Chapter I

Introduction

The issues regarding women’s role in development process have been increasingly examined over the years. In course of time gender roles have grown (Tina Wallace and Candida March, 1991). The majority of development planners and workers did not fully address women’s position in the development process as they assume that the benefits accrued to male section of the society would trickle down to the female section (Boserup 1970). This is in spite of the principle of equality of men and women recognised in the UN Charter in 1945 and the UN Declaration of Human Rights in 1948.

For the twentieth century rising inequality of incomes has been a dominant trend in the world. For example, the skilled workers of the industrialised countries earn about sixty times more than the poorest group, say the farmers of Sub-Saharan Africa (World Bank: World Development Report 1995).

The causes for such wide disparities are to be identified with respect to the conditions in individual domestic economies and in the international economic environment. Globalisation of economic activities imparted different impacts on people of different countries mainly on the basis of their internal economic development. The workers in countries and groups, which have greater capacity to respond are expected to benefit from global economy. The conditions within developing and transitional
economies, whether these countries succeed in getting onto market-based growth paths, to generate rapid demand for labour and to raise productivity of labour, count in determining the position of labour there.

Major economic transformations are associated with massive restructuring in employment. In this process many jobs may be destroyed and many new opportunities created. Opening up of economies has resulted in about 5 to 15 per cent decline in formal employment in the Latin American and Middle Eastern countries before starting recovery. Many suffered losses due to fall in wages, shifts into lower paying jobs in the informal sector, or unemployment.

Women participating in work outside home and the resultant change in labour market structure placing female labour as a strong component were a major breakthrough of the twentieth century (Smith, 1979). However, female labour force participation rate shows wide divergence among the countries regardless of overall economic development giving no possibility of showing any trend as such (data in Table 1.1). But it is evident that the rate of female labour force participation in advanced economies is high and it showed an increase over years from 1971 to 1991 for countries like USA, UK, and France. But the countries like Japan and Germany a slight decline in the relevant rates is observed during the same period.

The experience of developing countries also is different as the data relating to African countries shows a higher rate of female participation although the economic
situations are very poor in those countries. This may be due to excellent female farming system of the Sub-Saharan Africa (Boserup, 1970) and/or due to high reporting of female labour involved in homestead farming as labour compared to those in India who report as housewives although they are active labourers in homestead farming (World Development Report, World Bank, 1993).

But the experience of India is different as the data show. The female participation rate of India declined from 29.4 per cent in 1971 to 25 per cent in 1991. The several other developing countries show an increase in the rate of female participation; however, the rates are very low compared to those of the advanced economies.

Table 1.1 Female Labour Force Participation in Selected Countries (Per cent)

<table>
<thead>
<tr>
<th>Country</th>
<th>1971</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advanced Countries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>37.1</td>
<td>41.4</td>
</tr>
<tr>
<td>UK</td>
<td>35.9</td>
<td>38.6</td>
</tr>
<tr>
<td>France</td>
<td>36.5</td>
<td>39.9</td>
</tr>
<tr>
<td>Germany</td>
<td>40.2</td>
<td>39.2</td>
</tr>
<tr>
<td>Japan</td>
<td>38.9</td>
<td>37.9</td>
</tr>
<tr>
<td>Australia</td>
<td>31.9</td>
<td>38.2</td>
</tr>
<tr>
<td>China</td>
<td>41.8</td>
<td>43.3</td>
</tr>
<tr>
<td><strong>Developing Countries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>18.9</td>
<td>27.2</td>
</tr>
<tr>
<td>Brazil</td>
<td>22.3</td>
<td>27.6</td>
</tr>
<tr>
<td>South Africa</td>
<td>33.1</td>
<td>35.7</td>
</tr>
<tr>
<td>India</td>
<td>29.4</td>
<td>25.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>9.3</td>
<td>12.3</td>
</tr>
</tbody>
</table>

The U-shape hypothesis which suggests that the relationship between economic development and female labour force participation can be explained with a U-shaped curve, that in the initial stages of economic development employment opportunities available to women get reduced as a result of modernisation in agriculture and traditional non-agricultural sectors.

In spite of the considerable employment in the service sectors of teaching and nursing, the major share of women labourers are crowding in agriculture, household industries and other traditional sectors. Due to sex-based division of labour and jobs, women stick to those works, which are compatible to housework and family responsibilities. This has been cited as a cause of limited work participation of females (Roos, 1985). However, what more important is that now-a-days women are being thrown out of employment and most of the companies of advanced industrialised economies do not prefer to recruit women (Ministry of Labour, Japan: White Paper on Women Labour, 1999). This is not a case of industries alone. Even in traditional sectors of agriculture and allied works, women are facing the same situation. The gender specific impacts of development and growth have to be looked into to isolate the situation of women remaining always the second sex and vulnerable section of the society.

The two approaches to gender and development are: 1) Women in development and 2) Gender and development. The approach of 'Women in development' uses quantitative methods, particularly human capital models. The 'Gender and development' approach rely
on descriptive data and historical narrative, with liberal applications of the word 'empowerment'.

The economic situations of the people of a nation are usually analysed on the basis of changes according to time. Such changes are generally termed growth, decline (recession), etc. The growth is measured in terms of 'National Income' and/or 'Per Capita Income'. The quantitative increase in the national income is considered as growth of the economy. However, the increase in national income alone will not constitute to increase in per capita income. The population statistics also has a relevant role in determining the per capita income. The term 'development' on the other hand not only considers the quantitative increase in national income, however, its distribution also. This means that the generated income should facilitate structural changes in the economy. Thus the term development is defined as growth plus structural changes. The structure of the economy on the basis of distribution of income as 60 per cent of the people are under poverty (or poverty line), another 30 per cent are middle income earners, and the remaining 10 per cent are affluent and high income earners may be the one existing. If we want to show that its structure has changed in terms of the distribution of income itself, the said proportions have to be changed, and if the change in the structure is in favour of equality income distribution and leading to qualitative improvements in the life of the proportion at the lower ends of the income strata, we can denote it as development. This theoretical setting in conventional economics is the base on which the present study is started.
Modern neo colonial development economics, however, extends the view into the introduction of development ideologies in terms of enhanced opportunities. The expansion of one's horizons of activities only will bring forth changes in the structure of the economy. In such views of development economics we see the cause of development as the leading factor rather than a definition to development. This means the basic notion of development has not changed in terms of definition, but what is important is that the causes are evaluated in different ways.

1.1 Issues under study

As far as the society is concerned, the specific distribution pattern of the fruits of growth and development is important regardless of the factors that lead to such growth and development. The most vulnerable section of every society is women. The inequalities are borne by women and men together in almost all cases, but the difference is that women have to bear such inequalities rather long period because of the historical and inherent factors as has been specified by eminent economists like Amarthya Sen. Thus looking into the various aspects of development in relation to gender involves a number of issues. They are mainly, 1) what is the discrete sense of development or how one can clearly state development, 2) what shall be an unambiguous measure of development, 3) what is the historical and present status of women in various economic and socio-political set ups, 4) how women are related to development issues in history as well as in the views of economists and social activists and philosophers, 5) how the term 'gender and development'
are viewed, 6) what are the issues still persist in 'gender and development', and 7) the issues arising for further research.

To approach the various problems stated here, one has to look into the literature on development as well as on gender studies. The issues of gender differences are more related to women and the backwardness they face for time immemorial. The feminist studies and sociological settings also will contribute to the same. The gender and development issues although seems general for all societies and people in the world, such cosmopolitanism can be disintegrated based on the features of the various societies for which located studies can be effected. This means the gender and development issues also can be posted in regional, national, sub-national, and state level. The model can be framed for the macro setting; however, the micro studies can be conducted with empirical data such that inductive reasoning is possible to fit into the broad setting of theory.

1.2 Statement of the Problem

Increased female labour force participation has many positive impacts on life of women as improvement in status, economic freedom, empowerment, greater role in decision-making including fertility decisions and household consumption decisions (Blumberg, 1991; Pillai, 1999). But during the last decade of the twentieth century female labour is being eliminated from their work. This has drastically affected the income of female labourers and thereby the family consumption pattern of female labour families.
Cropping pattern of Kerala changed in favour of perennial commercial crops from seasonal food crops and paddy. This has changed the structure of labour use in agriculture of the state. Female labour saving cropping pattern has released female labourers from their traditional employment. Due to the already remaining reserve army of labour, the female labourers eliminated from their work found it difficult to get a new employment have permanently been evacuated.

In the context of gender impacts on the household consumption pattern, female labour force resorting mainly on traditional sectors especially agriculture, and women are being eliminated from their work, it is important to see the impact of female labour saving shift in cropping pattern of Kerala on the family consumption pattern. The study by Subramanian and Deaton (1991) on consumption data relating to Maharashtra eliminated gender influence on consumption using statistical techniques. Pillai (1999) conducted a detailed study of impact of women's income on family consumption pattern. The study disclosed the commodity combinations of family consumption baskets of households with income earning female members compared to those of families, which have no income earning female members. A number of studies on Kerala agriculture on its various aspects are available. However, no study has yet tried to analyse the impact of shift in cropping pattern on female participation and the income of female labourers consequently affecting the household consumption pattern. The present study is a concrete effort on examining the impact of women labourers released from employment and income on their family consumption pattern.
1.3 Importance of the study

Studies had revealed that women spend a major share of their income on family consumption and spend very less on personal consumption (Blumberg, 1991). On the other hand men spend a greater proportion of their income on personal spending items like liquor, tobacco, hotel food, etc. This general pattern is equally seen among agricultural labourers. In such a situation women being replaced due to female labour saving cropping pattern tend to affect the household consumption significantly. This will have important implications on the welfare aspect of such vulnerable sections of the society, which have to be focused not merely as the beneficiaries of any development plan activities but be targeted as the participating and driving force of development machine.

Studies have substantiated that female income used on consumption of time saving goods like ready wears, fast food, child keeping, etc. as a result of either as decision-making roles of women earners is higher compared to females without income, or for saving household work time by female earners, can augment the consumption pattern as well as market demand for goods (Pillai, 1999).

On the other side of the said, if female labourers are thrown out of employment, the female specifications of consumption spending and the resultant utility levels of the labour families get reversed. Thrown out of employment and income, women labourers as an active decision -maker cease to exist at the strongest and grassroots institution (family) level. The household consumption pattern set up by the significant decisions of female labourers
collapses, defeating the qualitative (welfare) objectives of the structural changes due to development. The policy implications of the same is that if the global societal objectives of higher spending on food and child development (Hopkins, Levin and Haddad, 1994), the development plans and schemes shall focus the gender of the resultant income earner. A change in cropping pattern in favour of the perennial commercial crops may be beneficial on the view of increase in agricultural incomes. But the gender specific reallocations of employment in agriculture sector may defeat, however, the family consumption pattern meeting the subsistence needs of the family as well as child development, because the female labourers being released from their work due to such female labour saving shifts in cropping pattern. The gender impact of the change in cropping pattern on employment of female labourers has not yet been the centre of study. The factors responsible for the shift in cropping pattern also have not been the focus of previous studies. The present study acclaims added significance in this instance.

1.4 Objectives

The study is directed to investigate the impact of female labour saving shift in cropping pattern on female labour force participation and the resultant change in household consumption pattern. Specifically the objectives are:

1. to focus on the impact of change in the cropping pattern on employment, especially of women labourers.

2. to study the impact of changed female employment (unemployment) situations resulting from the shift in cropping pattern on family consumption pattern, and
3. to study how women labourers in agriculture sector got adapted to the situation of changing employment opportunities.

1.4.1 Hypotheses examined

1. Female labour force participation was high under seasonal and annual cropping system rather than under perennial commercial cropping.
2. Female labourers released from agriculture due to change in cropping pattern have not been absorbed into any other job.
3. The family consumption pattern of Female labourers, who were thrown out of employment due to change in cropping pattern drastically deteriorated.
4. The female labourers evacuated from the agriculture sector failed to get adapted in other sectors because of non-availability of opportunity.

1.5 Methodology and data

The sources of data, the details of data collection, the sampling design and the detailed methodology are given as follows.

1.5.1 The Data and the Sampling Design

The data on shift in cropping pattern of Kerala is available from 'Statistics for Planning', the data published by Department of Economics and Statistics, Government of Kerala. The annual data regarding area under crops, production of crops, farm price of agricultural products, etc. are available from the same source. Data regarding female labour force participation, Kerala, are based on reports of the Census of India for the years 1961, 1971, 1981 and 1991. These sources of secondary data were tapped for analysis to ascertain
the agriculture situation in Kerala as well as gender disaggregated labour force participation in the State.

Although researchers usually use the data on consumption expenditure of households available from National Sample Survey (NSS), or data published by the National Sample Survey Organisation (NSSO), they can not be used in the present study as they don’t give gender disaggregated data on income earned nor distinguished the households with female income earner and those without. Because no other secondary data source was successfully identified, a sample study was resorted to collect necessary data to analyse the household consumption pattern over the years. As the primary requirement for incorporating gender analysis into development is to consult with and listen to women so that their roles and resulting needs are better understood, a personal investigation by the researcher was conducted. The data collected through the primary survey forms the main source of data for the study.

The household survey was conducted in Kottayam district of Kerala during February to April 2000. The scope of the survey was also limited to Changanacherry Taluk of Kottayam. The Kottayam district was selected for the study, as it is the district where reclamation of paddy fields for cultivating commercial crops like coconut, rubber, tapioca and cocoa was predominant. The female labour force participation rate of Kottayam is very low (12.13 per cent) compared to that of state rate (15.85 per cent) for 1991 (as seen in Table 1.2). On the contrary the male labour force participation rate of the district is higher (50.37 per cent) compared with the state rate (47.58 per cent). This marked difference in
the participation rates of female and male workers of Kottayam district has to be looked into within the context of a slightly low overall work participation rate for the district compared with that of the state. In spite of these, the literacy rate of the district is very high compared with the other districts of Kerala and India. As per 1991 census the rate comes to 95.7 per cent. The researcher being a native of Kottayam district is familiar with the changes in various fields in the district and this also went in favour of Kottayam being selected as the study area.

Table 1.2 Distribution of Workers, 1991

<table>
<thead>
<tr>
<th>Work Participation Rate</th>
<th>Kerala state</th>
<th>Kottayam district</th>
<th>Changanacherry taluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>47.58</td>
<td>50.37</td>
<td>46.72</td>
</tr>
<tr>
<td>Female</td>
<td>15.85</td>
<td>12.13</td>
<td>10.80</td>
</tr>
<tr>
<td>Total</td>
<td>31.43</td>
<td>31.22</td>
<td>28.64</td>
</tr>
</tbody>
</table>

Source: Census of India, 1991

The district consists of five taluks and 95 revenue villages. There are 11 block panchayats, 73 grama panchayats (rural local self-governments) and four municipalities (urban local bodies). The district has low land of altitude less than 25' and midland between 25' and 250' above mean sea level. The midland is very fertile land rich in luxuriant vegetation. Paddy, coconut, tapioca, pepper and rubber are the main crops grown. Vaikom, Changanacherry and Kottayam taluks and major portions of Meenachil and Kanjirappally taluks come under midland. The remaining portion of Kanjirappally and Meenachil are high lands.
The Changanacherry taluk was selected for the study purposively because the researcher was familiar with the female labour replacement problems in agriculture sector due to reclamation of paddy fields decades back. The very low female participation rate of the study area also has led to the selection of the taluk for the study.

In Changanacherry taluk the rural local self-governments are Madappally Block Panchayat and the Grama Panchayats of Karukachal, Kurichi, Madappally, Paippad, Thrikkodithanam, Vakathanam, and Vazhappally. The urban local self-government of the taluk is Changanacherry Municipality. The rural areas constitute 79 per cent of the population of the taluk and urban 21 per cent. The sex ratio of the taluk is 1013, of rural is 1012 and of urban is 1016. The literacy rate is same for the rural and urban areas of the taluk, 98 per cent for male, 96 per cent for females and 97 per cent for total population (Source: Census of India, 1991). Work participation rate of the taluk shows that female participation is very low compared to the state rate and the district rate (Table 1.2).

After the purposive selection of Changanacherry taluk of Kottayam district, a multi-stage sampling design was used for selecting the households for survey. The study was confined to rural areas where agriculture labourers, present and/or past, was residing. Therefore, at the first stage, a Grama panchayat was selected at random from among the seven Grama panchayats of the taluk.

The Grama panchayat selected at random was Karukachal. The main labour colonies of the panchayat are Anchani colony in Ward III, Umpidi in Ward IV, Kuttickal colony in Ward VII, Santhipuram in Ward IX and Writtenparamba in Ward X. The second
The stage of the sampling design was to select a ward of the panchayat at random. Ward VII was selected to identify the households to be surveyed. In the third stage, the households of the Ward VII were listed such that labour households and others listed as two categories. A total of 100 households were surveyed, of which 76 were labour households and 24 were full-time or part-time farmer households. (The labour households were designed to be 75 and other 25. However, after random selection of the households, while conducting the survey it was found that for one of the respondent households, wage income was the major source of income and agricultural income was meagre and land owned was only 10 cents, although the household was listed as a farmer household. Therefore the household was included in the labour household category and thus the number of households surveyed from labourers and others became 76 and 24 respectively).

The households were selected at random. The household survey was conducted using a structured and pre-tested questionnaire, which was prepared for the purpose of the present study (A copy of the questionnaire used is appended to the thesis). The survey was conducted as direct personal interview method by the researcher herself. One member of the household was interviewed, the farmer respondents were all male, but respondents-labourers were from both sexes although male labourers interviewed were few. The female labour respondents were the major category of informants of the survey.

The reference period for the survey was about three decades prior to the survey date, from 1970 to 1998. Data on employment, wages, income, consumption, area of land owned, cropping pattern, and education were collected from the sample households.
Sampling design

Study Area: Kottayam District (5 taluks and 95 revenue villages—11 block panchayats and 73 grama panchayats, and 4 municipalities)

Selection of Changanacherry taluk purposively for the study (Madappally block panchayat—7 Grama panchayats)

Stage 1
Selection of one Panchayat at random

Karukachal Grama panchayat

Stage 2
Selection of one ward from the panchayat at random

Ward VII
Total households: 475

Stage 3
Selection of sample households at random

Total 100 households
Farmer households 24
Labour households 76
1.5.2 Concepts and Definitions

The concepts and definitions used in the study are as follows:

1. Household: A family living together and taking food from a common kitchen.
2. Labourer: Person engaged in paid wage work outside house.
3. Farmer: Person whose main work is agriculture and/or cultivates land although she/he has other equally important jobs at the same time.
4. Family income: Total of all incomes received by members of the family plus agricultural income and other incomes received by the family as rent, interest, etc. for a month.
5. Personal income: Income earned by a person for a month.
6. Family consumption spending: Spending of money on total consumption of all commodities of consumption the family makes.

1.5.3 Methodology

The important aspects under investigation of the present study are: (i) impact of change in cropping pattern on Kerala’s agriculture performance and on employment of women and (ii) impact of resultant changes in female employment (unemployment) situations on family consumption pattern of the labour households. The methodologies adopted to study these aspects are given as follows.
1.5.3.1 For studying the impact of change in cropping pattern on Kerala's agriculture performance and on employment of women

To study the impact of shift in cropping pattern on Kerala's agriculture performance, the time series of the area under major crops cultivated and the production of crops, from 1962/63 to 1998/99 were analysed. Data relating to Kerala state and ot Kottayam district were used for analysis. The data used is secondary from *Statistics for Planning*, Department of Economics and Statistics, Kerala. The employment of women in agriculture sector of Kerala was studied using the data on employment according to industrial categories, given in Census reports for 1961, 1971, 1981 and 1991. The present employment and female work participation rates were looked into from Census reports, 1991, for the district of Kottayam and for the Changanacherry taluk.

Growth rates of area, production and yield could be estimated using different functional forms (Reddy, V.N., 1978). However, the components of time series model viz. seasonality, cyclicality and irregularity hold their effect on trend growth (Snigdha Chakrabarti and Ashok Rudra, 1990). And if the periodicity of the swings in trend (up and down) is not of equal order, they have a significant bearing on secular trend (Anandaraj, R., 1992). So the nature and periodicity of cyclical movements was looked on first to choose an unbiased estimate of trend. The OLS method was used to depict the trend of the series over time. The standard semi-log linear model for the exponential growth function,
Log $Y = \alpha + \beta T + u$  \hspace{1cm} (1)

where $Y$ is the dependent variable, $T$ is the time (independent variable), $\alpha$ and $\beta$ are the parameters of the model (respectively the intercept and slope) and $u$ is the error term, was used to estimate the trend of the series.

The movements in growth or swings in trend, which are due to cyclical and irregular fluctuations was analysed by detrending the series. To eliminate irregular fluctuations from the detrended series, the conventional method of moving average was employed. Using the three-year moving average method the detrended series was smoothened for comprehending the cyclical movements in output. The graphical method of plotting the smoothened series was relied on to have a visual picture of the cyclical fluctuations in growth and periodicity of the same.

Annual average growth rate was used for analysing the growth performance period-wise. The following form of equation was used to estimate the annual growth rate.

$$Gr = ((Y_{t+1} - Y_t)/Y_t) \times 100$$  \hspace{1cm} (2)

Arithmetic Mean = $Gr = \frac{\sum_{i=1}^{n-1}(Y_i/Y_{i-1})}{n-1}$  \hspace{1cm} (3)

The sources of growth in production are isolated by decomposing the growth rate into area effect, cropping pattern effect, yield effect and the mixed effect due to
simultaneous change in both cropping pattern and yield (Minhas, B.S. and Vaidyanathan, A., 1965, pp.230-252). The decomposition equation used for this purpose was,

\[ Q_t - Q_o = A_t \sum_c a_{ct} Y_{ct} P_c - A_o \sum_c a_{co} Y_{co} P_c, \quad (4) \]

as

\[ Q_t - Q_o = (A_t - A_o \sum_c a_{co} Y_{co} P_c + A_i \sum_c a_{ct} a_{co} Y_{ct} Y_{co} P_c + A_t \sum_c a_{ct} - a_{co})(Y_{ct} - Y_{co})P_c \]

\[ \text{.................} \quad (5) \]

where, \( Q_t \) = value of gross agricultural output at constant prices (\( P_c \)) during period \( t \), \( A_t \) = gross cropped area during period \( t \), \( a_{ct} = (A_{ct}/A_t) = \) proportion of area under crop \( c \) (\( A_{ct} \)) to the gross cropped area during period \( t \), and \( Y_{ct} \) = physical output per hectare of crop \( c \) during period \( t \).

The first three components of the equation (5) represent respectively the contribution of change in area, cropping pattern and yield in absolute change in the value of gross agricultural output. The last term shows the interaction effect of changes in cropping pattern and yield in the growth of output.

Instability is defined as the deviation from trend or the variation, which is not explained by the regression fit. Trend is the mean of the time series and thus the coefficient of variation could be treated as a measure of instability; it being a measure of dispersion of observed values of the variable from its arithmetic mean value. However, if
there is a strong trend element in the time series, co-efficient of variation of the time series can be misleading. To avoid this problem, standard deviation of the detrended series can be used in estimating the co-efficient of variation. Therefore, a reliable measure of instability in production and yield is used in this study, by estimating the co-efficient of variation.

Total area under food crops and non-food crops were analysed using the proportion of both values in the total and represented as percentage. Thus,

\[
\text{Proportion of area under food crops} = \frac{\text{Area under food crops}}{\text{Gross cropped area}} \times 100
\]

and,

\[
\text{Proportion of area under non-food crops} = \frac{\text{Area under non-food crops}}{\text{Gross cropped area}} \times 100
\]

The change in cropping pattern of the farmer households was analysed at micro level using the information collected through the sample survey of the farmer households. The questions included in the schedule for survey as 'what was the first shift in cropping pattern, second shift in cropping pattern and third shift in cropping pattern?' gives information regarding the changes in cropping pattern adopted by the respondent farmers during the past three decades. In addition to this, the information on the cropping pattern annual over years also has been inquired into.
The industrial category-wise and gender disaggregated employment data have been analysed taking proportion of employment under each category out of total employment. Comparative static study of the change in employment pattern with the decadal data from Census reports is resorted to for examining the employment pattern.

1.5.3.1 For studying the impact of changes in female employment (unemployment) situations on family consumption pattern of the labour households

The micro level data on female labourers employment in agriculture over years has been collected in the sample survey for the present study. The questions used in the schedule of survey as: ‘for how many years you have been a labourer?’, ‘what is the major change in primary employment?’, ‘the year of change in primary employment’, etc. give relevant information regarding the employment pattern of the respondent labourers over the reference period of the survey.

The income and consumption spending analyses have been conducted based on the current income data. The pattern of income use into consumption by labourers disaggregated into personal consumption and family consumption uses also is analysed. However, it is important that the usual consumption studies based on expenditure on each and every items of expenditure of the consumption basket, as is the procedure of National Sample Survey studies, has not been resorted to here. The purpose of study of the consumption studies for the present study is to see the change in the pattern of consumption over last three decades, during which female labourers in agriculture had employment to be compared to how it is under the changed employment scenario. In addition to this, the
comparative study of the present situation of the labour families of employed female
labourers and those of released female labourers from their employment and who remain
unemployed due to lack of opportunities to be absorbed into any other sector also is done.

The Theoretical Framework of Study of Household consumption Pattern

Household consumption behaviour is usually analysed on the basis of theoretical
formulations of the utility theory of demand. Individual or household demand functions for
different commodities are derived from constrained utility maximisation function. The
study of household consumption pattern by Earnest Engel in 1857 is based on household
income as the explanatory variable to demand function. From among the determinants of
demand income, taste and fashions, time, social set up, etc., income is the most important
determinant. That is, expenditure on \( i^{th} \) commodity by \( j^{th} \) household (\( E_{ij} \)) is a function of
total income of the \( j^{th} \) household (\( Y_j \)).

\[ E_{ij} = F(Y_j). \]

Although income reported by households usually suffer errors due to under
statement and the proxy of expenditure by household is used in empirical studies of
consumption function, it is not practical in this study. In the present study income of
household and the income of female earners separately have been used as the explanatory
variables, although household consumption demand for individual commodity items are
not looked into. Total monthly consumption expenditure out of total monthly income has
been studied as well as the consumption level attained and maintained by the household at the changed situations of employment and income. Consumption pattern of households with female earners is significantly determined by the preferences of female earners. Not only this, female income is a deciding factor in the maintenance of labour household consumption at a higher level.

If income earned by male member(s) of the household is $Y_{mj}$ and income earned by female member(s) of the household is $Y_{fj}$, then total income earned by the household,

$$Y_j = Y_{mj} + Y_{fj}.$$ 

Thus the expenditure by household is determined by the income earned both by male and female members of the household.

$$E_j = F(Y_{mj}, Y_{fj}).$$

Thus a gender disaggregated analysis of influence of income on consumption demand for any commodity if theoretically possible. This conventional wisdom is being transformed for the present study that the gender disaggregated analysis of influence of incomes on expenditure for family consumption basket (total magnitude of household consumption expenditure) is possible irrespective of the commodity(s) in the consumption basket. That is, total family consumption expenditure of the household ($E_j$) is a function of incomes earned by male and female members of the household.
\[ E_j = F(Y_{mj}, Y_{ij}). \]

The limitations of the analysis are that the demand elasticity for each commodity cannot be used as the total family expenditure is used, Engel’s ratio is not relevant, and only descriptive study of the influence of income by male and female members is resorted to rather than using any econometric model.

1.6 Plan of the study

The study is divided into eight chapters including the introduction and concluding chapters. The importance of the study, the objectives and the important hypotheses, the detailed methodology, the sampling design, the concepts used, the plan as well as the limitations of the study are presented in the introduction chapter. The second chapter gives the basis for the problem setting surveying the relevant literature. The reviewed earlier studies have direct or indirect relevance to the present study. The third chapter explains female labour force participation. The work participation at state level, study area level, selected taluk level and panchayat level are analysed. The industrial category-wise data as time series of Census data from 1961 to 1991 are used for analysis of state level participation rates in this chapter. The fourth chapter presents a detailed analysis of shift in cropping pattern of Kerala state as well as an analysis of the production pattern of major crops cultivated in the state. The study district level data analysis vis-à-vis state level data is also included in this chapter. The fifth chapter gives the analysis of the sample data based on respondents specific characteristics. The characteristic variables relating to farmer
households and labour households are analysed separately in this chapter. Chapter six gives impact of shift in cropping pattern on employment of female labourers in agricultural sector at the micro level. In the context of change in cropping pattern, it is analysed how female agriculture labourers got adapted in the situation of female labour saving shift in cropping pattern. The analysis in this chapter is purely on the basis of sample data. The impact of changed female agriculture labour employment situation on family consumption pattern is analysed in chapter seven. In the last chapter, the summary of the findings of the study and the major conclusions that emerge out of that are given.

1.7 Limitations of the study

The present study is an explorative one because no other study has attempted in this area in Kerala. The studies on Kerala agriculture performance and shift in cropping pattern ignored the gender specific impacts it brought on employment, income and the consumption pattern of households. Likewise, consumption studies in India ignored gender specific impacts and gender specific explanatory variables. The major secondary sources of data like NSS do not give gender disaggregated data for analysis of consumption. The present study also deviates from the conventional methods of analysing demand of individual commodities to arrive at consumption function related to income, as only aggregate consumption expenditure on family consumption basket is taken into account in relation to gender disaggregated incomes. Data constraints are also seen as the shift in cropping pattern is looked into as female labour saving.
Also inaccuracy of income data collected constrains the analysis. None of the respondents reported to have savings. It is both shocking and interesting information. The constraints in information because of a long reference period also have to be noted. The informants were egocentric to reveal the accurate information regarding their consumption pattern in the early decades of the reference period. Lack of similar studies also constrained the present study. The limited sample also forces us to view the policy conclusions emerging out of the study with reservation. Opportunities for further study in the same area remains with vast scope and comparing different region specific data for drawing strong policy conclusions.
References


