector employment. The informal

sector employment provides wages only for subsistence, which often led them to live in poverty-led vulnerability.

Female headship and its repercussions have made many disorders in the psychological and economic life of the members of the household including the head. In the study area, FHHs are reported several psychological issues such as the feeling of loneliness, insecurity, stress worthlessness, depression, anxiety, constant fear, and struggle to meet the household affairs due to the permanent and temporary absence of their male partner. Another form of vulnerability faced by them are the lack of informational assets. It has been classified as access to newspapers, television, and the awareness of the respondent about the various program in the locality.

Besides informational assets, their deprivation is associated with human assets such as health and education. In the case of organizational assets such as participation in community i.e. Panjayath/Grama Saba meeting, public protest, political campaign, female-headed household's participation is comparatively better than that of the women from their male-headed counterparts.

In sum, FHHs are vulnerable in terms of various types of assets such as material, financial, psychological, informational, human, and organizational. Among these, material assets are the most influencing factor of vulnerability among them followed by Financial Assets, Psychological Assets, Informational Assets, Human Assets, and Organizational Assets. Among material assets, they are more vulnerable in terms of ownership of the house. With regards to financial assets, their vulnerability is mostly associated with a lack of saving due to a lack of income. Between psychological assets, their worries are more crucial. About informational assets, they are more vulnerable in terms of lack of awareness about any program in the locality. Among human assets poor health and chronic diseases is the major cause of their vulnerability. When it comes to organizational assets, they are deprived of in participation of family and recreational activities.

9.3.3 Objective -3- Empowerment/outcome of FHHs in Kerala

In this section empowerment of women has been tested at the personal, relational, and environmental levels. This framework has been adopted by Lombardini, Bowman, and Garwood (2017) to measure women's empowerment at Oxfam G B. The study address that among personal level empowerment indicators, male-headed households are comparatively better in terms of self-fulfillment, opinion on women's economic role, individual knowledge, and individual capacity as that of FHHs. Whereas, in personal autonomy, there is not much difference between women from male and female-headed households in the study area. Regarding the relational level empowerment indicators such as participation of FHHs in family functions, religious gatherings, recreational activities, and membership in an organization, it is found that FHH's empowerment is comparatively lower due to their socio-cultural taboos, time constraints, and the higher household responsibilities. Thus we can say that among personal and relational level indicators their empowerment is lower than that of women from their male-headed counterparts.

Among the relational level indicators, FHHs are empowered only in decision-making and autonomy. Their decision-making can be classified at the household and community level. Concerning the decision-making at the household level, they have full autonomy in financial as well as household affairs as there is no one to limit /control them. The decision-making power of FHHs at the community level indicates that they have very little control over community affairs. They just participate in community activities such as participation in Panjayath meetings, Grama saba, public protests, etc.

Another interesting point is that the absence of male spouses among FHHs have a positive effect on domestic violence and autonomy in the sense that women experience less violence, more freedom and autonomy in such households. On the other hand, in MHHs women reported that the decision-making and autonomy are comparatively lower as the majority of the decisions

are taken by their spouse alone. Moreover, women from their MHHs are victims of domestic violence from their spouses this has been widely reported in the study area. Besides, most of them are afraid of their husband and need permission even to take a single step both in household affairs and travel out.

At the environmental level indicators like safety moments, social norms and stereotypes of women's economic role, and ability to influence at the political level both females and women from male-headed households are not empowered, owing to lack of courage and education. Moreover, socio-economic taboos, cultural restrictions, and an element of patriarchy also play a major role in it.

In sum, coming out of women to public places is a recent phenomenon, that is a significant outcome of female headship nowadays. Moreover, they have gained autonomy in making individual decisions, meeting household needs, control over children, and finally meeting the adverse situations in life.

9.3.4 Objective - 4- Coping strategies of women after their headship

The households in the study area have been employing various coping and adaptive strategies to fill the gap which is already made by the permanent /temporary absence of their spouse. The coping strategies received by the study communities include formal transfers - which refers to the support from government sources in the form of pensions, free loans, free housing, supplementary food, scholarships, and other educational assistance for the children in such households. These benefits are often provided by formal organizations such as Government, NGOs, Panjayath, schools, and other agencies. Informal transfer refers to the support from informal sources linked with, family members, relatives/friends, neighbour in the form of cash loans, cash gifts, free labour, food grains, and cloth. In this regard, the formal and informal transfers are the major source of living in the household headed by women in the study area.

Labour market participation is the other coping strategy against their vulnerability. Those who are staying alone have more financial crises and are generally entering the labour market than others. In the study area, the divorced

head mostly participates in the labour market as they have no support from in-laws. Likewise, wives of unemployed/disabled spouses and unmarried head's participation are also very high due to their economic hardship. The factors such as lack of training, low education, mobility constraints, and caring responsibilities often led them to work in informal sector employment such as factory workers, helpers, servants, etc., which often provide them with low and subsistence wages. So that they cannot escape from the vicious circle of poverty. Likewise, many of them in the study area participate in self-help groups, Kudumbasree, and microfinance to meet their financial requirement.

Even though they experience several sociocultural taboos their participation in community activities is considerably higher because of the economic benefit received by them from the community than that of women from their male-headed counterparts. In recent years Government has designed sustainable development and many poverty reduction programs to improve rural people's life. However, lack of awareness, negligence and misuse of the program were some of the constraints to carrying out the program successfully. The study also found that those who have fewer options for ex-ante and ex-post coping strategies are more poor and vulnerable. In this regard, those who are single, divorced, and wives of unemployed have very few coping strategies and are more vulnerable than others. Among the female-headed households, defacto female-headed (wife of migrant) are better off than widowed, divorced/separated, or single heads owing to the economic opportunities received by them from their migrant husband.

9.3.5 Objective- 5 - The effect of vulnerability among female-headed households in Kerala on their empowerment and coping strategies.

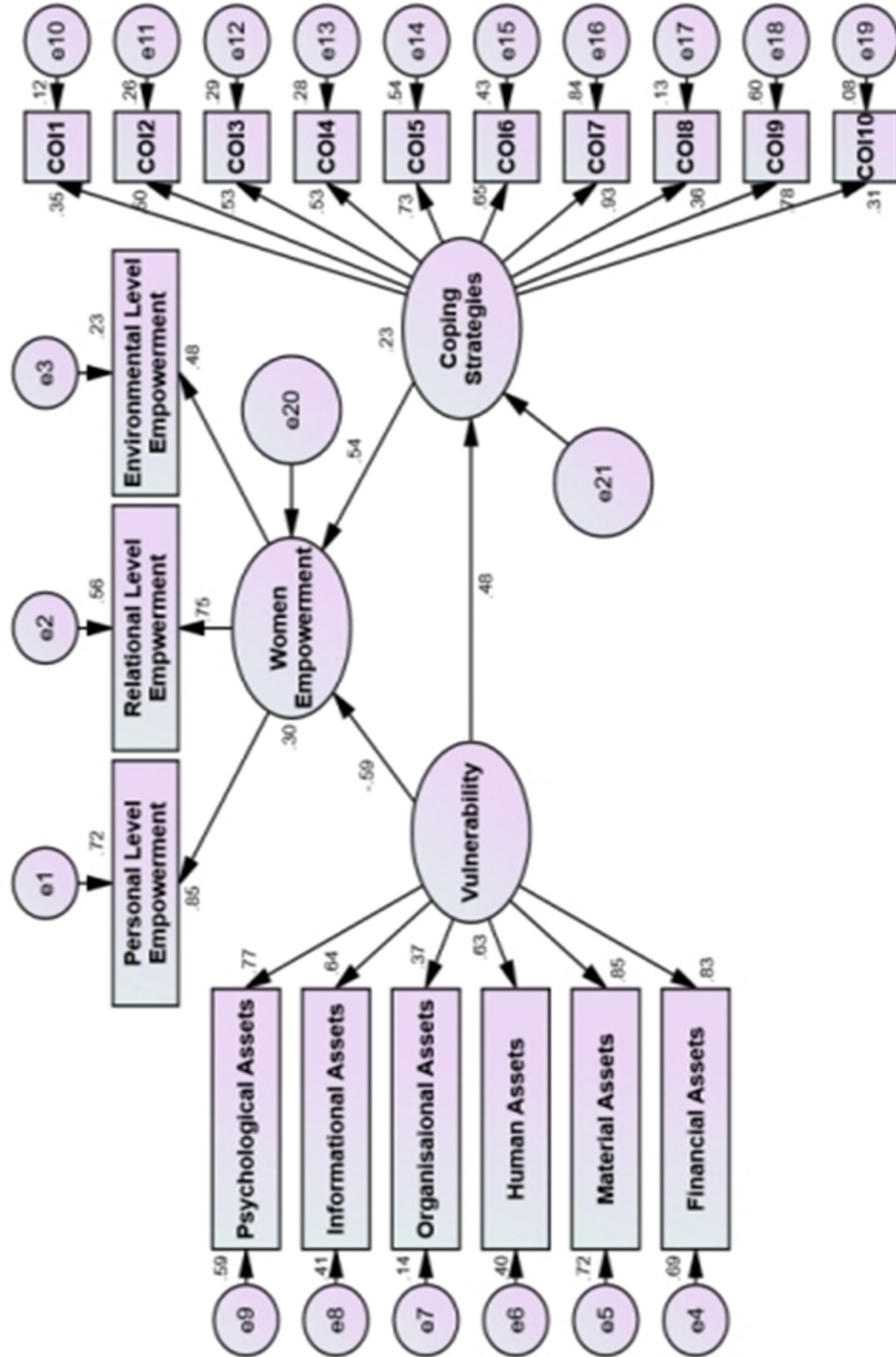
This section deals with the effects of vulnerability on empowerment and coping strategies of the household headed by women in Kerala. This objective is attained by testing Co-Variance Based Structural Equation Modelling (CB-SEM) techniques. The study reveals that there is an interconnection between, vulnerability,

empowerment, and coping among FHHs in Kerala. It implies that the various coping strategies adopted by the female-headed households in Kerala depend upon the intensity of their vulnerability suffered by them. Thus there is a direct and positive relationship between vulnerability and coping. The coefficient of determination for coping strategies, R^2 is 0.23. This value implies that about 23 percent of the variation in coping strategies is explained by vulnerability factors. The remaining 77 percent of the variation in coping strategies is not explained by this independent construct.

The study also exhibits that the vulnerability among women-headed households in Kerala has a negative influence on their empowerment. It means that the empowerment of female-headed households in Kerala would be decreased due to the vulnerability suffered by them. The study also highlights that the coping strategy adopted by the female-headed households in Kerala has a positive influence on their empowerment. It means the empowerment of female-headed households in Kerala would be increased because of the empowerment efforts made by them. The coefficient of determination for empowerment, R^2 is 0.30. This value implies that about 30 percent of the variation in empowerment is explained by vulnerability and coping strategies. This value leads to the conclusion that other independent variables are necessary for predicting empowerment besides these independent constructs. This implies that the remaining 70 percent of the variation in empowerment is not explained by these independent constructs.

The vulnerable FHHs through various coping strategies get empowered in the later years of their life is the highlight of the study. The following figure exhibit the interconnection between empowerment, vulnerabilities, and coping strategies of the household headed by women in Kerala.

Figure 9.1 Interconnection between vulnerability empowerment and coping



Source: Calculations based on Primary Data

From the figure, the standardized beta coefficient of vulnerability on coping strategies is 0.48. It implies that the adoption of coping strategies would increase by 0.48 for every unit of standard deviation increase in vulnerability and this coefficient value is significant at a 1 percent level. Likewise, the standardized beta coefficient of vulnerability on empowerment is -0.59. This indicates that the empowerment of the female-headed households in Kerala would decrease by 0.59 for every unit of standard deviation increase in vulnerability and this coefficient value is significant at a 1 percent level. Finally, the standardized beta coefficient of coping strategies on empowerment is 0.54. Here the empowerment of the female-headed households in Kerala would increase by 0.54 for every unit of standard deviation increase in coping strategies and this coefficient value is significant at a 1 percent level.

9.4 Result summary of hypothesis testing

Hypotheses No.	Hypotheses of the model developed	Result of Hypotheses testing
SM.H1	Vulnerability among the female-headed households in Kerala influences coping strategies adopted by them	<i>Supported</i>
SM.H2	Vulnerability among the female-headed households in Kerala has a negative influence on their empowerment	<i>Supported</i>
SM.H3	Coping strategies adopted by the female-headed households in Kerala have a positive influence on their empowerment	<i>Supported</i>

SM.H1 to 3 indicate Structural Model Hypotheses

In this study, three hypotheses were tested and a model for female-headed households in Kerala was developed based on the results of the hypotheses testing. All hypotheses are supported by the theoretical model. Fit indices show that all CFA and SEM models are a good fit.

9.5 Remarks and suggestions

From the major findings of the study, it is evident that female-headed households are vulnerable and are resource-poor both in terms of human and non-human resources as compared with the women from their male-headed counterparts. So that the following policy implications can be drawn from the findings of the study.

1) Mitigate female-headed household's vulnerability

The typical features of FHHs nowadays attract the attention of many governmental and non-governmental organizations both at the national and global levels. This is mainly due to the steady growth of FHHs (owing to the existing political, economic, social, cultural, and demographic complexities) and their socio-economic vulnerabilities associated with the permanent absence of their male partner. The economic deprivation faced by them can be reduced through the following measures.

- a) Redistribution of resources in favour of FHHs: From the finding of the study we have seen that they are resource-poor. To mitigate their vulnerability, redistribution of resources is the major solution.
- b) So that funding should also be provided in the National Budget for launching such schemes and programs for lifting them from their economic hardship. A joint effort of Government and Non-Governmental organizations (NGOs) is necessary in this regard.

2) Reduce triggering factors for the formation of FHHs and their vulnerability

- a) It can be possible by ensuring strict enforcement of the laws on divorce,
- b) Ensuring child support income from divorced fathers, inheritance of property rights from deceased husbands, etc., are also helpful in reducing their vulnerability and strengthening their asset base.

3) Support Female-Headed Households' Efforts

FHHs insist on support from the community, government, and non-government organizations to secure their sustainability. So the government should see their problems and take necessary steps for uplifting their condition. This can be possible under the following measures.

- a) Widen job opportunities through income-generating activities
- b) Strengthen social security systems
- c) Increase their political participation at each level
- d) Organize them to keep their rights.

4) Provide necessary support for the children in FHHs

- a) Ensure financial assistance to start self-employment for the children in FHHs.
- b) Allow educational assistance and provide training in the skill development program.
- c) Enhance job reservations (in Government jobs) for the children in female-headed households by their different educational levels, skills, and age.
- d) Counseling should be given to solve their psychological and emotional problem.

9.6 Direction for future research

This study is limited to the vulnerabilities, empowerment, and coping strategies of FHHs in Kerala. From the analysis part, it is evident that the study could explain only 23 percent of the variation in coping strategies and 30 percent of the variation in empowerment due to vulnerability factors. Therefore, future research can be conducted in a similar kind of study by incorporating various factors which predict the vulnerability and empowerment of FHHs in Kerala.

Moreover, FHHs are facing many challenges in the labour market due to their dual responsibilities (of home and wage employment) as well as low and discriminatory wages. A major focus is needed on these aspects along with the safety and security of their informal sector employment. Similarly, children in FHHs are having several socio-economic constraints due to the permanent absence of their fathers. Therefore, the welfare of children in female-headed households is need to be addressed in detail. Hence, these two are left for direction for future research.

9.7 Conclusion

Female-headed households are appearing to be on the rise both in developed and developing countries. Its repercussions are also visible in the Kerala context. The present study outlines the interconnection between vulnerability, empowerment, and coping strategies of a household headed by women in Kerala with special reference to the Malappuram and Thrissur districts. The study found that FHHs are vulnerable as compared with the women from their male-headed counterparts. Among them, most of the single, divorced, and wives of unemployed are more vulnerable as compared with widows and wives of migrants. The study portrays their higher vulnerability to material assets and lower empowerment in terms of personal, relational, and environmental indicators. Thus, they adopt various coping strategies to sustain against them. The vulnerable female-headed households through various coping strategies get empowered is the main highlight of the study

In sum, factors responsible for divorce, widowhood, never married and desertion are not only left to forming FHHs but also go beyond. It has badly affected the social lives of the women due to the increased responsibilities and single parenting pertaining to the permanent and temporary absence of their male partners. Female headship may cause independence and self-sufficiency over their household affairs, however, more likely they are overburdened and financially strained. Therefore, an exclusive scheme or financial assistance in the form of a

welfare package program is essential to uplift them from their economic hardship. A joint effort of Government and Non-Governmental Organizations (NGOs) is necessary in this regard.

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APPENDICES



APPENDIX-1

SCHEDULE USED FOR FIELD SURVEY

**FEMALE-HEADED HOUSEHOLDS IN KERALA.VULNERABILITIES
AND COPING STRATEGIES**

The interview schedule is to analyze the Vulnerability, Empowerment, and Coping strategies of Household Headed by women in Kerala with special reference to Malappuram and Thrissur districts. Your valuable views and opinions regarding this are highly important. Any information collected will be used for academic purposes only. I assure you that all your responses will be kept completely confidential.

Thanking you

**Jasna NM, Research Scholar,
Dr. John Matthai Centre, University of Calicut,
Aranattukara Thrissur.**

SECTION 1

State : Ward Number :
District : Rural/urban :
Panchayat : Date of Survey :
Municipality : Type of headship :

GENERAL INFORMATION

1.1 Household profile

Sl. No	Name of Family Members (1)	Sex (2)	Age (3)	Marital Status (4)	Education (5)	Occupation (6)	Monthly Income (7)	Any Migrant member (8)
1								
2								
3								
4								
5								
6								
7								
Total								

1.2 Personal Information

Religion	Caste	Whether You belong to	Colour of Ration Card	Whether You Have MREGP Job Card
1. Hindu 2. Muslim 3. Christian 4. Other	1. ST 2. SC 3. OBC 4. General	BPL APL	1. Yellow 2. Pink 3. Blue 4. White	No Yes
Marital status of the head	Destination	Duration	Presently live with	Do you get pension
1. Widow 2. Divorced/Separated 3. Wives of Unemployed/Disabled 4. Single Wife of Migrant 6. Married	1. Within the state 2. Within India 3. Abroad 15. Reason	1. Alone 2. Relatives 3. With Daughter 4. With Son 5. With children 6. With spouse 7. Live with Husband's family	No Yes

1.3 Welfare programs

Type of programs	Date from benefit received	The number of people who benefited	Amount	Utilization
1. Widow Pension				
2. Old age Pension				
3. Pension for handicaps				
4. Agricultural Labour Pension				
5. Pension for single women				
6. Service pension				
7. Kshema pension				

1.4 Infrastructure Facilities

Do you have the basic facilities?	Access to water	Distance to the water source	Cooking fuel	Toilet	Sanitation
No	1. Neighbor's well 2. Public well	Near	1. Wood 2. Kerosene	1. Separated 2. Attached	1. Poor 2. Average
Yes	3. Shared well 4. Piped /Municipality 5. Own well	Far	3. Biogas 4. Electrical 5. Solar	3. Both	3. Good

SECTION - 2

ASSET BASE

2.1 Housing facility

Ownership of House	Size of Holding	Owned By	Type of House	Number of Room
0. Staying in Purampokk		1. Parents	0. No House	
1. Staying with relatives		2. Child Alone	1. Kutcha	
2. Government accommodation		3. Husband Alone	2. Semi Kutcha	
3. Rented		4. Both Respondent and Spouse	3. Semi Pucca	
4. Staying in own home		5. Respondent Alone	4.Pucca	

2.2 Ownership of consumer durables

1. LCD /LED/Normal television	7. Computer/ Internet	13. Micro oven
2. Sewing machine	8. Injection cooker	14. Car /Jeep less than 5 Lakh
3. Telephone	9. Furniture	15. Luxury Car (worth more than 10 Lakh)
4. Refrigerator	10. AC	16. Two-Wheeler
5. Cooking Gas	11. Inverter	17. Bicycle
6. Washing machine	12. Own bedroom	18. Any other

2.3 Type of assets other than the residence

Assets	Yes/ No	Type of Asset	Size/amount of holdings	Whether acquired or inherited	Do you get any additional income from
1. Land					
2. Flat					
3. House					
4. Jewelry					
5. Livestock					
6. Saving and fixed deposits					
7. Investment in any other					

2.4 Savings

Saving type	Amount	Saving Objectives
0 No saving		Children's education
1. Post office		Home purchase
2. Deposit in Self Help Group		Health care
3. Deposit in Jewelry house		Children's marriage
4. Deposit in NBFCS (Microfinance) - Curries/KSFE/LIC-		House building
5. Single accounts with Commercial bank and RRB		Buying of consumer durables
6. Multiple accounts with a commercial bank, RRB, Cooperative bank, and scheduled Bank		Any other

2.5 Sources of income of your family

Sources	Yes/No	Rs.
1. Income from own employment		
2. Income from pension		
3. Income from spouse employment		
4. Income from children's employment		
5. Other sources (specify)		Total

For other sources Use the code Income from agricultural land-1, Income from livestock-2, Income from business, if any-3, Monthly income from foreign remittance if any-4, Monthly average income from Interest (bank deposit and others)-5, Income from rent -6.

2.6 Monthly consumption expenditure on items

Food item	Amount	Non-food items	Amount
1. Cereals, Pulses		1. Education & Transportation of children.	
2. Milk and milk product		2. Medical expenses	
3. Salt sugar and spices		3. Electricity bill/Gas/Pipeline	
4. Egg, fish, meat		4. Expenditure on housing (repairs and maintenance)	
5. Vegetables		5. Insurance payment/Installment of consumer durables	
6. Fruits		6. Monthly installment of curries/savings	
7. Processed food		7. Rent	
Total		

2.7 Forms of liabilities

Do you have any forms of liabilities? Yes No

If yes, specify	Type of loan	Institutional	Non-institutional	Purpose	Amount
1. Loan					
2. Dept					
3. Pledging of gold					
4. Advanced purchase without cash					
5. N.A					
Total					

Type of loan code - short term-1, Medium-term -2, Long term-.3. Purpose - code House building-1, Paying medical bill-2, Children's marriage/education-3, Paying debt-4, To meet consumption expenditure-5, Purchase of land-6.

2.8 Employment status

Are you working	Yes, reason	No, reason	Problem with working place	Mode of transport	Part-time /full time
No				Walking	
Yes				By bus	

If yes use the code Economic crisis-1, To increase family income-2, To use education-3, To become independent-4. If No use the code Household duties and care of family-1, Health issue-2, Financially secured-3, Husband not interested-4, Lack of education-5 Work not remunerative enough-6, Lack of job security and Health hazard -7, Problems with dual responsibilities-8.

2.9 Health profile

Type of health insurance	Access to hospital	Regularity of medical checkups	Health status	Cost of health care
1. Government	0. No access to the hospital due to lack of money	0. No medical check up	0. Poor	
2. Private	1. Primary health center	1. Within one month	1. Fair	
3. Employer state insurance	2. Community health center	2. Between three months	2. Neutral	
4. Others	3. Government-medical College	3. Between six months	3. Good	
5. Not applicable	4. Private hospital	4. More than one year	4. Excellent	

2.10. Health Issue?

0. No problem at all	3. Asthma	6. Pressure, sugar, cholesterol	9. Skin disease
1. stroke /cancer/ attack	4. Anemia	7. Neurological issues	10. Under weight
2. Disturbed Sleep	5. Other joint/ physical pain	8. Thyroid	11. Gynecological problem

2.11 Do you take medicine for chronic diseases? Yes -1 No-0

2.12 Does any member of your family take medicine for Chronic diseases?

2.13 Do you face the following issues in seeking medical treatment?

Issues	Most of time	Some time	Never
1. Getting money needed for treatment			
2. The distance to the health facility			
3. Finding someone to go with			
4. Lack of time for treatment			
5. Getting permission to go			

2.14 Do you have any of the following disabilities?

0. No issue at all	2. Memory loss	4. Hearing disability
1. Vision	3. Mobility	5. More than one disability

2.15 Psychological assets

List out the psychological issue you are facing?

0	No issue at all	4	Stress and worthless
1	Sad	5	Insecurity and loss of identity
2	Pessimistic	6	Depression/anxiety/constant fear
3	Struggling	7	Feeling lonely

2.16 Do you feel any type of isolation from the following?

0. Not at all 1. Family 2. Relatives 3. Friends
 4. Self 5. Society or community

2.17 Do you face any of the following issues (Most of the time -2 Sometime -1 Never-0)

Economic Problems	Children Related	Personal Problems
0. No problem at all	0. No problem at all	0. No problem at all
1. Lack of funds for buying furniture and any other assets	1. Anxiety about the future	1. A lot of criticism faced from in-laws
2. Difficulties to repay debt	2. Not enough time to spend with children.	2. Problems with Mingling relatives and society
3. Income is not sufficient even for medicine	3. Difficulty in providing school fees, and other requirements.	3. Personal and social life is difficult without a spouse
4. Difficulties in getting a loan, or credit from others	4. Problem with divorce/marriage of big children	4. Depression, isolation/insecurities

2.18 Your participation in

A. Attending any Panjayath meetings?	G. To visit relatives
B. Meeting of Grama Saba	H. Do you go to the market for shopping
C. Public protest/ political campaign?	I. Do you visit your neighbors or nearby places?
D. Family function	J. Do you spend leisure time with friends
E. Attending Festival	K. Does your family take lunch outside
F. In leisure time spend away from home	L. Going for walks or to parks whenever you are free

2.19 Informational and organizational assets (Most of the time -2, Sometime-1 Never-0)

Do you read newspapers/magazines/Others?
Do you get time to watch television / Radio?
Do you go to Cinema?
Are you aware of the program/Policies for the welfare of women?
Are you aware of the Mudra scheme for starting new enterprises?
Is there any community development program working in your community?

2.20 Your membership in an organization

Membership in an organization	Years of participation	If yes, to what extent are you involved in an important decision making
Women association		Member-only
Credit / microfinance/ Self-help group		Participating in discussion
Health worker association		Participating in decision making
Religious group		Participating in its activities

2.21 Decision Making and Autonomy

In your household who normally makes most of the decisions about the activities listed below

- Respondent herself -1 husband-2 Joint decision -3
 Child-4 Another household member-5

1. Kitchen Item (what food to buy and consume)	5. Purchase of furniture/
2. Purchase cooking utensils	6. What to give relatives as a gift
3. Visit family/ relatives	7. Purchase of land, Transfer of property
4. Children's education, health /Well-being	8. Marriage of Children, Buying Ornaments

2.22. How much control do you have in making a personal decision that affects your everyday life?

No control at all 0	Control over every few decisions 1	Control over some decisions 2
Control over most decisions 3	Control over all decisions 4	

2.23 Household responsibilities

Who normally does the following duties in your households?

- Respondent alone -1 with spouse-2 Respondent with child -3
 4. Other family members

Household Duties		
1. Cooking		7.To the ration shop for kitchen item
2. Bill payment		8.Household manager
3. Caring /Teaching of children		9.Economic provider
4.When children are sick sending them to hospital		10.Care giver
5.Attending marriage or other functions		11.Arranging fund for the family
6.Go for shopping		12. Other

2.24 Sexual violence and exploitation

Do you feel any of the following abuse?

Most of time-2 Sometime -1 Never -0

Type of violence	If yes from whom
1. Say something to humiliate you in front of others	1. Relatives
2. Threaten to hurt or harm someone you care about	2. Neighbors
3. Push you, shake you	3. Coworker
4. Showing disrespect	4. Friends
5. Attack you	5. public place

2.25. Political view and awareness

Political Participation	Score	Yes	No
No voting right was used in the last election, because of no reason	0		
No political view but voted in the last election	1		
Moderate Political Views but no Membership and voted in the last election	2		
Strong Political Views but no Membership and voted in the last election	3		
Member of any political party (Active Participation)	4		
An elected member in any constitutional body	5		

SECTION -3

(COPING STRATEGIES OF THE HOUSEHOLD HEADED BY WOMEN IN KERALA)

3.1 Survival strategies of female-headed households

Survival strategies	Years of headship	Causes of death	Occupational status before headship	Occupational status after headship	Present
1. Returns to parent's home		1. Normal			
2. Stayed with laws		2. Accident			
3. Stayed in a separate home with children		3. Attack			
4. Staying alone		4. Cancer			
5. Staying with relatives		5. Any other			

3.2 Formal and informal transfer from the last 12 month

Informal transfers	Sources	Formal transfer	Sources
0. No support	0. No support	0. No support	0. No support
1. Cash loan	1. Neighbour	1. Pension	1. Government
2. Food grain	2. Parents	2. Supplementary food	2. NGO
3. Cloths	3. Friends	3. Books /Uniforms/scholarship for children	3. School
4. Free Labour	4. Siblings /relatives	4. Free loan	4. Panjayath-
5. Cash gift	5. Children	5. Free house	5. Other agencies-

3.3 Is there any one to help you to solve Emotional Problems?

0. No one	4. Relative
1. Siblings	5. Neighbors
2. Children	6. Husband
3. Friends	7. God

3.4 Strategies adopted at the time of economic crisis

1. Bank loan-1	8. Employer
2. Post office	9. Borrow from neighbours/friends
3. Elder children	10. Microfinance
4. Moneylender	11. Cooperative society
5. Relative	12. Siblings
6. Husband	13. Pledging of gold
7. Kudumbasree/SHG	14. Any other

3.5 Are you satisfied with the formal support from the government?

3.6 Are you satisfied with the informal support from others?

3.7 Support structure

Who accompanies you for the following? Use the code alone-1, with spouse-2, with child -3, other-4.

Buying consumer durable				
Repair and maintenance				
Decision on major household item				
To the hospital				
Visit nearby places				

3.8 Social relationship and Support (use the code Cordial-3/Fair-2/Conflict-1)

Your relationship with in-laws		Help from your in-laws;
Your relationship with children		Connection with community leaders, councilors, NGOs, and political leaders?
Your interaction with family members		Help from community

3.9 Empowerment and Self Esteem (Use the code Most of time-2 sometime -1 Never-0)

Ability to take independent decisions	Control over children
Mobility	Ability to face an adverse situation
Household responsibility	To control household expenditure

3.10 How do u scale your present status?

Not recovered yet Good Very poor

3.11 Can you suggest some steps from the government for the improvement of the present living condition of female-headed households based on your own experience?

3.12 What are your outcome and vulnerabilities due to headship?

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3.13 After headship do you feel any changes in the following (Use the code improved -3 Remain the same -2 Worsened-1)

Family income	Financial support	Confidence	Decision making	Economic and social status
1.Worsened				
2.Remain the same				
3.Improved				

QUESTION TO THE WOMEN WHOSE HUSBANDS ARE STAYING WITH

1. Does your husband drink alcohol Yes No don't know
2. If yes how often Daily weekly occasionally
3. Are you afraid of your husband Most of time sometime never
4. Does your husband justify hitting or beating you in the following situation?
 a) If you go out without telling him b) If you neglect the house or children
 c) If argue with him d) If does not cook food properly
 e) If suspect him of being unfair f) If show disrespect for in lows
5. Does your husband suspect or restrict you in any circumstances?
 Yes No
6. Do you feel any type of harassment from your husband?
 Physical Mental sexual

APPENDIX –II

Constructs and items used for testing Vulnerabilities Empowerment and coping Strategies

4. Construct and item used for testing Vulnerabilities of sampled households.

Item code	psychological assets	1	2	3	4	5
PYA1	I have many things to be worried about					
PYA2	I have many responsibilities					
PYA3	My stress level has not reduced yet					
Item code	Informational assets					
INA1	I don't have newspaper reading					
INA2	I am not watching television					
INA3	I am not aware of any program in my locality					
Item code	Organizational assets					
ORA1	I don't have any participation in Panjayath or Grama Saba meeting					
ORA2	I am not participating in family functions or visiting relatives					
ORA3	I have not participated in any public protest or political campaign					
Item code	Human assets					
HNA1	I do have not a sound education					
HNA2	I have many diseases					
HNA3	My health is very poor					
HNA4	I don't have a good occupation					
Item code	Material assets					
MTA1	we don't have a good house					
MTA2	we have not sufficient consumer durables					
MTA 3	We have not sufficient land					
Item code	financial assets					
FNA1	Our family income is very low					
FNA2	We have reduced our expenditure due to a lack of income					
FNA3	We have not any type of saving					

2. Construct and item used for testing Empowerment of sampled households.

1. PERSONAL LEVEL INDICATOR				
Item code			1. A Self-fulfilment	
SFM1		I am very much important in this family		
SFM2		I am very much satisfied in my life		
SFM3		I am courageously handling every situation		
SFM4		I am trying to be happy most of the time		
SFM5		My life is great		
Item code			1. B Opinion on women's economic role	
WER1		It is very important for spending the education of girl children		
WER2		Women can do a better job than men		
WER3		A good marriage is more important than a good job		
Item code			1.c Individual knowledge	
INK1		Women have the right to ask for alimony from their husband		
INK2		Women have the right to request a reduction of court fee		
INK3		women can be as good leaders as that men		
Item code			1.d Individual capacity	
INC1		I am willing to support my family economically		
INC2		I can provide all types of moral support if my family faces an adverse situation.		
INC3		I can help my family/relatives if they face any legal action		
Item code			1.e Personal autonomy	
PAS1		I feel I am independent in my family to take action regardless of any particular moral content.		
PAS2		I have the freedom to spend income for my purpose		
PAS3		I can personally travel to visit relatives outside		
PAS4		I have accomplished many things in my life.		
2. RELATIONAL LEVEL INDICATOR				
Item code			2.a Group participation	
GRP1		Participation in recreational activities		
GRP2		Participation in family functions and visiting relatives		
GRP3		Participation in Panjayath/Grama Saba Meeting		
Item code			2.b Household decision making and contribution	
HDC1		I have control over minor household affairs		

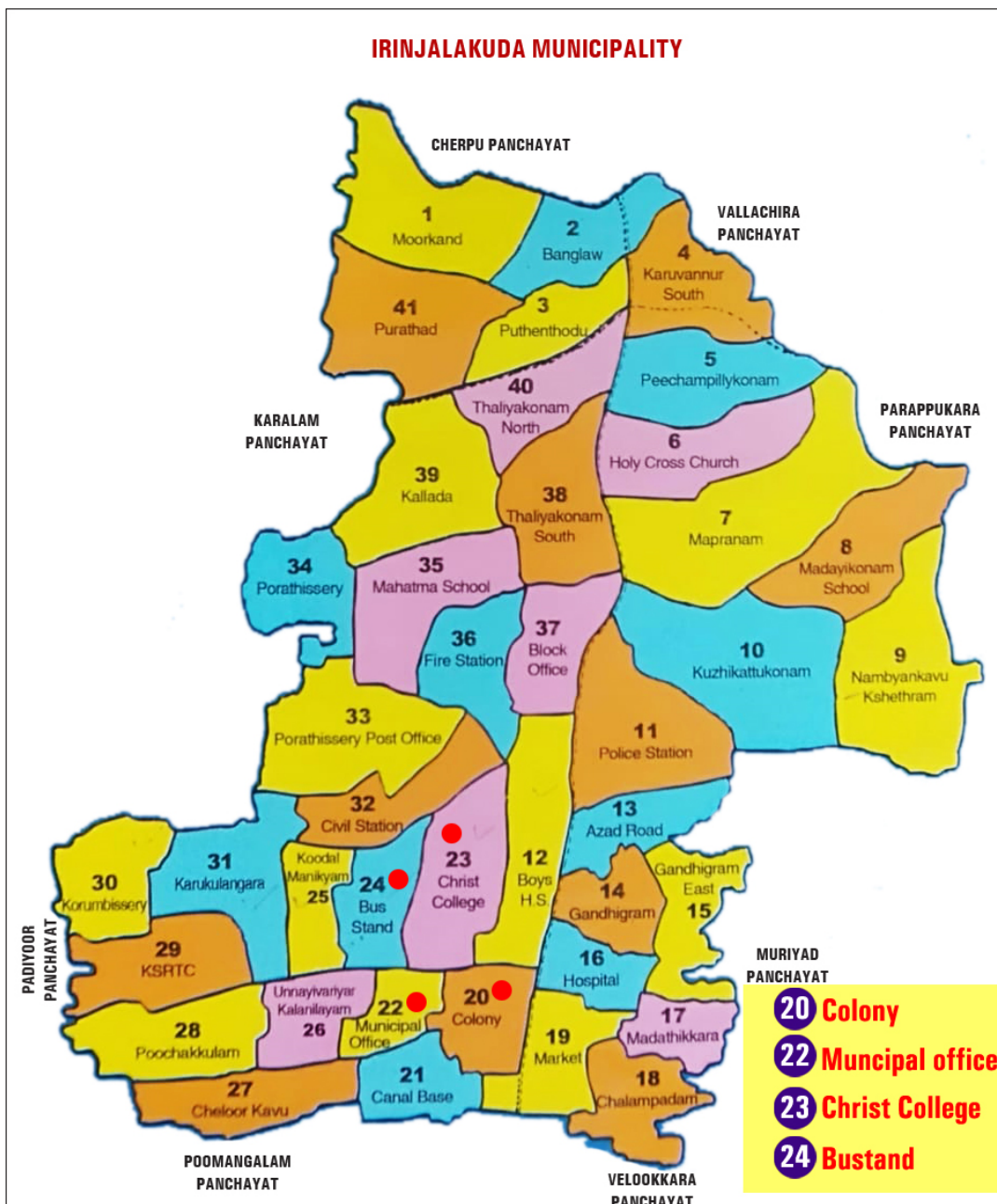
HDC2		I have Control over major household affairs		
HDC3		My total control over household decision is ...		
HDC4		Out of total income, my share of the percentage is very large		
3. ENVIRONMENTAL INDICATOR				
<i>Item code</i>		<i>3.a Safety of moment</i>		
ENI1		I feel safe walking alone in my village		
3. b social norms and stereotypes of women's economic role				
ENI2		Women can be as good leaders as men		
3. c Ability to influence at the political level				
ENI3		I have a sound political view and awareness		

5. Items used for testing coping of sampled households.

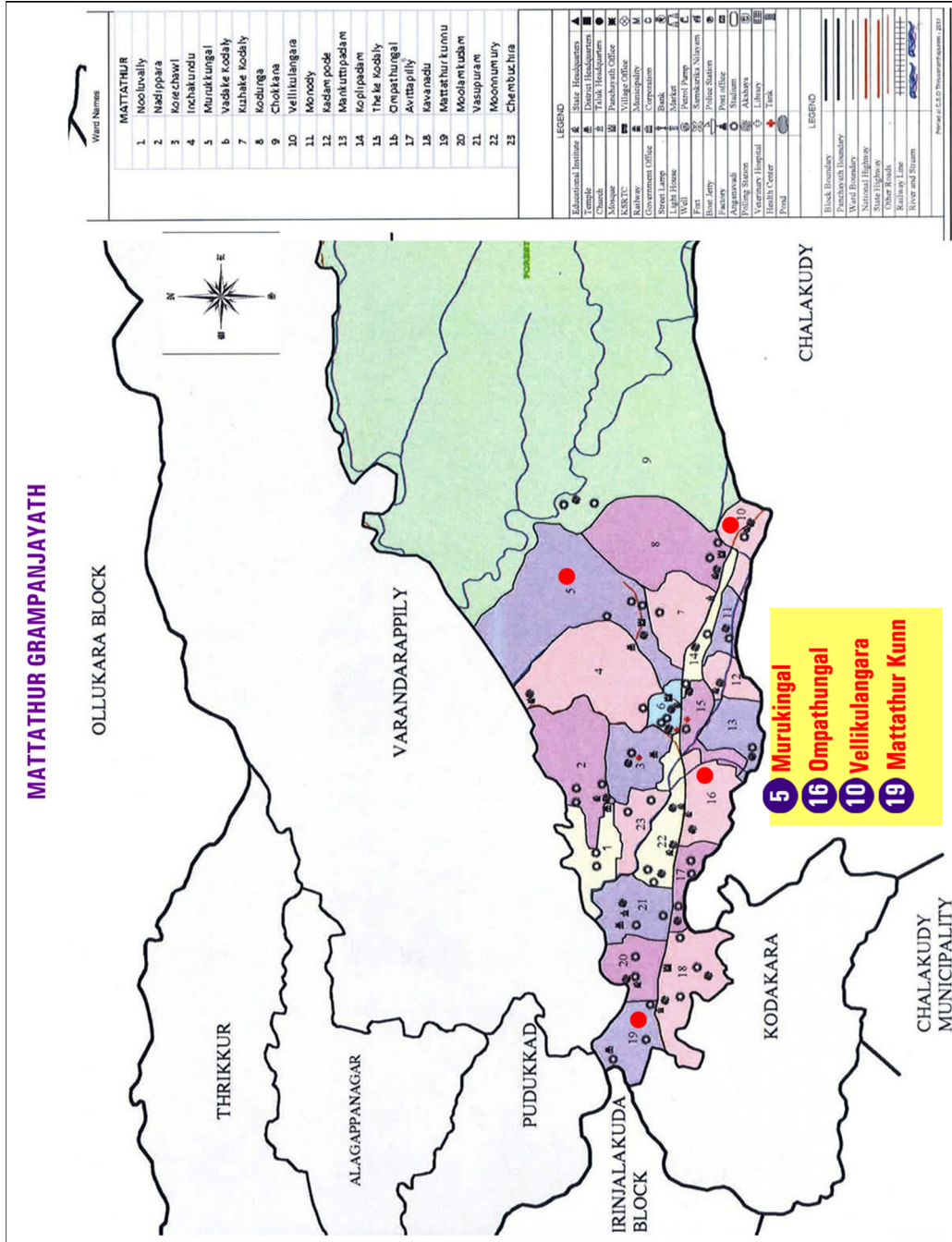
Item code	Items		
COI 1	I am getting help from the community	1	2
COI 2	I have care and support from family members		
COI 3	I have care and support from friends/relatives		
COI 4	Most of the time I have support from the government or any other formal sources		
COI 5	I can survive this situation		
COI 6	I am seeking loans most of the time		
COI 7	I am trying to be economically better of		
COI 8	I have worked even after headship		
COI 9	I am trying to be happy most of the time		
COI 10	I have attained the courage to face the adverse situation in my life		

APPENDIX- II

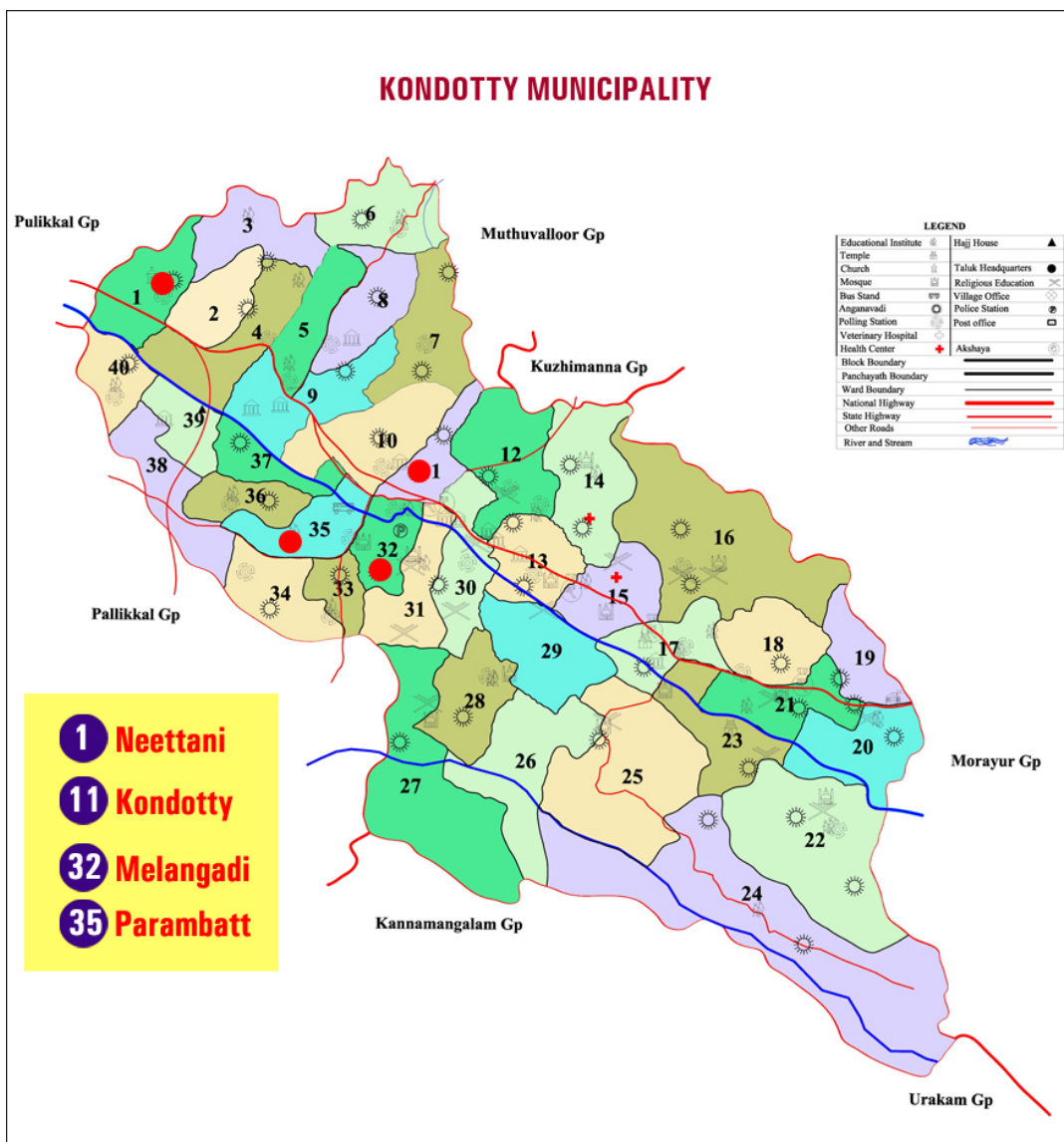
STUDY AREA



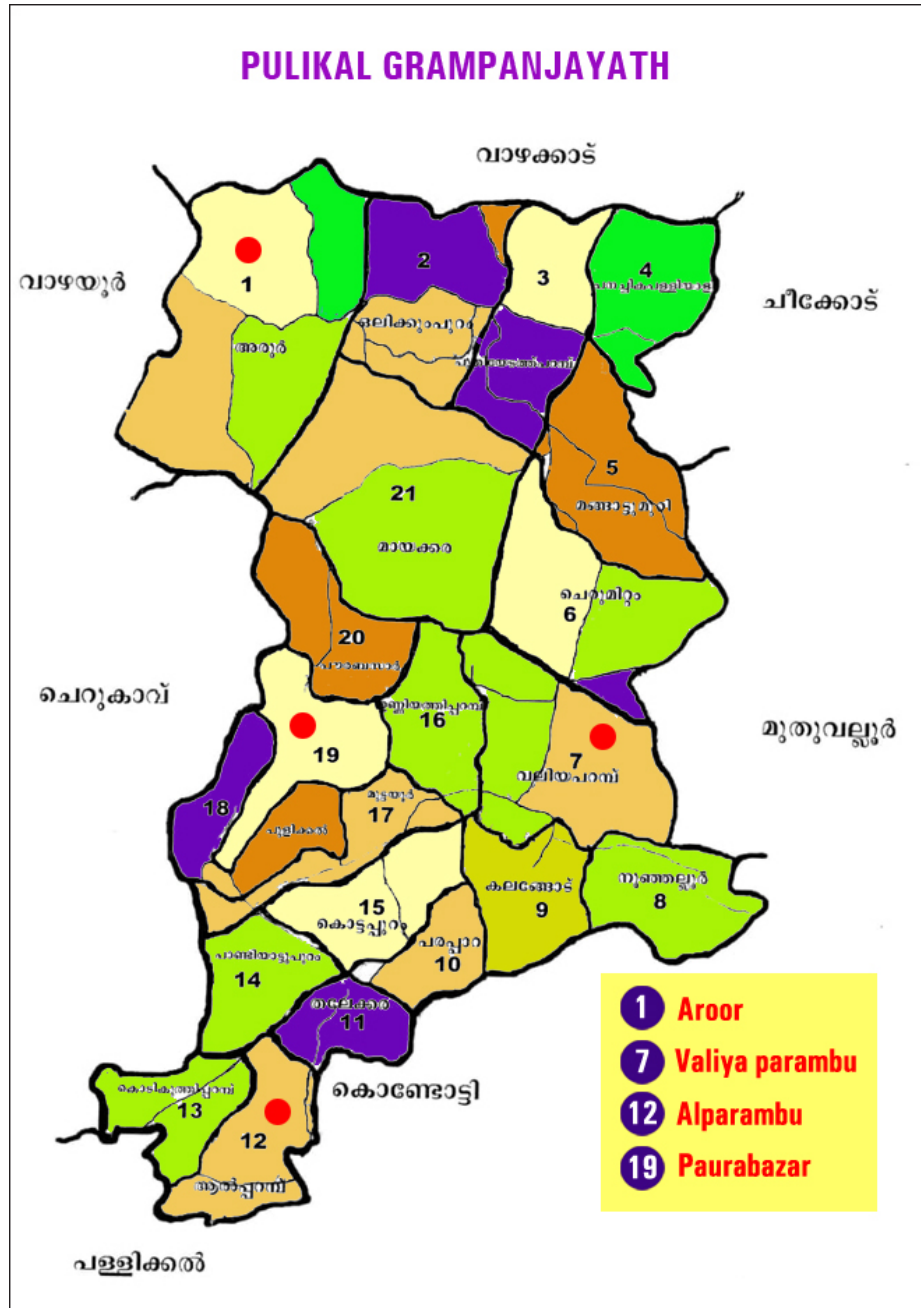
Irinjalakuda Municipality in Thrissur District



Mattathur Grampanjayath from Thrissur District



Kondoty Municipality in Malappuram District



Pulikal Grampanjyath from Kondotty Municipality
