DIVERSIFICATION IN EMPLOYMENT STRUCTURE AND STATUS OF RURAL WOMEN WORKERS IN ERNAKULAM DISTRICT

Thesis submitted to the
Cochin University of Science and Technology
For the award of the degree of
DOCTOR OF PHILOSOPHY
(Under the Faculty of Social Sciences)

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CERTIFICATE

This is to certify that the work entitled " **Diversification in Employment Structure and Status of Rural Women Workers in Ernakulam District** " is a bona fide record of the research work done by **Smt. Manjula K.** under my supervision and guidance. This work has not formed the basis for the award of any degree, diploma or associateship in any University. The thesis is worth submitting for the Degree of Doctor of Philosophy under the Faculty of Social Sciences.

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CHAPTER I

INTRODUCTION

1.1 The Problem

Economic development refers to the structural changes in production and employment pattern, which enhance the productivity of labour and earnings of workers. As the economy shifts its productive activities from the primary sector to the secondary and tertiary sectors, workers also move from farms to factories and services, from rural to urban areas and from informal to formal work. The vast empirical studies of Colin Clark (1940), A.G.B.Fisher (1952) and Simon Kuznets (1966,1969) have supported this theory and regarded this sectoral shift as an index of development in developed countries.

However, in developing economies one cannot expect the production and employment structure to move at the same pace (Bhalla 1997). There it seems to be a general rule that employment structure changes slowly and gradually, particularly so in rural areas. Consequently, diversifying the employment structure by increasing rural non-agricultural activities is often suggested and adopted as a policy measure to speed up the development process in these countries. *'Diversification'* in this context is used broadly to indicate the extent of departure of rural workers from the traditional primary sector occupations to those in the secondary or tertiary sectors.

Compared with the other States of the Indian Union, Kerala has an 'apparently developed' (Eapen 1994) employment structure with primary sector absorbing a lower percentage of the workforces. The reports of the National Sample survey Organisation (NSSO) for the year 1999-2000 reveal only 42.8 per cent of males and 59.8 per cent of females in rural Kerala as engaged in

agriculture. This is against the national averages of 71.4 and 85.4 per cent of male and female workers. Moreover, there has also been statistical evidence of a progressive shift in employment to the tertiary sector, often bypassing the secondary sector in Kerala.

Despite the attractive wages prevailing in the primary sector and the existence of considerable unemployment in rural areas workers are not willing to take up agriculture as their primary occupation in the State. They show an excessive eagerness to get employed in the non-agricultural sectors even in areas far away from their villages. The result is a highly diversified employment structure in the macro statistics. The hitherto available literature on the topic suggests increased literacy and social development as reasons for the exit of workers from the primary sector. It may also be due to the inter-sectoral shift of workers that some regions of the State experience acute shortage of agricultural labourers. The present study mainly focusses on the nature and direction of this employment diversification among the rural workers especially women workers.

Another phenomenon that is to be noted along with diversification of employment is the change in the employment status of workers in the sector to which they have shifted. Employment status refers to the terms and conditions under which a person gets employed and it is an index of the nature and quality of work that people are getting into. When a rural economy diversifies the workers may rise in status either as self-employed workers or as regular employees. At the same time it is also possible that their status may be lowered to that of casual wage earners. While in most developed nations workers move to regular jobs or become self-employed, in developing countries like India, they move to the less advantageous position of casual labourers. The quinquennial rounds of NSSO during the 80s and 90s lend evidence to these facts. Thus in India, though there occurred a progressive shift of workers to non-agriculture, it has also been characterised by increased casualness of workers. Most of the

States in India, including the State of Kerala, follow suit. This feature currently discussed in literature as '*casualisation*' is a matter of real concern, for it suggests that at any given level of employment diversification, the workers fail to get integrated to the development process.

To understand the impact of diversification on the employment status one needs to probe into the factors that have led to that process. If the rise in non-agricultural activities is due to the increased agricultural productivity through consumption and demand-induced linkages it is no cause of concern. On the other hand, if diversification is due to distress and sustained pressure on agricultural land or due to stagnation in that sector, it does pose a problem. Simultaneous operation of both these factors is also a possibility. This necessitates the identification of the major determinants of the diversification process. Whether this sectoral shift is a result of distress conditions or an indication of new opportunities for the workers is also a pertinent question that needs to be answered by this enquiry.

Similarly there is also the need to identify the determinants of employment status. The dimensions of job quality and job characteristics have to be investigated to decide on the casualness or otherwise of a particular job. If the emerging changes in the rural non-agricultural sector are likely to ensure any stability in employment and income to these rural women, it can be treated as a positive process. An increase in wages and improved working conditions, are also signs of betterment. On the other hand, if it has resulted in switching permanent agricultural labourers to daily wage labour, with low bargaining power for wages and other terms of work the shift has surely been a negative process. Similar is the case with self-employment and regular employment, wages and the nature of contract being the crucial factors.

1.2 Women Workers and Diversification

It is a well-established fact that in the process of development women workers are always allotted the 'nooks and crevices' even in developed countries. In developing nations they are always over-represented in the primary and informal sector jobs. Most often they willingly ignore the employer's failure to implement government-legislated standards (World Bank 1995). Identifying and explaining the determinants of women work participation in various sectors is a major challenge for all the studies related to labour market. Boserup's study of the role of women in development emphasises discontinuity in female participation associated with the transformation from rural agricultural to urban industrial societies. This U-Curve hypothesis of an initial fall due to either withdrawal or exclusion is supposed to have substantial regional variations (Boserup 1970). Still most studies on women's work and development strike a pessimistic note.

Against this background the case of rural women workers in India is not much different. With more than 85 per cent of women workers still employed in primary sector, development seems to have eluded them. The NSSO statistics for the year 1999-2000 reveals that only 299 per thousand of rural women work for a living in India as against the male participation of 531 per thousand. Again, of these women workers one fourth are employed in the subsidiary category and of the rest 39.6 per cent work as casual labourers (NSSO 2001). Sectoral shift of women workers is only a recent development at the national level and has started to draw the attention of scholars. But these attempts had only been a part of their more varied objectives. The available evidences until now suggest both distress-led diversification and growth-led diversification in operation in rural India.

At the same time among the Indian States, Kerala is one that records a low level of work participation and a high degree of unemployment in official statistics. The situation is even worse for the women workers of Kerala, their work participation being 23.8 per cent and the unemployed constituting 20 per cent of the labour force (NSSO 2001). That this should be so is indeed an irony in Kerala - a State with very high female literacy and other social welfare indicators. It is quite evident that the levels of social progress are not reflective of economic progress.

Similarly a shift in employment is not necessarily a pointer to improved economic status of workers. The status distribution in tune with the national trend shows a sustained and substantial decline of workers in self-employment. Meanwhile, contrary to the national trend, it shows a decline in wage labour and increases in regular employment. Still, occupational sex segregation is severe especially in the tertiary sector to which these workers have shifted. Even women with education, crowd into these jobs that are sometimes semi-professional like teaching and nursing. Most often their work happens to be casual and irregular as domestic helpers, sales personnel, accounting staff etc. It is not uncommon that we come across women workers with similar human capital and experience having different wage contracts.

It is possible that all these developments have resulted in the withdrawal of women workers from the labour market in the rural as well as urban areas. Then the low-level participation of women workers is partially attributable to this factor also. Therefore a micro level enquiry is worthwhile regarding the rural women workers in Kerala. The study is also intended to cover the extent of diversification and the factors influencing it across the districts of Kerala over the census years 1981-2001.

1.3 Objectives

i) To highlight the sectoral variations in rural employment structure in Kerala.

ii) To identify the major determinants of diversification.

iii) To examine the process and pattern of rural non-agricultural activities undertaken by women in the selected villages of Ernakulam district.

iv) To assess the consequences thereof on the employment status of rural women workers in the sample.

1.4 Hypotheses

i) In Kerala the present employment structure favours the employment of more women in non-agricultural activities than in agricultural activities.

ii) Variables indicating development influence the process of diversification rather than those indicating distress.

iii) There is diversity in the process of diversification itself in the three blocks.

iv) The sectoral shift and the status shift in employment are not dependent.

1.5 Database and Methodology

The process of diversification in this study is analysed both at the regional and at the household level. To analyse the regional adjustments of sectoral diversification in rural Kerala and thereby to test the first two objectives of the study we utilise the secondary data. The reports of the NSSO, Directorate of Census Operations (Census), Directorate of Economics and Statistics (DES) and the Centre for Monitoring Indian Economy (CMIE) have been extensively used for this purpose.

The NSSO, under the Department of Statistics of the Government of India collects data on employment and unemployment in its quinquennial surveys. So far it has undertaken six such surveys, the latest being the one conducted during the 55th round for the year 1999-2000. The study has made use of these NSSO surveys as a framework of the national and State level rural work participation in non-agricultural sector.

Yet another source of labour force data is the decennial Census estimates. The study has included the Census estimates also along with the NSSO results as alternative estimates. Besides, the available provisional results of Census 2001 are included in the study. Nevertheless, the study depends on NSSO data for the structural framework because of the following reasons:

First, this data is considered to be superior to the Census data in the sense that it reflects a better enumeration of the subsidiary workers. Second, a detailed classification of the sectoral composition of workers is not yet available from the 2001 census, whereas we get this information for the country as a whole and for States from the NSSO 55th round. Third, NSSO is the only source of information on the employment status of workers by gender and residence.

But, NSSO data is available only up to the State level and there is no district-wise break-up. This is an important obstacle that we came across in our study. The sectoral variations in employment structure at the regional level therefore have to be obtained from the Census reports, as this is the only available source for the same at the disaggregated level of districts. Of the Census figures, researchers in general consider the 1971 estimates as gross underestimates owing to the exclusion of marginal workers, especially of female workers. So we have mainly made use of the 1961,1981, 1991 and 2001 census figures for analysing the changes in employment structure.

From the analysis of the secondary data we get only a broad picture of the female rural employment structure of Kerala in comparison with that of the nation as a whole. To some extent the dynamics of the growth of female non-agricultural employment in the rural areas of the districts of Kerala has also been brought out. But beyond that it does not furnish any information on the regional diversity in the process of diversification of employment among rural women. Nor does it provide any reason for these behavioral patterns. The resultant changes in the status of workers are also to be unravelled. To fill these vacuums left in the secondary data a primary survey was carried out by selecting and analysing a sample of 450 households. The survey was conducted within a six-month period from 1st of January 2001 to 31st of May 2001. The procedure followed in the selection of the sample households is as follows:

1.6 Survey Design

1.6.1 Stage I - Selection of District

The district selected for micro level analysis is Ernakulam having a rural female work participation rate of 47.84 in non-agriculture. This rate is relatively closer to the State average of 42.9 as most other districts have larger variations

(Census 1991). Besides, the district ranks first in the State with regard to the share of income from non-agricultural sector not just in the current year, but all through the past decade. If we observe other development indicators, it can be seen that the district ranks high in matters of female literacy, education, health and social welfare activities. It is also a district, where a fairly high percentage of sectoral shifts among rural women workers have occurred between 1981 and 1991.

1.6.2 Stage II - Selection of C.D.Blocks

Ernakulam district consists of fifteen blocks. On the basis of the Percentage of the Rural Female Non-agricultural Workers (PRFNAW) in the census reports of 1991 these blocks are first divided into three groups. From each of these groups showing low, medium and high levels of participation one block each is selected as the second stage-sampling unit. To avoid extremes and to get a more representative sample we have selected the blocks that happened to be medians of the three groups of the distribution. Thus Vadavukode, Vazhakulam and Vyttila blocks are selected as those representing the lower, medium and the higher groups respectively. Selection of the blocks is shown as Appendix I.

1.6.3 Stage III - Selection of Villages

In the third stage, the villages for detailed household enquiry are selected. From the three blocks, two villages that had a female non-agricultural participation close to that of the corresponding blocks are selected. Thus Aikkaranadu and Thiruvaniyoor get chosen from the Vadavukode block, Edathala and Vazhakulam from the Vazhakulam block, and Kumbalam and Maradu from the Vyttila block. The selection of sample villages is also shown in Appendix I.

1.6.4 Stage IV- Selection of Households

In order to control the workload at the stage of listing of households, ward-wise distribution of female non-agricultural workers in the 1991 census was subjected to scrutiny. Still, due to the reorganisation of panchayath wards after 1991 we could not directly go for the identification of wards on this basis. So ward divisions of the panchayath for the recent panchayath elections were followed. With the help of experienced panchayath members and field staff of the panchayath offices, boundaries of these wards were located. From among these panchayath wards three each having high female non-agricultural participation were identified for selecting the sample households.

As the number of households having women workers is not available from any source we had to conduct a listing operation in the wards for the identification of sample households. Only those households with at least one-woman worker were chosen for listing and their basic details for identification were collected. Seventyfive households with women workers were listed from each of the three wards of the villages.

After the listing process we grouped together the households in the wards in each village. As the universe was unknown and considered sufficiently large a disproportionate sampling technique was adopted. Thus 75 households were selected at random from each village to reach a predetermined sample size of 450 households. These households from 18 wards of the 6 villages selected from the 3 blocks of Ernakulam District constitute the final units of sampling. The sampling frame is illustrated below in Table 1.1.

Table 1.1 Sampling Frame

STAGE I: SELECTION OF DISTRICT					
STUDY AREA			ERNAKULAM DISTRICT (15 C.D.Blocks)		
STAGE II SELECTION OF C.D.Blocks					
LOW RFNAW VADAVUKODE (6 panchayaths)		MEDIUM RFNAW VAZHAKULAM (6 panchayaths)		HIGH FNAW VYTTILA (2 panchayaths)	
STAGE III SELECTION OF VILLAGES					
AIKKARANADU	THIRUVANIYUR	EDATHALA	VAZHAKULAM	KUMBALAM	MARADU
STAGE IV SELECTION OF HOUSEHOLDS - 75 HOUSEHOLDS FROM EACH VILLAGE.					
TOTAL: 450 Households					

1.7 Techniques of Data Analysis

In this section we present the main techniques used in the analysis of both the secondary and the primary data.

1.7.1 Analysis of Secondary Data

The first objective of highlighting the employment structure at the regional level is examined in the study by using simple percentages, coefficient of variation, trend projections, independent and paired sample tests etc. The data for this purpose came from NSSO and Census reports.

There are innumerable variables that affect the participation of workers in non-agriculture. When it comes to female workers the list of factors is further extended, as we have to consider their familial and maternal responsibilities. Then the identification of factors or underlying variables that explain the pattern of correlation within the observed variables becomes difficult. In most of the earlier studies that enquire into the determinants of non-agricultural employment at the national and regional level the basic tool of analysis adopted is Multiple regression. But in this case we could not use regression.[1] So in order to study the second objective regarding the determinants of diversification at the regional level we have made use of factor analysis.

1.7.2 Factor Analysis

Factor analysis is always considered the best tool in situations where there is the need of data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. In the present study it has helped us

1) To study the correlations among a large number of interrelated and quantitative variables influencing female non-agricultural employment. By grouping the variables into a few factors, the variables within each factor are found to be highly correlated compared to variables in other factors.

2) To interpret each factor according to the meaning of the variables in that factor.

The factor analysis model expresses each variable as a function of factors common to several variables and a factor unique to the variable[2].

For factor extraction we have used the Principle Component Analysis (PCA). This is to find out the first linear combination of variables that accounts for the largest amount of variation in female non-agricultural employment, the second for the next largest amount of variance in a dimension independent of the first and so on. Successive components explain smaller and smaller portions of the total variance and are independent of one another. In each solution there are as many components as there are original variables. The variances of the components are commonly called eigenvalues (also called characteristic roots or latent roots). The size of the eigenvalues describes the dispersion or shape of the cloud of data points in a multivariate space that has one axis for each variable. After the initial factor extraction the results are again rotated to make larger loadings larger than before and smaller loadings smaller than before. This procedure is supposed to help in giving more meaningful interpretations to the subject area at hand.

1.7.3 List of Variables

The main variables taken for this part of the study are given in Table 1.2. The sources of these specified variables are listed in Appendix II.

Table 1.2

Variables used in Factor Analysis

AFSIZE	Average Family Size
ASHOLD	Average Size of Land Holdings
DENSITY	Population Density per sq. Kms
IDIND	Infrastructure Development Index
MWPR	Male Work Participation Rate
NDP	Net Domestic Product
NSA\TCA	Ratio of Net Sown Area to Total Cropped Area
PBSPOP	Percentage of Below Six Population
PANAU	Percentage of Area under Non-Agricultural Use
PANFC	Percentage of Area under Non-Food Crops
PRFLIT	Percentage of Female Literates
PUPOP	Percentage of Urban Population
SEXRATIO	Sex Ratio
SNANDP	Share of Non-Agricultural sector in NDP

1.7.4 Analysis of Primary Data

The regional approach is of no use to understand the reasons and processes by which an individual worker chooses to diversify his or her

economic activities and the consequences thereof in the economic status of the worker. So, at the micro level the individual decisions are focused and diversification is viewed from the perspective of an individual worker's choice in a household. Then the decisions regarding whether to diversify or not from the part of the individual workers, is scrutinised with the help of a separate binary logit model-the diversification model. The factors that discriminate the group of diversified workers from primary sector workers are also identified with the use of a discriminant analysis.

1.7.5 Logit Model and Discriminant Analysis

By using the logit model we shall determine the factors behind the diversification of employment of rural women workers. In the general logistic model a qualitative dependent variable is expressed as a function of several explanatory variables, both qualitative and quantitative[3] (Fox, 1984). In our case the dependent variable is diversification of workers and the explanatory variables are grouped into three categories representing individual, familial and job related characteristics.

Discriminant analysis is a tool that is used to identify the factors to discriminate between groups. It also examines the relative importance of each of these factors and arrives at a discriminant score. From the primary data collected a number of variables that may have an influence on diversification was selected by using the criterion of minimum and maximum partial F Value[4]. The variables selected include general education, household size, years of experience, number of days employed last month, monthly income, age, number of non-agricultural members in the family, index for general and social participation.

1.8 Limitations

The study is concentrated in six villages of Ernakulam district. Even within these regions we have noted diverse employment patterns. So the findings of the study cannot be generalised for the State as a whole. Nevertheless, the villages are considered typical to represent the blocks and the district as they were chosen from three different agro climatic regions of the district to which all the villages in the district can be classified.

The study has made use of the 1991 Census estimates for the sampling frame due to the non-availability of other sources of data at the time of primary survey. Still, we have incorporated the available census figures of the year 2001 for the analytical purposes.

Even though an all-out effort has been made to make the invisible work of rural women visible by probing questions, the study has not accurately quantified the amount of housework done to avoid the biases in the process of measurement.

1.9 Plan of Study

After the introductory chapter that presents the objectives and sketches the methodology, we turn to a conceptual explanation of the process of diversification and the categorisation of workers according to their sector and status in the second chapter.

The third chapter goes through the existing literature highlighting the major hypotheses formulated up to this time and states the hypotheses of the present study.

In the fourth chapter is given the employment structure in rural Kerala and the process of diversification in the State.

The factors identified behind the process of diversification at the regional level are discussed in the fifth chapter.

Chapter six presents a profile of the study area -Ernakulam District- and that of the sample villages and households.

The seventh chapter analyses the process, causes and consequences of diversification from the perspective of the rural women workers in the sample households.

The eighth and final chapter will present the broad conclusions that emerge from the study.

Notes

[1]As Kerala has only 14 districts we have only limited observations to run regression. Still, when such an exercise was done it was found that there are not enough degrees of freedom, and none of the variables had significance in the model.

[2] Factor Analysis model used in the study takes the form,

$Z_j = a_{j1}F_1 + a_{j2}F_2 + \ldots + a_{jm}F_m + U_j$

Where

Zj = the jth standardised variable

Fi = the Common factors

M = the number of factors common to all the variables

Uj = the factor unique to the variable Zj

Aji = the factor loadings

[3] The Logistic Function used is as follows.

If P is the probability of being diversified then

$P= 1/1+e^{-z}$

Where

z is the linear combination

$Z = B_0+B_1X_1+B_2X_2+\ldots\ldots+B_PX_P$

$B_0,B_1\ldots.B_P$ are coefficients estimated from the data and $X_1,X_2\ldots.X_P$ are the independent variables that are supposed to influence the dependent variable. The logistic model requires far fewer assumptions concerning independent variables and even when the assumptions are required it still performs well.

[4]The minimum F Value to enter a variable is 3.84 or the minimum probability of F value to enter a variable is 0.05.

CHAPTER II

CONCEPTUAL FRAMEWORK

In this study we observe and analyse the changes and choices made by the rural women workers who get employed in different sectors of the economy. The word diversification is therefore used to conceptualise the growth of non-agricultural employment. After examining the macro level statistical evidences regarding the existence of a shift from agricultural sector, we intend to enquire further into the causes and consequences of these sectoral shifts at the micro level. Hence it is necessary that we have a conceptual framework before these analyses. The main concepts in the study - diversification in employment structure and diversification in employment status - are therefore explained in this chapter. This will help us to evolve some operating definitions and familiarise some key words that appear frequently in the study.

2.1 Diversification

Literally the word 'Diversification' means 'the act of diversion' from the existing status or position or introducing some sort of changes into the activities undertaken hitherto. Mostly used in business circles, it commonly denotes the diversification of a firm to a variety of products as a part of its efforts to modernise and develop. But, of late, other disciplines have also been using the concept to indicate any changes from the prevailing situations. In economics too, the concept is basically used in connection with development. 'Economic diversification' actually implies the changes in the production structure. As such it is a process of transforming an agrarian economy into an

industrialised and developed economy. Accordingly, it becomes an important macro economic change taking place in an economy (Basant et.al, 1998). In a rural environment this transformation is mainly through the setting up of small industrial units, and then the concept becomes a synonym for rural industrialisation.

Again, even within the agricultural and non-agricultural sector we use the concept of diversification. In agriculture it mainly refers to crop diversification by which the economy diversifies from less productive, labour intensive and subsistence crops to high yielding, capital intensive and commercial crops. The scope for diversification is enormous in industrial production and service sector and with the growth of specialised managerial and production techniques it is widening further.

2.2 Diversification in Employment Structure

Side by side with changes in production structure there also occur changes in the employment pattern and workers move from agricultural to non-agricultural employment and from rural to urban areas. This study focuses essentially on such diversification in employment structure that is in fact a narrower term than economic diversification. At the same time it is by itself a part of the latter.

An accurate measurement of the extent of diversification is a difficult task. This is mainly because of the complexities involved in categorising workers into different occupations, industries and sectors. A broader classification will bring in a lesser degree of diversification and vice versa. As this problem could be foreseen, a uniform pattern of classification of the

different employment avenues available to workers was framed before the primary survey. This classification, to a large extent is in tune with the National Industrial Classification followed by the official data-collecting agencies.

All these agencies categorise employment into occupations on the basis of the nature of work performed by an individual. Broadly they belong to different industrial divisions in the three major sectors of the economy. While occupation indicates "what the individual does", the industry and the sector in which he is occupied show " the position of the worker in the economic structure of the country" (ILO 1949). In other words, the 'industry' defines 'for whom the work is being done' and the 'sector' implies the major subdivisions in the economic process - primary, secondary and tertiary sectors. For our analytical purposes, our aim is to examine the sectoral and industrial rather than occupational distribution of the workers. The employment structure in this study, therefore, refers to the distribution of workers according to their occupations, within the industrial divisions of the three sectors.

With regard to the less developed countries where individuals engage in a variety of occupations for their livelihood, the task of defining occupations within the sector is not an easy task. For instance, a person who is occupied as a self-employed cultivator may also get reported as agricultural labourer or as engaged in livestock, fisheries etc if he is simultaneously engaged in hiring out his labour for wage work in those activities. That is especially true of rural Kerala, where owing to the land reform measures most rural households own a homestead and because of the poverty alleviation schemes like Integrated Rural Development Program (IRDP), some of them

find subsidiary occupations. It is to do away with this difficulty that we have grouped together the occupations in the three main sectors of employment and observed the changes in occupations among the sectors. This has also enabled us to have a better identification and enumeration of women workers engaged in different activities in rural areas. However, we have taken note of the acts of diversification of this nature also of those women who are pursuing more than one activity for their livelihood.

The sectoral subdivisions and the industrial categorisations adopted are as follows:

Following in general the three-sector scheme of sectoral subdivisions of Fisher (1935), the first sector in the study is also the 'primary' or agricultural sector. All activities that depend on the direct and immediate utilisation of natural resources and are primarily essential for the existence of human beings come under this sector. The occupations in the agricultural sector include livestock, fisheries, forestry and mining. Now a days mining and quarrying are not included in the primary sector (World Bank Development Reports) as they use capital intensive production methods. In the rural areas of Kerala also the units engaged in these activities are functioning as industrial units. So our study also follows suit.

The 'secondary' sector is used to refer to the manufacturing of tangible goods implying that the creation of tangible goods is of secondary importance. Thus the occupations in all manufacturing- household and non-household and all construction activities are reported in the secondary sector.

The third sector termed 'tertiary' or 'service' sector is 'the residual of other sectors' (Clark 1940). Occupations in the tertiary sector are listed in transport, communications, banking, finance and services that help the primary and secondary activities.

For identifying the broad industrial divisions in which workers are employed the traditional Census classification of workers is adopted in this study. In the Provisional results of 2001 Census already published, workers are classified into only four categories as cultivators, agricultural labourers, household industry workers and other workers. In this the last category 'other workers' will definitely be a mixture of the primary, secondary and tertiary workers and this categorisation will not give a true picture of the non-agricultural employment. So the earlier familiar nine-way classification of workers by industry in the 1991 Census is followed. The chief advantage of using the 1991 Census classification is that in the rural areas, where the individuals are engaged in a variety of activities, it enables us to compartmentalise all categories of workers. However, a slight modification regarding workers in other services is made in this study by categorising them into two i.e. those who are employed in government services and those employed in private firms.

Thus workers are grouped in the following industrial categories:

1) Cultivators (C) 2) Agricultural Labourers (AL) 3) Livestock, Forestry, Fishing, Hunting and Plantation orchards and other activities (L.F.F) 4) Mining and Quarrying (M&Q) in the primary sector. In the secondary sector the main divisions are 5A) Manufacturing, Processing, Servicing and repairs in Household industry (MPSH) 5B) Manufacturing, Processing, Servicing and repairs in Other than Household industry (MPSOH) 6)

Construction (CT). 7) Trade and Commerce (TC) 8) Transport, Storage and Communications (TSC) and 9) Other Services (OS) again divided as Government Services (GS) and employment in Private Firms (PF) to constitute the tertiary sector.

The Clark-Fisher thesis about the relationship between economic development and sectoral shifts in employment refers to certain distinct, necessary and predictable changes in the latter as development gathers momentum in an economy. In the words of Colin Clark " A high average level of real income per head is always associated with a high proportion of working population engaged in tertiary industries... low real income per head is always associated with a low proportion of the working population engaged in tertiary production and a high percentage in primary production"(1940). A.G.B.Fisher also stresses this by stating that "We may say that in each progressive economy there has been a steady shift of employment and investment from the essential primary activities.... to secondary activities of all kinds and to a still greater extent into tertiary production" (1952). It is this shift in the sector of employment that is crucial for our analytical purposes and we call it employment diversification, which is wider than the one indicated by occupational diversification.

Again, in the literal sense of the word, employment diversification can be defined as a process that transfers the workers from agriculture to non-agriculture. Individuals and households follow different strategies of diversification to earn, to stabilise and to increase their income. It is these strategies that we take into account in this study as the process of diversification.

As for the reasons behind this process, we can foresee three different situations. First, workers may diversify in response to certain specific threats. To cite an instance, nonavailability of work in the agricultural sector and inadequate days of employment are some factors that push them out of agriculture. Over and again, diversification may be in response to certain specific opportunities. Starting of household or non-household industries, within and around the villages that ensures a more or less regular employment and income are some such pull factors. Workers may also diversify as a consequence of the general changes in the production structure. Due to the general economic development of the region, they may take up jobs in the secondary and tertiary sectors and may be ready to commute longer distances on this account to urban and semi-urban areas. These shifts may change the employment status of the workers, the economic status of their households, make the labour force more flexible and adaptable, and may result in the evolution of a dynamic labour market.

The process of diversification helps us to study the sectoral composition and sectoral shifts of workers in a particular region. Such shifts in developed countries may be purposeful. But, in rural India this is not the case. A large part of the shift there may be involuntary or even forced. Poverty, inequality, unequal opportunities, heterogeneous character of the labour market, differences in skill in rural-urban environments etc, make it difficult to arrive at an accurate measure of employment diversification suiting Indian conditions. Identifying the principal and secondary sectors of activity and the extent of sectoral shift are thus found necessary for the purpose of our study. Here we have adopted the survey year as the reference period and if the workers report more number of days being employed in a particular sector that

year, it is treated as his or her principal sector of activity. Details regarding the first three activities undertaken by these workers are collected for analysis.

In Kerala, however, this process had started well before and almost all the newly employed and the potential labour force have clearly indicated their choice to be employed in non-agricultural activities. So, in our analysis, the word diversification is defined in a wider context. It captures not only the changes in the economic activities of the workers, but also their choices as well. Thus both the changes of employment from one sector to another and the choice of the sector of employment come under the concept of employment diversification in the present study. We can therefore identify two components in the process of diversification. (1) Existing workers shifting from agriculture to non-agriculture and (2) New entrants choosing non-agriculture as their sector of activity.

Most of the earlier studies have used the concept without bringing out this distinction mainly because of their preoccupation with macro level statistics. An extensive micro level enquiry in five districts of Gujarat conducted by Gujarat Institute of Development Studies (Unni 1996) has studied diversification by individualworker\household by taking the number of economic activities undertaken by them. This type of diversification is also important as the study centers on women workers especially of rural areas. So we have taken special note of this aspect also in our analysis.

Taking into account all these factors we have collected information about the workers on three distinct premises: 1) Sectoral shift of individual workers from agriculture to non-agriculture over a period of time taking a time span of the past fifteen years. 2) Choice of new entrants to different sectors,

also over a period of past five years and 3) Multiple activities undertaken by the workers at the time of the survey over the past one year.

2.3 Employment Status

In addition to the sectoral and industrial categorisation of workers we also classify them by their employment status. This is done to analyse the consequences of the diversified employment structure. Employment status or work status also termed 'personal status' or 'industrial status' by the "International standard classification of occupations" (ILO 1949) refers to the nature of employment of the individual. Two distinct categories of employment status are commonly accepted in India i.e. the Census and the NSSO. The one by Census classifies workers into 1) Employers 2) Employees 3) Single worker and 4) Family worker. This classification is rather broad and does not exactly reveal the impact of diversification. It may either be positive if the workers have benefited from the process, or negative if it has resulted in reducing their bargaining power. Since we have a definite motive of going beyond the process of diversification we follow a different classification provided by the NSSO. Accordingly workers are classified into three groups as1) Self employed 2) Regular employees and 3) Casual employees. The commonly accepted definitions of these terms are:

Self-employed: Persons who operate their own farms or non-farm enterprises or are independently engaged in a profession or trade on own-account or with one or a few partners are deemed to be self employed. They are again categorised as 1) Own -account workers who do not have any paid helpers 2) Employers who hire labourers 3) Helpers in household enterprise who receive no salary.

Regular employees: These are persons who work in other's farm or non-farm enterprises and, in return, receive a salary on a regular basis. This category also includes paid apprentices both full-time and part-time.

Casual labour: A person who is casually engaged in other's farm or non-farm enterprises and, in return, receives a wage according to the terms of the daily or periodic work contract is considered a casual labourer.

As the word meaning suggests casual jobs are 'infrequent' or 'occasional ' and so lack of regularity is the main factor in this status classification. Still there are other features also that are equally important like insecurity, lack of protection by labour laws and want of an assured minimum income. In lieu of these facts a slight modification is made in the commonly accepted definitions of employment status. So a section of the reported self-employed workers who are not regular employed are treated as casual labourers in our study. Likewise a section of the regular employed who receive monthly wages but are not entitled for any other employment benefits or social security is also treated as casual labourers.

2.4 Diversification in Employment Status

If diversification in employment structure is to be regarded as an index of development in developing countries it should have resulted in a shift in their employment status also. But the development experience of most third world countries in this regard is that the shift has enabled the women workers to change their status from unpaid family workers to wage earners. They rarely move to regular jobs and in countries like India they are reduced to the

status of casual labourers (Horton 1996). This phenomenon generally recognised as the process of casualisation is thus specifically related to the change in the contractual conditions and status of labour (Mukhopadhyay 1992). In the present study the share of the casual labourers in total workforce is considered as a measure of the incidence of casual labour in the workforce.

In analysing the diversification in employment status we have taken note of the past and present employment status of workers, change in employment status consequent on the change in the sector of employment, the employment status of new entrants and of those who undertake multiple activities.

It is within this conceptual framework that the interview schedule of the primary survey was administered and the schedule is shown in Appendix IV.

CHAPTER III

LITERATURE REVIEW

Social research into employment and labour market focused on the attitudes and experiences of male workers till the late seventies of the last century. Actually, labour was gender neutral and basically homogeneous for all purposes in the writings of most prominent authors of these times. This was on the assumption that women were marginal to the central dynamics of employment relationships. The publication of Ester Boserup's pioneering work, ' Women's Role in Economic Development' in 1970 broke this tradition. Thereafter, extensive works appeared in the realm of female labour supply, and they all had a common goal i.e., 'to bring the margin to the centre' by shifting the focus to female workers (Baneria 1987).

The literature on rural labour and the labour market as such is also very rich and deals with innumerable aspects. Labour absorption in rural areas in agriculture and non-agriculture, changes in labour demand and supply on account of the rural transformation, wage determination processes in agriculture were issues that received considerable attention of scholars. Though it is quite difficult to scan all this documentation, it would be improper to ignore some of the relevant aspects that the earlier scholars have covered in their works. So we confine our review to those that pertain to rural employment structure, especially those of women. We can categorise the studies in this area into the following groups:

1) The extent of Rural Female Work Participation Rates (RFWPR) and the nature of its changes over the decades.

2) Rural employment structure and the changes in the sectoral distribution of workers.
3) Determinants of female non-agricultural employment in rural areas.
4) Employment status and changes in the status distribution of women workers.

In all these categories most of the prior studies discuss inter-state disparities and trends using either NSSO or Census data. However, there are also some studies that look into the inter-regional framework of certain states. But studies on disaggregation below the state and district level are few and rare exceptions. In this chapter the major hypotheses in the literature regarding the rural employment structure and process of diversification are examined. The variables used as determinants of diversification and employment status are also explored.

3.1 The Extent and Nature of Changes in Rural Female Work Participation Rates

In recent times, most of the developed countries have registered high RFWPR, which have also shown a substantial and secular increase, over the decades of the last century. In comparison the RFWPR in developing countries like India, are low and have been a cause of concern. For instance, in India it has never exceeded 35 per cent in any of the national level estimates, be it of Census or of the NSSO. More over, there has also occurred a pronounced decline of RFWPR for the country as a whole ever since the beginning of the 20th century. The empirical enquiries in India therefore primarily centred on these two aspects.

Economic statisticians and demographers tried to explain the phenomenon as a conceptual and measurement-related problem implicit in the identification of women workers. It was argued that the myth of low level participation would be exploded if work were defined in a broader sense of the term, to include some of the domestic work done by women. In fact a World Bank study on India termed this underestimation of women as "statistical purdha" imposed by existing methods of measuring women's work (World Bank 1991).

A number of studies, therefore, emerged discussing the definitions of work and worker, methods of enumeration, the possibilities of under enumeration and the problems of comparison in different survey periods of the official agencies. Their basic conclusion was that whenever wage and non-wage work co-existed and when female labour was expended on production of non-marketed products, official statistics failed in reflecting the actual participation rates (Agarwal 1985, Banerjee 1989, Bardhan 1977, Duvvury 1989, Nayyar 1987, Sunder 1981, Unni 1989).

In India the low-level FWPR became an issue of hot debate only after the publication of the 1971 Census. Besides, there also existed wide inter-state disparity in FWPR while MWPR had near uniformity everywhere. Writers who went beyond the statistical illusion tried to establish specific relationship between different socio-economic variables and FWPR (Dandekar 1982, Dantwala 1975, Dolakia and Dolakia 1978, Gulati 1975, Reddy 1975). But these macro level comparative studies failed to come up with concrete relationships.

Meanwhile Kalpana Bardhan made an effort to explain the low-level RFWPR by a two-way stratification of female work pattern, i.e. by status strata - stratification by social hierarchy and class strata - by asset inequality (1985). She found both sanskritisation and westernisation active behind RFWPR linking it to the integrated effect of patriarchy and capitalism. This holds true in the society taken as a whole. But women in rural areas in the lowest strata of society are not much bounded by patriarchy.

Based on the empirical evidences researchers have also tried to make inter-temporal comparisons. Delineating comparable NSSO/Census survey years they have provided conflicting interpretations on the trends of changes in RFWPRs. Some census-based studies reported long term and short term declines in female work participation (Bardhan, 1977, Krishnamoorthy 1970, Sen 1983). However, those studies using NSSO data argue that this decline cannot be substantiated (Unni 1989, Visaria 1994).

Since the 1971 Census figures are widely accepted as underestimates, comparisons were made always with 1961,1981 and 1991 Census data. In the case of NSSO data, estimates on female work participation are available from 1972-73 onwards quinquennially upto 1999-2000. When it comes to the question of female workers and inter regional comparisons, NSSO estimates were found better than the Census estimates (Banerjee 1989).

In fact most of the earlier writings on work participation mainly concentrated on explaining, measuring and verifying the changes in these periods mainly at the national level and at the state level. Doubts were also raised on the adequacy of existing modes of data collection on women's work

and the possible bias that is liable to creep in the whole process (Agarwal 1985, Anker 1983).

There are references to the work participation rates of Kerala in all the above mentioned macro level inter-state comparative studies. Among those that specifically concentrate on Kerala, the study of Mridul Eapen (1994) scrutinises both NSSO and Census data from the early 70s to 90s. She has found, the female work participation rates rather volatile, creating much uncertainty and instability in the labour market. Some degree of arbitrariness in enumerating the subsidiary workers is cited to be one reason for this. In other words, women subsidiary workers are supposed to withdraw from their occupations on account of their preference to be unemployed 'rather than engage in intermittent, low paid occupations'.

Gulati et al (1995) comparing the 1981 and 1991 Census figures express an almost similar view. The study concludes that the decline in part is due to the withdrawal of marginal labourers caused by the impact of the welfare schemes like the unemployment assistance and agricultural worker's pension in the state.

Kumar (1994) argues that the changes in the age structure have lowered the female work participation rates by at least 4 percentage points between 1981 and 1991. Being in the later stage of demographic transition, the population in the age group of 0-14 has fallen by around 6 percentage points (Irudaya Rajan et al 1994). Again, Kumar (1994) tried to explain how the female work participation rates are reduced by the changes in the demand for female labour.

Mukharjee and Issac (1994) and Mathew (1997) have studied the problem of educated unemployment in the state. Increase in educational facilities and the extension of free education up to secondary school and university level were supposed to be added factors in reducing the work participation rates especially of females.

Micro level studies are very much limited in Kerala. One of the previous studies is that by the Centre for Development Studies, Trivandrum on employment and unemployment (1977). The incidence of unemployment along with its socio-economic characteristics, and the inter actions of demand and supply factors are subjected to inquiry.

3.2 Changes in the Sectoral Distribution of Rural Female Workers

In the structural transformation theory of Clark and Fisher a country is supposed to follow a development process in which employment shifts gradually from primary to secondary and later to tertiary sectors. These shifts are expected to bring additional economic growth since higher productivity levels distinguish the secondary and tertiary activities.

In India the principal sector of activity in rural areas still continues to be agriculture. But the non-agricultural activities are also assuming prominence with increases in its share over time. There also exist significant spatial variations in non-agricultural participation among the states of India. The RFWPR in non-agriculture is about 8 per cent in Rajasthan, and Madhyapradesh, whereas it is 40 per cent and 46 per cent in Kerala and West Bengal respectively (NSSO 2000).

Some studies based on the NSSO figures emerged in India in the 80s and 90s observing a rise in the proportion of male workers in the non-agricultural sector (Basant and Visaria 1999, Krishna Moorthy 1984). The rise had been too marginal in percentage terms for females and even this rise was overwhelmingly confined to agriculture (Banerjee 1989). An interesting paradox of rising proportion of agricultural labourers in the context of an overall decline was noted (Duvvury1989).

A number of scholars like Ambannavar (1975) Prakash (1975) and Sinha (1972) have discussed the decline in female employment in the manufacturing sectors in the 70s. The most widely quoted case is that of Cotton Textile industry. Some of the reasons offered by these writers varied from factors such as stagnation, technological change, uneven pattern of growth, mortality, literacy rate and urbanisation. Women were also recognised as displaced owing to the acceleration of technological progress (Ghosh 1998). Most of these studies however used the Census figures to substantiate this point. But in the 80s and 90s a reverse of this trend was reported in studies which made use of the NSSO data. A significant increase in participation in the household industries of rural areas (Banerjee 1989) and gradual and steady increases in non-agriculture (Chadha 1993) were noticed. Sheila Bhalla (1993) has for the first time introduced a diversification index that measured the changes within the sectors. She came to the conclusion that in most states and in rural India as a whole the sector that has diversified fastest is the tertiary sector .The secondary sector followed and the primary sector had only slight changes within the sector.

As for the employment structure of female workers in Kerala, literature is scarce. Still as a part of the study on the general process of diversification

to non-agricultural activities in the rural areas, Mridul Eapen (1994) discusses at length the trends of non-agricultural female labourers in the employment structure. The rise in non-agricultural employment in the 70s and 80s in Kerala is explained to be due to the shift in the cropping pattern, process of commercialisation and increased construction activities assisted by the increased remittances from abroad. In a later study Eapen (1995) discusses the inter-district variations in non-agricultural employment between 1971 and 1991. But the study is confined to rural male workers.

3.3 Determinants of Diversification in Employment

In the existing literature the process of employment diversification in rural areas is discussed as a part of the process of economic diversification or rural industrialisation. A number of factors initiated are attributed to be behind this sectoral shift in employment.

In the first place, economic diversification was presumed to be a process led by agriculture by writers like John Mellor (1976). It was argued that a stable and sustained growth in non-agriculture requires a broad-based agricultural development along with macro policy for distributing the gains. The emphasis then was more on consumption and production linkages associated with agricultural growth. Many a hypothesis was formulated and tested in this regard to find a relationship between non-agricultural employment and agricultural development. The variables used as proxies for agricultural development were agricultural output per capita or per hectare, Gini index of concentration of operational holdings, area under non-food crops (as an index of commercialisation of agriculture), irrigated area etc. Using macro economic statistics mostly at the national level covering 15

major states, these studies employed regression techniques to reach meaningful conclusions. Nevertheless, almost all these studies focused on male non-agricultural workforce, as the increase in female employment in the sector was negligible in rural India and in most of the states.

Consumption linkages through increased income and demand of the rural rich were assessed in most of the national-level studies like those of Dev (1990), Unni (1991), Vaidyanathan, (1986). Some regional-level studies of a similar nature also were undertaken by Harris (1991) in some villages of Tamil Nadu and by Shukla (1994) in Maharashtra. The relationship of non-agricultural sector with production linkages was also examined by a number of scholars (Hazel and Haggblade 1991, Nachane et.al. 1989, Shukla 1992). Scanning the extensive literature in this regard we find that one likely conclusion emerges. Agricultural development has positive relationship with employment in the non-agricultural sector more due to the consumption linkages than the production linkages in rural areas. The policy suggestions that followed also reached similar conclusions. When there is disguised unemployment there should necessarily be employment diversification and the output growth in agriculture is to be translated into employment growth in non-agriculture.

Secondly, the process of diversification was postulated to be due to rural - urban linkages. The main factors identified behind this process were the rate of urbanisation, growth of infrastructural facilities, increased commercialisation of the rural economy and the social welfare programmes of the government. While some studies reported strong positive relationship between non-agricultural employment and urbanisation (Bhalla 1993, Eapen

1995, Jayaraj 1994, Shukla 1994, Singh 1994) some others noted a negative impact (Parthasarathy et.al 1998, Sharma 1999).

Researchers in this field also have noticed the rising unemployment rates in rural areas, the increased nature of casualness among the workers and incidence of poverty as reasons for diversification. This resulted in the formation of another hypothesis commonly termed distress-induced diversification or residual sector hypothesis (Vaidyanathan 1986). Accordingly workers diversify because of distress and the sheer necessity of getting employed, when they fail to get absorbed in the agricultural sector or in the urban informal sector. The variables that suggested this push from agriculture were unemployment rates, percentage of wage labourers or landless labourers (Unni 1991, Vaidyanathan 1986) land-man ratio and the ratio of marginal holdings to total holdings (Eapen 1995) etc.

3.4 Employment Status of Women Workers

Literature on the employment status of women workers had often been theoretical rather than empirical in nature. Some of the earlier studies projected the view that economic development had a marginalisation effect on female employment. Popularly known as the 'female marginalisation thesis' this view argues that women are progressively marginalised from production in the process of industrialisation and economic development. This central idea is in reality drawn from the Marxist and socialist feminist writings and they consider that women's marginalisation is a product of capitalist organisation of production and use of labour. Many socialist feminists consider that capitalism and patriarchy result in women's confinement to home and to inferior jobs (Eisenstein 1979, Hartman 1979). The separation between

production and reproduction, under capitalism and the hierarchical structuring of capitalist enterprises give rise to segregation and marginalisation of women's work. Though basically drawn from a Marxist frame of analysis an agreement on this thesis is shared by other scholars as well, and in this sense it has gained wider acceptability in the academic circles.

A more recent analysis by modernisation theorists however refuted this view. Instead they predict a positive relationship between development and female employment. In other words, they hold that women are integrated into the labourforce as new job opportunities are opened up in industry.

Empirical evidences in India on the status distribution of workers point towards increased casualisation of the labour force (Mukhopadhyay 1992, Vaidyanathan 1986). These studies highlight a consistent decline in the share of self-employed and sizeable increase in the percentage of wage employed. Wage employment in most states of India takes the form of casual employment. As for the reasons for increased casualness the explanations vary. In general they speak of capitalist development in agriculture, land reforms, proliterisation of the small and marginal landholders and inadequate opportunities for self-employment (Bardhan 1977, Bardhan 1978 & 1984, Rudra 1979).

Anyhow, both the issues of marginalisation and integration cannot be generalised. The empirical studies available suggest such a conclusion (Acevedo 1990). Because of regional diversities, even in cases where such an integrating trend is seen, it may not mean an improvement in the employment status. Much depends on the particular pattern of the development process in the country.

Acquaintance with all this literature on the process of diversification leaves the following impressions with regard to the research gaps:

The observations on sectoral composition of workers and sectoral shifts focus mainly on the country as a whole. Regional studies are only few and far between and even these pertain to explanations upto the district level. Further disaggregation beyond that is limited maybe due to the nonavailability of secondary data. So it is necessary that continuing studies at the village level be done to gather more insights into the process of diversification at the grassroots level and also to enrich the database. This is especially so in Kerala where no such studies exist.

Another notable feature of the studies reviewed is their silence on female non-agricultural employment. All these studies either take up the total work participation or male work participation in the non-agricultural sector. The low female work participation in the non-agricultural sector in most of the states and the nation as a whole and the fear of statistical inaccuracy have dissuaded some researchers from engaging in analysis involving women. However in Kerala these two reasons cannot hold good and one can with confidence attempt such an enquiry.

In all studies, except a few (Bhalla 1993, Eapen 1999) the non-agricultural sector is treated as having a homogenous group of activities and even though data are available on different types of occupations they are not utilised properly.

Though there are numerous studies on the determinants of participation in non-agriculture, not many have looked into the consequences of such a diversification. As a result of a change in the sector of employment, workers may either rise in economic status or they may get casualised. Studies on this aspect in Kerala are conspicuous by their absence.

3.5 Hypotheses

Taking into account the research gaps the present study focuses on the employment structure of rural women and its determinants bringing to light the hidden factors that necessitate their participation in activities outside agriculture. In this endeavor the employment status of women workers in the area selected for study is also subject to a thorough scrutiny. Consequently the following hypotheses will be tested in this study.

1) In Kerala the present employment structure favours the employment women more in non-agricultural activities than in agricultural activities.

2) Variables indicating development influence the process of diversification rather than those indicating distress.

3) There is diversity in the process of diversification itself in the three blocks.

4) The sectoral shift and the status shift in employment are not dependent.

CHAPTER IV

RURAL NON-AGRICULTURAL EMPLOYMENT IN KERALA - SIZE, STRUCTURE AND STATUS

In this chapter an attempt is made to work out the extent of diversification in the rural employment structure in Kerala as reflected in the secondary data available. Two main sources of the data on work participation i.e. the NSSO and the Census are used for this purpose. As mentioned earlier, these macro level estimates often fall short of reality due to the invisible and casual nature of work especially of female work in rural areas. Operating within this widely discussed limitation the study intends to place on record some characteristic features of employment in rural Kerala. Broad generalisations are made on three different dimensions. They are:

a) Rural work participation rates which measure the level of employment in rural areas,
b) Rural employment structure or the sectoral composition to observe the changes in the distribution of workers and
c) The status of employment to analyse the consequence of the sectoral shifts.

4.1 Rural Work Participation Rates in Kerala

Though the measurement of work participation in rural areas is difficult and complicated, it broadly reflects the levels of employment in the rural economy. Again the trends in work participation over the years indicate the inclusion or exclusion of workers from productive employment. It is also generally argued that "when work participation rates differ considerably without any plausible explanation, data on industrial

occupation or status distribution of workers cannot be compared with any confidence" (Visaria 1984). Thus it is necessary that the estimates of rural work participation rates be assessed before analysing the trends in rural non-agricultural employment.

The rural work participation rates in the different states of India as per the NSSO 55th round is shown in table 4.1. With regard to the level of employment in rural areas, it is found that in comparison with the male work participation rates, the female work participation rates are very low, both at the national and at the regional levels. Actually, among the states in India, Kerala is one where this gender disparity in work participation is more pronounced. Whereas the rural male participation of 55.3 per cent in the state is above the national average of 53.1 per cent, the corresponding female work participation rate of 23.8 per cent is well below the national average of 29.9 per cent.

It is also clear from the table 4.1 that though the male participation rates have near uniformity in almost all the states, the female rates have wide inter regional disparities. The co-efficient of variation of the states with regard to female workers is really high indicating this disparity.

In order to examine the intensity of female work participation with respect to male work participation we have worked out the Female-Male work participation Ratio (FMR). In Kerala it is found to be at 0.43. Compared to the neighbouring states in South India this should be considered very low, as in all these states the rates are considerably high ranging from 0.64 in Karnataka to 0.79 in Andhra Pradesh. At the very outset it is also evident that there exist variations in the FMR among the states. An evaluation by 't' statistics reveals these variations to be significant at 5 percent level.

Table 4.1

Rural Work Participation Rates - All India and States

State\Gender	Male	Female	Persons	FMR
Andhra Pradesh	60.5	47.8	54.2	0.79
Arunachal Pradesh	42.2	31.0	36.9	0.73
Assam	52.9	15.1	34.9	0.28
Bihar	49.2	17.3	33.8	0.35
Goa	53.9	18.1	35.9	0.34
Gujarat	58.4	41.3	49.9	0.71
Haryana	47.5	20.2	34.6	0.43
Himachal Pradesh	53.6	47.1	50.3	0.88
Jammu& Kashmir	54.8	32.7	44.2	0.60
Karnataka	59.5	38.0	48.7	0.64
Kerala	55.3	23.8	38.7	0.43
Madhya Pradesh	53.6	38.2	46.2	0.71
Maharashtra	53.1	43.4	48.4	0.82
Manipur	49.5	25.3	38.0	0.51
Meghalaya	55.7	41.8	48.6	0.75
Mizoram	55.5	44.0	49.9	0.79
Nagaland	51.8	44.1	48.2	0.85
Orissa	55.1	29.9	42.3	0.54
Punjab	53.0	28.0	41.0	0.53
Rajasthan	50.0	38.8	44.6	0.78
Sikkim	50.2	24.1	38.0	0.48
Tamilnadu	59.4	43.0	51.3	0.72
Tripura	50.4	7.3	30.3	0.14
Uttar Pradesh	48.1	20.1	34.5	0.42
West Bengal	53.4	16.0	34.9	0.30
ALL INDIA	53.1	29.9	41.7	0.56
Coefficient of Variation	***7.7***	***37.3***	***16.3***	***2.87***

Source: Government of India, NSSO Report No. 458 (55\10\2)

FMR: Female - Male work participation rate Ratio

In the Census reports a much wider gender disparity is noted, with a rural female work participation rate of 15.9 per cent as against the rural male work participation rate of 50.2 per cent. In India these figures are 31.0 and 52.4 per cent respectively (Census 2001). Even though Kerala has a sex ratio favouring women -1059 females for 1000 males in rural areas as per the 2001 Census- and ranks high regarding the indicators of social welfare in terms of health, education and demographic change, the state has always had low rural female work participation rates.

The glaring gender disparity in the work participation rates between rural male and female workers in general may be due to the problems of invisibility and conceptualisation of work and workers in rural areas. Still it can be accepted only as a partial explanation that hardly stands good in explaining the differences in female work participation rates among the states.

Probing deep into these regional variations our discussion naturally takes us to the unique position that Kerala has among the states in India. The state ranks first in the Human Development Indicators (National Human Development Report 2001) and has the fifth place in the CMIE index. Besides it has the highest rank in rural female life expectancy, has the lowest birth rate of 18.3 per thousand, lowest crude death rate of 6.3 per thousand and also the lowest infant mortality rate of 15 per thousand live births in the rural areas (SRS bulletin 1998). At the same time, the state has a relatively low status in other development indicators, especially on the economic front namely viz, low per capita income, wide income disparities, high incidence of unemployment, stagnant agricultural and industrial production, price instability etc. In this context we are reminded of the much discussed and internationally acknowledged 'Kerala Model of Development'. Actually this model, characterised by relatively high levels

of social development along with slow economic growth is associated with many a dilemma in the labour market. The paradox in the context of this study is the very low female work participation in the state despite increased female literacy and enhanced status of the women. The increase in capabilities due to the favourable socio-economic environment has actually led to the voluntary withdrawal of women workers from productive employment.

Changes in the age structure of the population, consequent on the demographic changes in Kerala have often been cited as a reason for the low participation of women in rural areas (Gulati et al 1997; Kumar, 1994). So in table 4.2 the percentage differences in the age-specific population and age-specific work participation of rural female workers in Kerala from that of India is shown. While the non-working age group 0-14 constitutes around one fourth of the total population at the all-India level, in Kerala their proportion is below one sixth. Naturally the percentage of population is on the higher side in Kerala in almost all the prime working age groups above 15 years. However when statistically tested there are no significant variations in the age specific female population between India and Kerala, the 't' value being -.330.

In contrast to the percentage of population, the percentage of working population in all the age groups in Kerala is lower than that of India. Using the paired sample 't' test we have found significant variation at 5 percent level for age specific work participation between India and Kerala (t value 7.24).

Owing to extended years of schooling and the resultant delay in entry into the labour force, the participation among young women in Kerala got reduced considerably. It is only after the age group of 25-29 that

the differences in the proportion of working population steadily decline between the state and the national levels. This difference is the least in the uppermost age group of 60 and above. A comparative view of the lower and upper age groups in Kerala also indicates that in rural Kerala the young women rather than the old are spared from taking up jobs.

Table 4.2

Percentage Difference in the Age-specific Population and Work Participation among the Rural Females in Kerala

Age Group	India		Kerala		% Difference	
	Persons	Worke	Persons	Worker	Persons	Worker
5-14	24.6	10.3	16.3	0.2	8.3	10.1
15-19	8.8	30.4	9.9	10.6	-1.8	19.8
20-24	8.6	40.9	9.2	22.3	-0.6	18.6
25-29	8.4	49.1	9.1	30.4	-0.7	18.7
30-34	7.5	55.5	7.1	40.4	0.4	15.1
35-39	6.7	57.9	7.7	49.5	-1.0	8.4
40-44	5.1	58.6	6.1	52.3	-1.0	6.3
45-49	4.5	56.6	6.3	43.9	-1.8	12.7
50-54	3.6	51.5	4.4	40.7	-0.8	10.8
55-59	3.0	45.0	3.6	39.1	-0.6	5.9
60 &above	7.2	21.8	11.7	17.0	-4.5	4.8
All	88.1	29.9	91.9	23.8	-3.8	6.1

Source: Government of India, NSSO Report No. 458 (55\10\2)

Besides the low female work participation rates, explanation is also to be sought for the significant decline in these rates over the past two decades both in the NSSO and in the Census estimates. The tables 4.3 and 4.4 compiled from these sources, reveal the trends in the rural work

participation rates over these years. The decline in general affected both the male and the female workers in rural India. To observe the pattern of movement of these rates over time a trend projection was made initially and then a quadratic equation framed. The quadratic equation co-efficient shows that the rate of decline in male participation rates is diminishing while that of females are rising.

In rural Kerala the decline is confined only to females but the rate of decline is found to be diminishing. When compared to the 1977-78 period the present participation rate in the state is lower by 17.5 percentage points in the NSSO rounds and the decline noted between the Census years 1961-2001 is 5 percentage points. It is also found that the participation rates of rural male workers in Kerala had shown an increasing trend at an increasing rate during this period. The increase is 4.5 percentage points in the NSSO figures and 2.8 percentage points in the Census.

The FMR at the national and state level declined over the NSSO rounds. In rural India the decline was small from 0.60 to 0.56 and the fall in the participation rates of both the male and the female workers contributed towards this trend. In rural Kerala, on the other hand, the decline was very sharp from 0.81 to 0.43 because of the simultaneous occurrance of a marginal rise in male participation rates and a steep fall in female participation rates. It is also noted that the FMR for India had been lower compared to that of Kerala till 1983 after which it became lower than the national figures in the succeeding rounds. Over the Census years also the trend in FMR is similar in rural Kerala, whereas a slight rise is seen in rural India.

Table 4.3

Rural Work Participation Rates in Kerala and India--NSSO

Source\Year	India			Kerala		
NSSO Rounds (UPSS)	MWPR	FWPR	FMR	MWPR	FWPR	FMR
1977-78 (32nd round)	55.20	33.10	0.60	50.80	41.30	0.81
1983 (38th round)	54.70	34.00	0.62	48.40	30.50	0.63
1987-88 (43rd round)	53.90	32.30	0.60	50.60	28.60	0.57
1993-94 (50th round)	55.30	32.80	0.59	53.70	23.80	0.44
1999-2000 (55th round)	53.10	29.90	0.56	55.30	23.80	0.43

Note: UPSS - Usual principal and subsidiary status
Source: Government of India, NSSO reports of various rounds

Table 4.4

Rural Work Participation Rates in Kerala and India -- Census

Source\Year	India			Kerala		
Census	MWPR	FWPR	FMR	MWPR	FWPR	FMR
1961	58.3	31.4	0.54	47.4	20.9	0.44
1971	53.6	13.4	0.25	45.3	14.1	0.31
1981	53.8	23.1	0.43	45.2	17.7	0.39
1991	52.5	26.7	0.51	47.9	16.9	0.35
2001*	52.4	31.0	0.59	50.2	15.9	0.31

*Provisional figures
Source: Government of India, Census reports of various years

This decline in work participation rates is also reflected by the rising unemployment rates in Kerala as revealed in table 4.5. Thirteen per cent of the rural female workforce are unemployed compared to a marginal one per cent for the nation as a whole. The magnitude of the rise in unemployment rates in the state between 1977-78 to 1999-2000 had also been higher for females than males. When the former increased by 5.6 percentage points the latter had an increase of one percentage point only. In the case of the educated unemployed females in the rural areas of the state, the figures are shockingly high at 49.1 per cent in the latest NSSO round.

Table 4.5

Unemployment Rates in India and Kerala

NSSO Rounds	India	Kerala	India	Kerala
	Male		Female	
1977-78	1.3	4.7	2.0	7.6
1983	1.4	7.0	0.7	7.2
1987-88	1.8	9.3	2.4	14.9
1993-94	1.4	5.5	0.9	9.7
1999-2000	1.7	5.7	1.0	13.0

Source: Government of India, NSSO Reports of various years

Most of the studies on employment and unemployment in Kerala attribute these developments to the lack of industrial growth in the state. Moreover the deterioration of the two household industries, coir and cashew, where a large number of females in the state found employment, contributed to the drastic decline of rural female work participation rates in the past decades.

In the agricultural sector also there has occurred a reduction in the area under paddy - a female labour intensive crop, from 87.5 lakh per ha in 1972-73 to 3.5 lakh ha in 1999-2000 (CMIE 2000). Besides, the conversion of land for the cultivation of perennial crops like rubber and coconut and the subdivision and fragmentation of landholdings due to land reform measures also resulted in the lowering of work participation.

Yet another paradoxical situation is the prevalence of high wages in both the agricultural and the non-agricultural sectors in rural areas along with high rates of unemployment. Despite the fact that the state has relatively low agricultural and industrial development because of the existence of strong and vigilant trade unions, the wages for the skilled, semi-skilled and even casual labourers are high. Among the major states in India the wages for casual labourers is the highest in rural Kerala with Rs.100.78 for male and Rs.56.65 for female labourers (NSSO 2000). This, of course, has resulted in the reduction of the work participation among females both due to the supply and demand side factors. The increased income of the households from high wages has made the rural women refrain from working, reducing their labour supply. At the same time, this ' wage gain' has led to ' job loss' reducing labour demand (Kannan 1999).

On the whole, it can be concluded that both supply and demand side factors are behind the lower participation of women workers and the decline in their participation rates in Kerala. The spread of education, rise in the wage rates and social changes have indirectly been responsible for reducing labour supply. At the same time the declining opportunities in the agricultural and industrial sectors have had a more direct influence by reducing their chances of employment.

4.2 Sectoral Composition of Rural Workers in Kerala

When we observe the sectoral composition of rural workers it can be seen that Kerala has an employment structure entirely different from that of India as a whole. The state occupies a position of superiority, with a diversified employment structure providing increased opportunities, in the non-agricultural activities. The estimates of NSSO 55th round show this to be around 57 per cent for rural males and 40 per cent for rural females. Except for the states of Goa, Tripura and West Bengal all states in India have lower rates than Kerala with regard to female workers. Only in the state of Goa the male participation in non-agriculture exceeds that of Kerala. The national averages are found to be only around 28 per cent for males and 15 per cent for females in this matter.

Of the non-agricultural sectors the secondary sector employs 24.4 per cent of rural males and 22.8 per cent of rural females in Kerala. The corresponding national figures are very low at 12.6 and 9 per cent respectively. Among the states only West Bengal has a higher proportion of female secondary workers than Kerala. There is no denying the fact that the state is now widely recognised as one with a stagnant industrial sector. Both public and private sector investments are lower and it has also shown a declining trend. Thus in the production structure, industry contributes very little, but in the employment structure its contribution is much more.

In the tertiary sector the participation rates for rural males is 32.8 and for rural females it is 17.4. These figures are more than twice the figures for rural males and females of India. It can be seen that in rural India including Kerala, more female workers have found employment in the secondary sector than the tertiary sector, while the male workers were

absorbed in the tertiary sector. Table 4.6 shows the sectoral composition of rural workers of the state in comparison with the other states of India.

Table 4.6

Sectoral Composition of Rural Workers in India

State\Sector\ Gender	Primary		Secondary		Tertiary		Total NA	
	M	F	M	F	M	F	M	F
Andhra Pradesh	74.4	84.3	9.7	7.3	15.9	8.4	25.6	15.7
Arunachal Pradesh	75.6	95.1	10.0	3.8	14.4	1.1	24.4	4.9
Assam	64.7	79.4	5.5	8.5	29.8	12.1	35.3	20.6
Bihar	79.0	85.7	8.8	9.1	12.2	5.2	21.0	14.3
Goa	24.2	42.1	34.9	15.4	40.9	42.5	75.8	57.9
Gujarat	71.4	92.0	14.1	4.0	14.5	4.0	28.6	8.0
Haryana	59.6	92.1	19.8	2.8	20.6	5.1	40.4	7.9
Himachal Pradesh	53.8	95.1	25.9	1.6	20.3	3.3	46.2	4.9
Jammu& Kashmir	66.9	93.5	15.3	4.1	17.8	2.4	33.1	6.5
Karnataka	78.5	87.8	8.3	6.2	13.2	6.0	21.5	12.2
Kerala	42.8	59.8	24.4	22.8	32.8	17.4	57.2	40.3
Madhya Pradesh	84.2	91.6	6.6	5.7	9.2	2.7	15.8	8.4
Maharashtra	73.8	93.9	11.0	3.1	15.2	3.0	26.2	6.1
Manipur	78.0	69.6	3.6	20.4	18.4	10.0	22.0	30.4
Meghalaya	86.0	87.3	4.8	0.6	9.2	12.1	14.0	12.7
Mizoram	84.0	87.5	2.8	1.8	13.2	10.7	16.0	12.5
Nagaland	70.5	91.9	3.4	0.6	26.1	7.5	29.5	8.1
Orissa	77.0	80.4	10.3	14.9	12.7	4.7	23.0	19.6
Punjab	63.7	90.6	16.6	2.6	19.7	6.8	36.3	9.4
Rajasthan	67.3	91.9	19.5	5.2	13.2	2.9	32.7	8.1
Sikkim	56.9	70.1	12.1	4.0	31.0	25.9	43.1	29.9
Tamilnadu	62.2	75.9	20.5	15.8	17.3	8.3	37.8	24.1
Tripura	45.3	49.1	25.1	10.9	29.6	40.0	54.7	50.9
Uttar Pradesh	71.8	87.5	19.6	6.9	8.6	5.6	28.2	12.5
West Bengal	66.4	54.1	14.5	36.5	19.1	9.4	33.6	45.9
ALL INDIA	71.4	85.4	12.6	9.0	16.1	5.8	28.3	14.8

Source: Computed from NSSO Report No 458 (55\10\2)
M-Male, F-Female, NA- Non Agriculture

Based on the table 4.6 the differences in male and female participation in total non-agricultural activities among the states were evaluated. The results of the paired sample test show no homogenity in the paired sample. The 't' value 5.76 indicates significant variation of male and female employment in non-agriculture in various states in India.

One of the natural consequences of economic development is expected to be a shift in employment, relatively away from the primary sector towards the secondary and tertiary sectors. However, in rural India, at least in the case of female workers such a shift has not yet occurred and the pattern of employment continues to be almost changeless. Even the decline that occurred in the primary sector has only been gradual with 9.4 and 3 percentage points respectively for males and females. The sectors that absorbed these workers are revealed to be tertiary for male workers and secondary for female workers. Table 4.7 presents the NSSO data on sectoral shift in employment in rural India.

Table 4.7 Changes in Employment Structure in Rural India –NSSO

INDIA	Primary		Secondary		Tertiary		NA	
Sector/ Gender	M	F	M	F	M	F	M	F
1977-78	80.6	88.1	8.8	6.7	10.5	5.1	19.3	11.8
1983	77.6	87.7	10.1	7.4	12.2	4.8	22.3	12.2
1987-88	74.5	84.5	12.1	10.0	13.3	5.2	25.4	15.2
1993-94	74.1	86.2	11.2	8.4	14.7	5.6	25.9	14.0
1999-00	71.4	85.4	12.6	9.0	16.1	5.8	28.0	14.8

Source: Government of India, NSSO reports of various years
M-Male, F-Female

As regards the trends in Kerala there had been a steady and substantial decline in the primary sector employment from 59 per cent to 43 per cent for males and 73 to 60 per cent for females, between 1977-78 to 1999-2000. These changes in the sectoral composition of rural workers in the state are shown in table 4.8.

Table 4.8

Changes in Rural Employment Structure in Kerala --NSSO

KERALA	Primary		Secondary		Tertiary		Total NA	
Sector/ Gender	M	F	M	F	M	F	M	F
1977-78	59.1	72.6	18.0	18.2	22.9	9.2	40.9	27.4
1983	57.4	67.4	17.2	21.6	25.4	11.0	42.6	32.6
1987-88	54.2	65.7	18.9	20.4	26.9	13.9	45.8	34.3
1993-94	53.0	63.0	19.6	21.8	27.4	15.2	46.8	37.0
1999-2000	42.8	59.8	24.4	22.8	32.9	17.5	57.3	40.3

Source: Government of India, NSSO reports various years

The quadratic equations framed from the trend projections of the NSSO data show that in rural India the increase in non-agricultural employment among males is at an increasing rate, whereas in the case of females this happens to be at a diminishing rate. In rural Kerala these increases are at a decreasing rate among both males and females.

To show whether there existed variations in gender participation in the different sectors of employment in India and Kerala, an independent 't' test was applied. This test in all the sectors in both India and Kerala has revealed significant variations.

The Census data between 1961-91 also reflect the same trend. During the period between the Census years from 1961 to 1991 the absorption of male workers in the primary sector ranged between 84 to 80 per cent in rural India, whereas that of females remained stagnant at 90 per cent. But in Kerala according to the 1991 Census also, 44 percentage of both the male and the female population worked in non-agriculture. Because of the definitional changes we are not including the figures for 2001 for analysis of trends. Still the available figures are reported just for added information.

The analysis of the decennial increase of workers absorbed in different sectors by using Census figures has also revealed some interesting facts. Of all the states in India, Kerala has recorded the least absorption of new entrants to agriculture in rural areas. In fact in the case of rural females 'not only the entire increase in female main workers during 1981-91 is absorbed outside agricultural sector, but even some of the main workers engaged in agricultural sector before 1981 have shifted to non-agricultural sector'. (Kulkarni 1994). The All India Census figures and that of Kerala are highlighted in table 4.9 and 4.10 respectively.

An enquiry into the factors behind this sectoral shift in Kerala may lead one to a number of paradoxical situations due to many factors. The primary sector in Kerala experiences acute labour shortage, especially of females despite the prevailing high level of wages. This 'mismatch between labour supply and labour demand ' often creates problems to farmers in the peak seasons of transplanting and harvesting of paddy. (Nair 1997, Kannan 1999). So the shift to non -agriculture need not be due to' push factors ' reflecting the inability of agriculture to hold more workers.

Table 4.9

Employment Structure in Rural India -- Census

India	Primary		Secondary		Tertiary		Total NA	
Sector/ Gender	M	F	M	F	M	F	M	F
1961	84.1	90.1	7.4	6.7	8.3	3.2	15.7	9.9
1971	84.1	90.0	6.5	5.5	9.3	4.5	15.8	10.0
1981	81.7	89.1	8.4	6.8	10.0	4.1	18.3	10.9
1991	79.8	89.5	7.3	5.5	12.9	5.0	20.2	10.5
2001*	69.7	79.9	NA	NA	NA	NA	30.3	20.1

Source: Government of India, Census reports.

Table 4.10

Employment Structure in Rural Kerala --Census

Kerala	Primary		Secondary		Tertiary		Total NA	
Sector/ Gender	M	F	M	F	M	F	M	F
1961	66.3	64.7	15.0	25.5	18.7	9.8	33.7	35.3
1971	61.8	64.7	14.8	20.3	23.4	15.0	38.2	35.3
1981	57.0	61.2	16.7	20.8	26.3	18.0	43.0	38.8
1991	56.0	56.3	14.9	20.8	29.1	22.9	44.0	43.7
2001*	27.6	31.8	NA	NA	NA	NA	72.4	68.2

Source: Government of India, Census reports.

* Provisional figures which do not include fisheries and livestock in the agricultural sector.

NA- Not Available

The next question that naturally arises is whether this shift is due to greater demand in the non-agricultural sector. If it is so, it will get reflected in the quality and quantity of the work done by rural women. If these women are employed in regular jobs with reasonable earnings and better working conditions, it definitely is a mark of development and improvement in their status. But the irony is that this sectoral shift has often resulted in casualisation and merciless exploitation of even the educated labour force in rural Kerala. They are subjected to long hours of work on low wages and greater degree of casualness in the terms of employment.

In an industrially stagnant economy like that of Kerala, economic development can only be a partial determinant of rural female employment in non-agriculture. Whatever rural industrialisation the state had is due to the existence of the traditional industrial base which is also fast disappearing. Increased commercialisation, growing infrastructural facilities and the narrowing down of the rural-urban divide due to the efforts of the state to develop economically can be cited as positive factors in this shift of female workers.

Social development also has contributed to the sectoral shift of women workers. The existing literature attributes this phenomenon in general more to social development than to economic development. For instance one prominent determinant of social development identified in the state is increased literacy that promotes capabilities (Dreze& Sen 1995). It has also helped to remove most of the traditional inequalities of caste, class and gender. However, the spread of education has had a negative impact on work participation especially in the primary sector. The men and women of the younger generation are reluctant to take up primary sector employment

and choose to withdraw from labour force rather than work on land (Francis 1990, Nair 1997).

As regards the trend in the secondary sector there is a conflict in evidence from the two databases both at the national and at the state level. While the NSSO data shows an increase in the secondary sector employment, the Census figures indicate a decline in the long as well as in the short run for both males and females. At the national level the decline is from 7.4 per cent to 7.3 per cent for males and 6.7 to 5.5 for females. The corresponding decline at the state level happens to be from 15 per cent to 14.9 per cent for males and 25.5 to 20.8 per cent for females for the period 1961-1991. However, the increases noticed in the NSSO reports for the corresponding periods are only marginal and cannot be expected to remain as such in the coming years. The industrial backwardness and the existence of strong trade unions with political backing may hamper the chances of employment generation in this sector. Still, because of the docile nature of women workers the employers may prefer to employ women in this sector wherever possible. This could be the reason why the female industrial workers outnumber the male workers in the industrial sector of the state (Directorate of Factories and Boilers 1989).

A further break-up of the secondary sector reveals a more or less similar trend at the national and state level, the estimates of the latter being higher. Thus during 1961-91 there exist evidences of increase in the share of non-household manufacturing at the expense of household manufacturing. The decline in the share of household industry is sharper for female workers and it more than offsets the increase in the non-household manufacturing (Census 1991). In the industrial category of construction the participation of male and female workers increased in both NSSO and Census estimates.

Rising trends in participation are observed in both databases in the tertiary sector and in the case of males the magnitude of increase is also found matching. In its entire sub sectors there are evidences of increase in the proportion of male and female workers in rural India and Kerala, both the size and increase in rural Kerala being substantial in comparison with that of India. For rural females the level of employment in this sector corresponds to 17.5 and 5.80 percentages in the latest NSSO round. The percentage points of increase at the national level for males and females respectively are 5.6 and 0.70 whereas for the state these are 10 and 8.4 respectively. Table 4.11 and 4.13 provide a general comparison of the changes in the industrial distribution of workers in rural India and Kerala from NSSO and Census data. In order to know the significance of these variations gender-wise, an ANOVA test was done for both the NSSO and Census data. The results of ANOVA are reported in table 4.12 and 4.14 respectively.

As is evident from the ANOVA tables there is no significant variation in male participation in various non-agricultural activities between India and Kerala in both databases. However, in the case of females while the NSSO data shows significant variation, the Census data shows no such variations.

Table 4.11

Change in the Sectoral Composition of Workers:

India and Kerala -NSSO

NSSO DATA 1977-78 TO 1999-2000				
Sector	Males		Females	
	India	Kerala	India	Kerala
Total Non-agriculture	9.4	16.44	3.0	12.92
Manufacturing	0.9	-4.13	1.7	1.95
Construction	2.8	9.54	0.5	1.98
Secondary Sector	3.8	6.44	2.3	4.57
Trade & commerce	2.8	5.83	0.0	1.71
Tranasport &communications	2.0	4.70	0.0	-0.20
Others	0.8	-0.53	0.7	6.89
Tertiary sector	5.6	10.00	0.7	8.35

Source: Computed from the NSSO reports

Table 4.12

ANOVA Results -NSSO data

Source of Variation	Sum of Squares of deviation	Mean square of deviation	df	F	Sig
Males					
Between the group	25.48	25.48	1	1.05	0.324
Within the group	341.27	24.38	14		
Total	366.75		15		
Females					
Between the group	53.55	53.55	1	5.28	0.037
Within the group	142.08	10.15	14		
Total	195.63		15		

Table 4.13

Change in the Sectoral Composition of Workers:

India and Kerala - Census

Sector	Census data from 1961 to 1991			
	Males		Female	
	India	Kerala	India	Kerala
Total Non-agriculture	3.90	9.10	0.30	7.58
Manufacturing	-0.40	-3.77	-1.20	-6.00
HHD Manufacturing	-2.50	-3.47	-2.80	-12.34
Non-Household Manufacturing	2.10	-0.30	1.60	6.35
Construction	0.30	3.67	0.00	1.30
Secondary	-0.10	-0.10	-1.20	-4.70
Trade & Commerce	1.20	6.04	0.00	2.11
Transport &Communications	0.80	2.95	0.00	0.69
Others	2.60	1.38	1.80	10.31
Tertiary	4.60	10.38	1.80	13.11

Source: Computed from the Census reports

Table 4.14

ANOVA results - Census data

Source of Variation	Sum of Squares of deviation	Mean square of deviation	Df	F	Sig
Males					
Between the group	7.47	7.47	1	0.53	0.47
Within the group	251.41	13.99	18		
Total			19		
Females					
Between the group	14.71	14.71	1	0.45	0.51
Within the group	589.46	32.74	18		
Total	604.16		19		

4.3 Status of Employment in Rural Areas

The status of employment provides a perception of the institutional aspects of workforce i.e. in the nature of the contract that is involved in the distribution of workers. Since sectoral shift and changes in employment status are parts of the same process, i.e.diversification to non-agricultural activities, it is necessary that we take a look at the status distribution of the rural workforce. According to their status of employment, NSSO has classified the employed persons into three broad categories. These groups are (i) self-employed (ii) regular employees and (iii) casual labour. Table 4.15 shows the distribution of workers in rural India in accordance with their status of employment in the NSSO data. A similar table for Kerala is provided as table 4.16.

It is to be noted that a higher percentage of the female workers are seen to be self-employed than the male workers, the disparity being more evident in Kerala. While the self-employed women constitute 53 per cent of the workers, the male workers who come under this category are only 38 per cent in the 55th round NSSO survey. It is also clear from the table 4.16 that there has been an overall decline in self -employment in rural areas of the country. In Kerala also a decline is noticed for rural males from the year 1977-78 and for rural females from 1983, but the decline had been less sharp. The quadratic equation fitted to the trend projections reveals this trend to be at an increasing rate for males and decreasing rate for females both at the national and regonal level.

Regarding regular employment there seems to have been a long-term decline for male workers at an increasing rate both at the national and at the state level. For females, regular employment increased in rural

Kerala at an increasing rate, whereas it remained constant in the long run for rural India over the years 1977-78 to 1993-94.

The share of casual labourers increased among the male working population in rural India and Kerala. However, the rate of increase is found to be falling at the all India level, whereas it is found to be rising in the state. Among the rural females the trends are anyway different. While the casual labourers in rural India show a steadily increasing trend, in rural Kerala we observe a gradual decline from the late 70s to the late 90s.

Table 4.15

Status Distribution of Workers in Rural India

Year\Status\ Gender	MALE			FEMALE		
	SE	RE	CL	SE	RE	CL
1977-78	62.8	10.6	26.6	62.1	2.8	35.1
1983	60.5	10.3	29.2	61.9	2.8	35.3
1987-88	58.6	10.0	31.4	60.8	3.7	35.5
1993-94	57.7	8.5	33.8	58.5	2.8	38.7
1999-00	55.0	8.8	36.2	57.3	3.1	39.6

Source: Government of India, NSSO various round
SE- Self Employed, RE- Regular Employed, CL- Casual Labour

Table 4.16

Status Distribution of Workers in Rural Kerala

Year\Status\ Gender	Male			Female		
	SE	RE	CL	SE	RE	CL
1977-78	48.70	13.56	37.44	55.50	8.13	36.13
1983	44.30	15.41	40.19	58.71	9.86	31.43
1987-88	44.60	12.20	43.20	57.70	9.40	32.90
1993-94	40.80	12.30	46.90	55.00	9.70	35.30
1999-2000	38.10	13.00	48.90	53.00	15.00	32.00

Source: Government of India, NSSO various rounds

The increased share of self employed and regular employed among women in rural Kerala is no doubt a reflection of their improved social and educational status. At the same time we cannot rule out the possibility of reduced economic status because of our earlier evidences of low level participation rates and high rates of unemployment among them. More insights are needed with regard to the nature of jobs of the diversified workers and the present status of the displaced workers, who had opted out of the primary sector, to reach a meaningful conclusion about their economic status. In this study a modest attempt is made towards this direction.

To summarise, this chapter has presented the available empirical evidences from secondary data sources on the changes in the composition of rural employment in Kerala. The empirical evidences highlighted are the following:

The rural female work participation rate in Kerala is very low compared to that of India as a whole and most of the states and it is very much lower than the participation rates of rural males. Consequently unemployment rates among rural women are also high in Kerala.

Still the share of rural female employment in the non-agricultural sector is quite high. In both the NSSO and Census estimates female work participation in the non-agricultural sector in rural Kerala (40 and 44 per cent respectively) is substantially higher than those in rural India (15 and 10 per cent respectively). In the Census estimates the share of female workers in non-agricultural activities equals that of males, both being 43 per cent.

Within the rural non-agricultural sector, the female workers are mainly engaged in secondary activities in India and Kerala with a rise in their share in non-household manufacturing and a decline in household manufacturing. However, the evidences are that they are being increasingly diversified into the tertiary sector. Really, the increase in their non-agricultural activities in the state can be directly attributed to the changes in the tertiary sector.

There has occurred a decline of casual labourers among rural females in the long run in Kerala whereas, a rise is seen among the regular employed. This is against the trend of casualisation at the national level.

Together these findings are only broad indicators and do not provide a clear picture about the nature of non-agricultural employment of women workers in rural Kerala. Whether the increasing employment in rural areas is demand-induced and therefore offers a reasonable level of productivity and income could be assessed only on the basis of an examination of the

pattern of activities in which employment is growing. A macro level analysis is quite inadequate to draw conclusions on these lines. Because of the inter-regional variations even a small state like Kerala is too large to be analysed as a single homogeneous unit. So to unravel the underlying causes and to ascertain the consequences of the growth of non-agricultural employment, a micro study of rural households in Ernakulam district is considered worthwhile.

CHAPTER V

TRENDS AND PATTERN OF FEMALE EMPLOYMENT – AN INTER-DISTRICT ANALYSIS

The pattern of employment among the rural females in the districts of Kerala is analysed in this chapter. Since the only source of data for the district level analysis is the Census, we make use of the Census figures for the years 1961, 1981, 1991 and 2001[1]. The inter-district differentials in rural work participation, differences in the sectoral compositions and gender disparities in these respects are discussed in detail. But before we go into this analysis it would be worthwhile to have a brief view of the State of Kerala and its regional peculiarities.

5.1 Profile of the State

Kerala is a small State located in a narrow strip of land in the southwest corner of the Indian Sub-continent. The State stretches from Kasaragod in the North to Trivandrum in the South and Western Ghats in the East to Arabian Sea in the West. With an area of 38,863 Sq.Km. and a population of 31.8 million the State has a population density of 819 persons per Sq.Km, which is quite high compared to other States (Census 2001). In fact the area of the State is only 1.27 per cent of the total area of the country, but it supports 3.44 per cent of India's population.

14 districts, 63 taluks, 152 blocks, 1452 villages, 5 municipal corporations, and 53 municipalities constitute the State. In the rural areas of Kerala, the villages are so close to each other that it is almost impossible to demarcate the boundary of one village from another. One village seems

to merge with others and together they are often found to be as large as towns in terms of population, size and density.

The demographic and social indicators of development point out Kerala as an advanced State. It has the uniqueness of having a sex ratio that favours women. It is the most Literate State in the country. The population growth rates of the State had remarkably declined during the past decades. The health indicators as mentioned earlier like the Crude Birth Rate, Crude Death Rate and Infant Mortality Rate show Kerala to be well ahead of all other States in the Indian Union. The State is often cited as a big success in providing its citizens with services that could improve the quality of life due to public action and massive investments in infrastructure for health and education (Dreze and Sen 1995). The wide spread of education in the State has often been cited as both a cause and an effect of the reduced social inequalities of caste, class and gender. Women in Kerala have been a vital force behind these social achievements.

Increased entitlements due to the successful implementation of land reforms, the existence of a well-knit public distribution system and the enhanced social and political status of the labour class etc have changed the attitude of the labour force in many ways. The newly-gained self confidence and the political backing provided by the trade unions often stood as obstacles in resolving many a crisis that tended to upset the relationship between the labourers and the employers. This has resulted in the drying up of investments and has even led to the migration of industrial units to the neighbouring States where labour is more docile and cheap. Hence the State has failed in diverting investments to the commodity producing sectors in agriculture and industry. This has resulted in low per capita income, wide income disparities and a higher incidence of unemployment, especially educated unemployment.

The coexistence of this high quality of life with low level of income is often described as 'Kerala model of development' or looked upon as a 'development puzzle'. It has also been a subject of wide discussion among the scholars within and outside the region. (Dreze and Sen 1995, Frank and Chasin 1992, Kannan 1990 & 1999, Mathew 1995 &1999, Mukherjee and Issac 1994, Prakash 1994). These studies in general, identify the paradoxical nature of development first and then goes on to explain the reasons for high social development and slow economic development.

Historical and political factors are considered to be central in achieving the high social development profile, the agencies actively involved in the process being social and educational reformers, politically vigilant public, literate women and the radical and progressive political parties.

As for the reasons of economic backwardness, most writers point towards the lack of industrial development and the consequent stagnation in commodity production in the State. This in turn is attributed to the existence of strong trade unions that resist technological changes inimical to labourers and their militant demands for higher wages and welfare measures.

In table 5.1 certain development indicators of Kerala that bring out the facts that initiated these studies are given.

Table 5.1

Selected Development Indicators of Rural Kerala

Population (2001)	Male	Female	Persons
	11,450,785	12,120,699	23,571,484
Literacy rate(2001)	93.54%	86.79%	90.05%
Life Expectancy at birth (1992-96)	70.3	74.9	72.8
Death Rate(1997)	7.6	5.0	6.3
Population Growth Rate (2001)	1.01		
Density per sq. Km.(2001)	819		
Average size of households (1999-2000)	4.5		
Sex Ratio(2001)	I059 females for 1000 males		
Birth Rate (1997)	18.3		
Maternal mortality rate (1998)	198 per thousand		
Infant Mortality Rate (1997)	15		
Total fertility Rate(1995-97)	1.8		
Per Capita SDP at 1980-81 Prices (1997-98)	Rs 2490		
Growth rate of Per Capita SDP (% per year)	2.43		
Per Capita Monthly Consumption Expenditure	Rs.765.70 (NSSO 55th Rd)		
Average size of Holdings (1999-2000)	0.33 ha		
Number and percentage of people below poverty line (1991-2000)	20.97 lakhs (9.38 per cent)		
Total cropped area (1997-98)	2969002 ha		
Net irrigated area (1997-98)	32848 ha		
Value of agricultural Production (1999-2000)	Rs.6979		

Source: Census 2001
CMIE -Profile of districts 2000
Sample registration system Bulletin 1999
National Human Development Report 2001

5.2 Rural Work Participation in the Districts of Kerala

When we examine the rural work participation rates of the districts of Kerala, it can be seen that the gender disparity noted at the State level is a true reflection of the district scenario. In all the districts, all through the Census years of 1961,1981,1991 and 2001 the rural female workers had very low participation rates in comparison with males. While Idukki district always maintained the first position regarding the MWPR, it could gain that position with regard to females only in the latest Census. Till the last Census Palakkad district had dominance in the female work participation rates but it has declined in this Census year by 2.6 percentage points. The lowest participation rates for both males and females are noted in Malappuram district, followed closely by Kozhikode. In table 5.2 the rural work participation rates of the districts from 1961 onwards are given.

As for the trends, the male work participation rates have increased during the years between 1961 and 2001 in the rural areas of all the districts. The differences are higher in central Kerala with the highest variation in Ernakulam district, where the increase is recorded as 11.9 percentage point between 1981 and 2001. In the case of female workers in all the districts except Idukki, there has been a long-term decline in participation rates over the last few decades. The variations are more and the decline is continuous in the northern districts of the State and in Alappuzha. Though in Kannur, Ernakulam, Kottayam and Pathanamthitta an increase in female participation rates is perceptible between 1981 and 2001, it cannot be regarded as a steady rise. In all these districts the rates declined marginally in 1991. On the whole, the variations in the participation rates of these districts are marginal during the period between the Census years and cannot be taken as an indicator of any definitive of

trends. The changes in female rural work participation rates are shown in Figure 5.1

Table 5.2

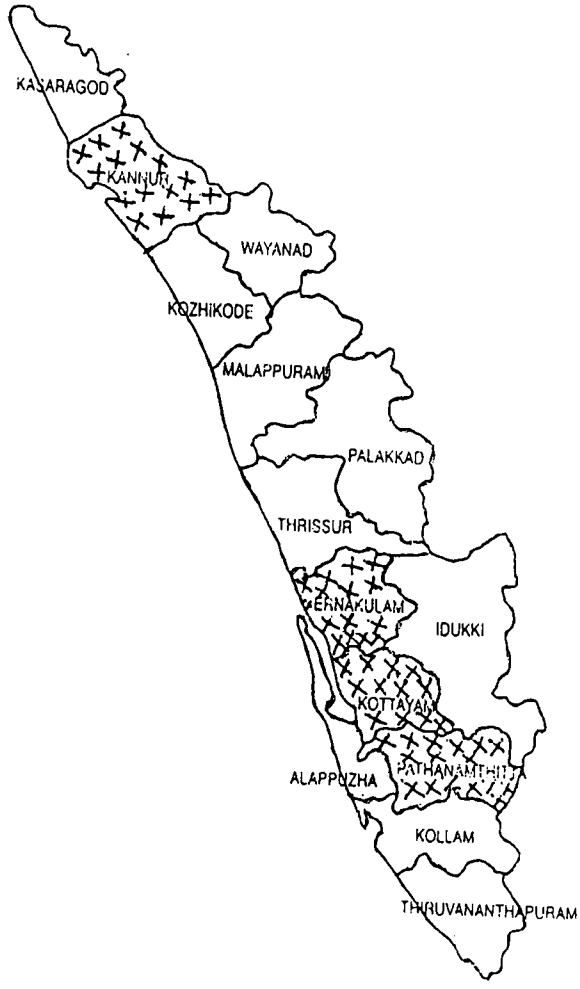
Rural Work participation Rates in the Districts - 1961-2001

DISTRICT	MWPR				FWPR			
	1961	1981	1991	2001*	1961	1981	1991	2001*
Kasaragod	-	45.80	46.50	49.60	-	21.80	21.30	21.50
Kannur	48.00	43.30	45.90	51.40	24.90	16.60	16.10	17.80
Wayanad	-	51.10	53.20	55.60		24.30	23.80	22.80
Kozhikode	47.20	43.40	44.10	47.50	15.30	12.90	10.30	8.40
Malappuram	-	40.40	40.80	42.70	-	11.00	9.00	6.60
Palakkad	51.80	47.20	48.70	52.20	28.20	25.30	24.40	21.80
Thrissur	45.70	41.50	47.10	50.80	22.70	19.50	18.90	15.40
Ernakulam	47.10	44.40	52.50	56.30	21.70	19.20	18.00	19.30
Idukki	-	51.70	55.30	58.60	-	24.10	24.40	28.80
Kottayam	48.70	47.20	50.80	52.80	16.80	12.70	12.30	14.10
Alappuzha	46.10	44.30	47.00	48.70	23.40	24.20	22.10	20.10
Pathanamthitta	-	46.50	48.40	48.00	-	13.10	12.60	13.40
Kollam	45.90	44.40	48.10	48.30	19.40	17.70	17.80	17.30
Thiruvananthapuram	46.40	47.40	51.50	51.80	17.10	15.20	16.40	14.00
Kerala	47.40	45.20	47.9	50.20	20.90	17.70	16.90	15.90

Source: Government of India, Census reports of various years

Fig. No 5.1

Changes in the Rural Female Work Participation Rates in the Districts of Kerala



xxx Increased RFWPR

5.3 Process of Diversification in Kerala

As shown in chapter four, Kerala is among the States that register the lowest work participation rates. As already noted, it has been showing a declining trend for females. The growth rate of employment is also very low. However, compared to other States, Kerala has a unique employment structure. Historically, the employment structure of the State was inclined towards non-agricultural activities, mainly due to the existence of some traditional industries that utilised the abundant natural resources, like coir and cashew. The land reform measures implemented in the late sixties radically changed the agrarian structure. It has succeeded in guaranteeing minimum land entitlements to millions of labour households and they have benefited in terms of increased economic security, greater self-respect and improved bargaining power (Dreze and Sen 1995).

In the mid-seventies the lure of export markets encouraged the growth of commercial crops and the setting up of many agro-processing units in rural areas. It is these traditional and modern agro-based industries that maintained the pace of rural industrialisation in Kerala. So the growth in the share of non-agricultural employment could not bring about any increase in per capita income, since product per worker was not much higher than that of the agricultural sector. Many of these traditional industrial units declined in the late eighties and the State is unable to revitalise them.

Migration of workers to the Middle East, especially those skilled in non-farm jobs like masonry and carpentry from the middle and low-income strata of the society was a feature of the eighties. The increased flow of remittances from these Gulf migrants had also opened up a major avenue

of non-agricultural work i.e. construction. At the same time the nonavailability of skilled workers increased the wage rates of those who remained and this to a great extent, enabled their women folk to be free from work. The return of the migrants and the depression in real estate activities recently, has reduced the volume of construction work in the State and necessitated the re entry of these women into their former jobs.

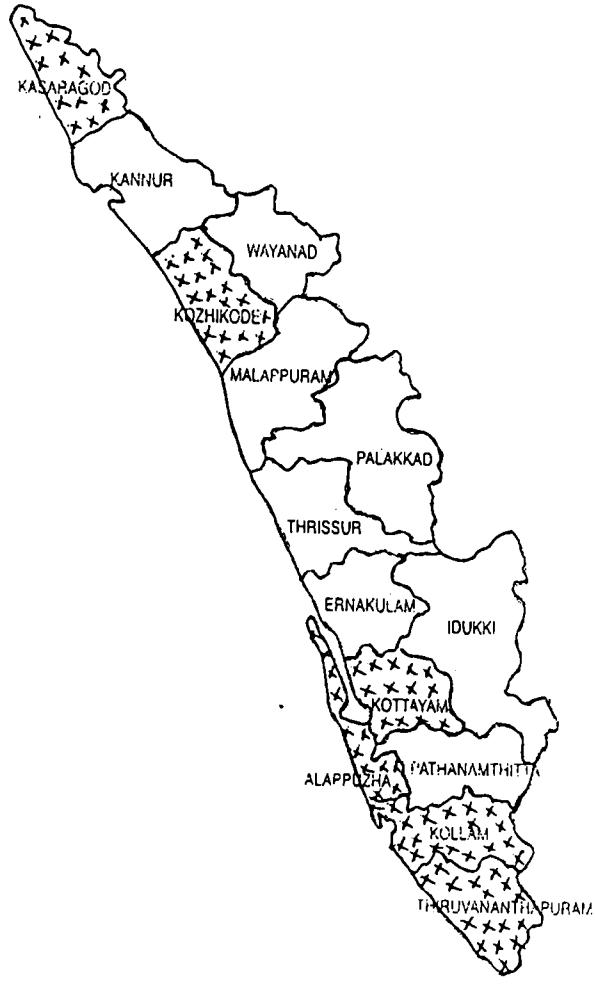
All these create doubts regarding the sustainability of the process of employment growth in the non-agricultural sector. At the same time there has occurred a rapid proliterisation of the rural workforce, especially of the females, due to the continuing fragmentation of holdings and the low labour-absorbing nature of commercial crop cultivation. There is much scope for casualisation of females in construction activities also. The spread of education and the increased years of schooling that a woman gets today in Kerala act as a negative force which turns them away from agricultural work. Thus the much-lauded female literacy and gender equality in Kerala seem to have brought in the forces of sanskritisation and westernisation among the middle and higher income groups in rural Kerala. However, among the low-income groups it has resulted in mass withdrawal from the agricultural sector to seek low paid casual jobs in the industrial and service sectors.

5.4 Sectoral Composition of Rural Female Workers in the Districts of Kerala

In order to understand the employment structure of rural workers in the districts of Kerala we first examine their sectoral composition. Table 5.3 presents the sectoral composition of the rural workers in different districts in the latest available Census on the same i.e. 1991. Even though the provisional figures on work participation for the Census year 2001 are

Fig 5.2

Rural Female Non-Agricultural Participation in the Districts of Kerala



xxx Increased Non-agricultural Participation

available, the sectoral breakup by detailed industrial categorisation is yet to be published[2].

Except for a few northern districts i.e. Kannur, Wayanad, Malappuram, Palakkad and the tribal district of Idukki, all districts of the State have a higher percentage (43.66) of females working in the non-agricultural sector than that of the State as whole. The districts mentioned as exceptions are of course ranked as the backward districts of the State for many other reasons also. In the southern districts of the State the female non-agricultural participation is generally high, even higher than that of males. It varies between 70 per cent in Kollam to 16.5 per cent in Idukki. The sectoral composition of rural female workers in the districts of Kerala is also shown in Figure 5.2.

When we look at the sectoral composition within the non-agricultural sectors, it is observed that in all the districts except Kasaragod, Kollam and Alappuzha the share in tertiary sector is higher than that in the secondary sector. These three districts employ 51.06, 45.13 and 37 per cent respectively of their female labourers in the secondary sector. Of these, in the first two districts this sector gains prominence among all other sectors of employment mainly due to the existence of the industries like beedi and cashew. Besides these, Kozhikode, Thrissur and Thiruvananthapuram districts also have a greater proportion of females than males in the secondary sector. The districts with low share of secondary workers are Wayanad, Idukki, Palakkad and Pathanamthitta in that order. In the tertiary sector Pathanamthitta ranks first (43 per cent) and Palakkad the lowest (11.03 per cent). In Pathanamthitta and Thiruvananthapuram districts the female participation rates in the tertiary sector are higher than those of males.

Table 5.3

Sectoral Composition of Rural Workers in the Districts of Kerala

Census 1991

District	Primary		Secondary		Tertiary		Non-Agriculture	
	M	F	M	F	M	F	M	F
Kasaragod	57.82	37.66	13.93	51.06	28.25	11.28	42.18	62.34
Kannur	56.00	69.05	14.10	12.30	29.40	18.65	43.60	30.95
Wayanad	73.50	82.89	6.30	2.84	20.20	14.27	26.50	17.11
Kozhikode	43.30	38.39	17.30	24.11	39.40	37.50	56.70	61.61
Malappuram	53.50	62.66	14.50	9.98	32.00	27.36	46.50	37.34
Palakkad	56.30	83.27	15.90	5.70	27.80	11.03	43.70	16.73
Thrissur	43.60	52.40	21.60	23.84	34.80	23.77	56.40	47.61
Ernakulam	48.10	51.11	22.00	20.78	29.90	28.12	51.90	48.90
Idukki	76.70	83.51	6.50	2.59	16.90	13.91	23.30	16.50
Kottayam	57.40	44.31	13.60	13.46	29.00	42.24	42.60	55.70
Alappuzha	50.90	42.57	16.30	37.00	32.80	20.43	49.10	57.43
Pathanamthitta	64.10	51.21	11.30	5.94	24.60	42.85	42.60	48.79
Kollam	57.40	29.42	14.60	45.13	28.00	25.45	35.90	70.58
Thiruvananthapuram	62.60	43.26	12.20	27.36	25.20	29.38	37.40	56.74
Kerala	56.00	56.34	14.93	20.75	29.07	22.91	44.00	43.66

Source: Census 1991

Even in the districts having low participation in non-agriculture the trend during 1981-2001 is for an increase in their share in such employment. More insights into this diversification at the district level are possible only by a comparison of the participation of rural workers in the non-agricultural sector over the different Census years. But any attempt at a comparative study is rendered difficult by reorganisation of the districts of Kerala in 1972, 1980, 1982 and 1984[3]. So for inter temporal comparisons of sectoral composition we utilise only 1981,1991 and 2001 Census data. The changes in the non- agricultural employment of rural workers in the districts of Kerala over the period 1981-2001 are shown in Table 5.4. As in 2001 Census all workers except cultivators and agricultural labourers are treated as non-agricultural, we follow the same definition for the other Census years also[4].

Table 5.4 reveals that there has occurred a substantial increase in the participation of non-agricultural activities by male as well as female workers in almost all the districts of Kerala during the period 1981-2001. A decline in non-agricultural participation is noted only among the female workers in Idukki district and male workers in Thiruvananthapuram district.

The rise in non-agricultural participation varies from 2.43 percentage point in Idukki to 27.33 percentage point in Kannur for male workers. For female workers these percentage differences vary from 13.92 in Wayanad to 36.03 in Malappuram. These wide disparities regarding both the male and female workers are mainly because of the decline in the cultivated area, especially that of paddy, following the commercialisation of agriculture. Government programmes of diversification of economic activities, and increased socio-economic status in terms of literacy, health care and income have also contributed towards this end. Rural women in

Kerala are thus more inclined to take up employment in the non-agricultural sector, where they expect regular and more remunerative work, which also enhances their social status.

Table 5.4

Rural Non-agricultural Employment in Kerala 1981-2001

District	Male				Female			
	1981	1991	2001	% Diff	1981	1991	2001	% Diff
Kasaragod	NA	56.59	83.20	26.61*	NA	67.05	86.10	19.05*
Kannur	56.07	60.78	83.40	27.33	40.10	39.11	59.80	19.70
Wayanad	39.90	48.85	50.90	11.00	37.48	44.84	51.40	13.92
Kozhikode	76.43	73.82	83.50	7.07	63.74	69.13	80.50	16.76
Malappuram	51.31	53.06	75.50	24.19	30.17	39.43	66.20	36.03
Palakkad	46.56	47.26	62.50	15.94	18.11	18.53	32.40	14.29
Thrissur	64.24	64.81	81.70	17.46	47.41	51.25	69.80	22.39
Ernakulam	62.00	61.54	88.10	26.10	45.90	57.60	73.30	27.40
Idukki	45.97	54.33	48.40	2.43	63.76	67.62	54.90	-8.86
Kottayam	53.79	55.15	75.30	21.51	55.51	59.68	80.70	25.19
Alappuzha	60.07	59.03	76.50	16.43	55.37	58.71	77.00	21.63
Pathanamthitta	NA	42.32	60.80	18.48*	NA	55.19	77.50	22.31*
Kollam	47.17	49.08	69.20	22.03	63.31	73.24	89.20	25.89
Thiruvananthapuram	83.87	43.24	75.50	-8.37	59.91	57.92	83.40	23.49
Kerala	54.30	54.70	72.40	18.10	46.09	51.56	68.20	22.11

Source: Government of India, various Census reports
*Difference between 1991 and 2001

A further break-up of the changes in the different sectors of employment can be attempted only for the Census years 1981 and 1991[5].

This is shown in table 5.5. The decline in primary sector varied from 0.74 per cent in Palakkad to 12.16 per cent in Kollam. With regard to the secondary sector in seven districts the share declined. This decline was marginal in Thrissur, Palakkad and Ernakulam, but it was more sharp in Kannur and Thiruvananthapuram with 11.45 and 7.81 percentage points. It is also revealed from table 5.5 that in all the districts employment in the tertiary sector increased over the years 1981- 91. The magnitude of the increase ranged from 0.61 percentage points in Alappuzha to 10 percentage points in Kozhikode.

Table 5.5

Changes in the Sectoral Composition of Female Workers between 1981 and 1991

District	Primary	Secondary	Tertiary
Kannur	5.30	-11.45	6.14
Wayanad	-7.27	0.66	6.61
Kozhikode	-6.91	-3.21	10.12
Malappuram	-8.55	1.42	7.13
Palakkad	-0.74	-0.74	1.48
Thrissur	-3.69	-0.05	3.74
Ernakulam	-6.10	-1.73	7.84
Idukki	-6.24	0.17	6.06
Kottayam	-3.92	-3.98	7.91
Alappuzha	-3.35	2.75	0.61
Kollam	-12.16	9.36	2.79
Thiruvananthapuram	2.13	-7.81	5.68
KERALA	-4.84	-0.80	4.90

Source: Computed from the Census data.

Thus there is clear-cut evidence for the fact that in all the regions of Kerala non-agricultural employment of rural women is increasing with more and more of them getting diversified into the tertiary sector. However, how far is this sectoral shift in employment an indication of the new opportunities for women? Has this shift been induced by distress or by increased demand in other sectors? These are important questions that need to be answered, and therefore to be analysed in detail in this chapter. For this purpose an attempt is made to find out the determinants of rural female non-agricultural employment by using the available secondary data.

5.5 Determinants of Female Non-agricultural Employment in Rural Kerala

In order to identify the main factors that explain the changes in employment structure many studies have made use of macro statistics from either NSSO or Census. Most of the NSSO based studies have tried to reach conclusions regarding the inter-state differences in employment structure, whereas the Census-based ones concentrated more on inter-regional diversification. Using innumerable variables most of these studies have tried to establish some meaningful relationships with the direction of sectoral shift. Some of the significant studies, their methodology and findings are reported in the third chapter.

As a prelude to our empirical enquiry this study has also attempted to find the factors underlying non-agricultural employment of rural women for the Census years 1981, 1991 and 2001. But, instead of the usual regression exercises we have made use of the technique of factor analysis, for the reasons cited earlier in the introductory chapter.

The standardised variable chosen for factor analysis is the percentage of rural female workers in non-agriculture (PRFNAW). Among the determinants we have included as many available variables as possible that may have even a slight influence on it after a careful review of the existing literature. A detailed description of the variables and the sources from which they were obtained are given in Appendix II. The data set used for factor analysis is also shown as Appendix III.

The following steps were adopted to reach the final result in this factor analysis:

As a first step the available secondary data for the years 1981,1991 and 2001 were screened and tested for sample adequacy. Correlation Matrix (R matrix), Kaiser-Meyer-Olkin (KMO) measure and Barlett's Test of sphericity were used for the test[6].

In the second stage factor loadings were estimated by using the Principal Component Analysis (PCA). Table 5.6 gives the descriptive statistics of the variables used in the three years for which we have done the factor analysis.

Table 5.7 gives the communalities of the variables before and after extraction through PCA. For each variable the communality is the proportion of the variance of that variable that can be explained by common factors. PCA works on the initial assumption that all variance is common; therefore before extraction the communalities are all 1. In effect all of the variance associated with a variable is assumed to be common variance. Once the factors have been extracted, we have a better idea of how much variance is in reality common. The communalities in the column labelled extraction reflect this common variance. For example we

can say that 84.7 per cent of the variance associated with variable 1 in 1981 is common or shared variance.

Another way to look at these communalities is in terms of the proportion of variance explained by the underlying factors. Before extraction there are as many factors as there are variables, so all the variance is explained by the factors and communalities are all 1. However after extraction some of the factors are discarded and so some information is lost. The retained factors cannot explain all the variance present in the data, but they can explain some. The amount of variance in each variable that can be explained by the retained factors is represented by the communalities after extraction .

Table 5.6

Descriptive Statistics

Variables	Mean			Standard Deviation		
	1981	1991	2001	1981	1991	2001
AFSIZE	5.70	5.21	5.21	0.41	0.54	0.54
ASHOLD	0.45	0.38	0.38	0.22	0.22	0.22
DENSITY	658.36	664.93	872.07	257.70	284.51	380.44
IDIND	0.55	0.47	0.47	0.18	0.21	0.22
MWPR	5.31	48.56	51.02	3.24	3.85	4.09
NDP	35376.82	43307.14	214939.29	10321.12	26910.44	83847.96
NSA\TGA	61.78	61.20	61.57	14.71	14.51	14.20
PBSPOP	23.70	30.02	25.27	3.72	5.42	3.19
PANAU	9.11	8.41	9.83	1.85	3.95	3.82
PANFC	41.02	51.20	52.99	11.31	9.18	10.99
PRFLIT	64.84	84.93	86.70	8.97	6.00	4.99
PUPOP	17.91	23.40	23.06	10.48	15.26	15.18
SEXRATIO	1032.09	1035.93	1053.71	38.05	36.67	34.80
SNANDP	59.76	61.02	68.71	8.38	12.95	11.90

Table 5.7

Communalities

Variables	Extraction		
	1981	1991	2001
AFSIZE	0.847	0.924	0.869
ASHOLD	0.848	0.875	0.908
DENSITY	0.807	0.729	0.772
IDIND	0.649	0.695	0.766
MWPR	0.936	0.938	0.981
NDP	0.900	0.622	0.798
NSA\TGA	0.802	0.899	0.913
PBSPOP	0.917	0.914	0.870
PANAU	0.676	0.835	0.816
PANFC	0.906	0.845	0.887
PRFLIT	0.893	0.928	0.793
PUPOP	0.909	0.647	0.744
SEXRATIO	0.912	0.914	0.928
SNANDP	0.829	0.834	0.951

In tables 5.8, 5.9 and 5.10 the rotated component matrices that display the coefficients or loadings that relate the variables to four factors are given. Loadings are the correlations of the variables with factors. For instance the correlation between the variable PANAU and factor one general economic development is 0.888 in the rotated component matrix for 2001. The correlation of this variable with the second and third factor is totally negligible and the correlation with factor four is only 0.157. Thus we can say that variable 1 is associated with factor 1. Likewise, the variable that is having the second best correlation with general economic

development in 2001 is the Share of Non-Agricultural sector in the Net Domestic Product (SNANDP) with loadings 0.873. Continuing with this analysis, we have found the different variables correlated with the different factors in all the three Census years put to factor analysis.

The factors thus identified as prominent in determining the rural female participation is constituted by variables that are clear indicators of development rather than distress. This is evident from the rotated component matrices.

The variables got included under the first factor in the year 2001 are Percentage of Area under Non-Agricultural Use (PANAU), Share of Non-Agricultural sector in the Net Domestic Product (SNANDP), Net Domestic Product (NDP) and Percentage of Urban Population (PUPOP). Since all these are related to the process of economic development in one way or other we have grouped them under the factor of general economic development, which is more often exogenous to women employment in non-agriculture. All these factors are significant in the sense that they give better opportunities and easy accessibility to non-agricultural employment for rural women. This factor for that reason explains 37.84 per cent of the variance of the standardised variable PRFNAW. This is evident from Table 5.11, which explains the total variance.

The result for 1991 also presents a similar picture. Here while the average size of landholdings seems to have had a negative influence, SNANDP alongwith infrastructure development index (IDIND) and population density (DENSITY) had positive effects. These variables again being indicators of economic development, we give the group the same label as in 2001 and it explains 36.78 per cent of the variance, which is more or less close to the value in 2001.

However, the results are somewhat different in 1981. Then the factor general economic development, mainly through urbanisation and increased non-agricultural activities is only of secondary importance explaining 22.67 per cent of the total variance.

The first factor this year is constituted by the variables like Percentage of Rural Female Literacy (PRFLIT), Percentage of Below Six Population (PBSPOP) and Population Density (DENSITY). We have designated these variables to form the group indicating social development. Increased female literacy points towards the educational environment in rural areas. Undoubtedly education acts as a facilitator in the efforts of the individuals to seek employment outside the primary sector and makes them aware of the new openings available in non-agriculture. Likewise the variables PBSPOP and DENSITY define the structure of the society. Thus the factor, social development, explains 29.25 per cent of the variance in female non-agricultural employment in the year 1981.

The factor that is second in importance in 2001 is the social and familial set up which is revealed by the variables, PRFLIT, Average Family Size (AFSIZE), Male Work Participation Rates (MWPR) and Percentage of Below Six Population (PBSPOP). As increased literacy is a positive factor that encourages non-agricultural participation, a large family makes it necessary for the women of the household to work and diversify their sources of income. At the same time increased work participation of male members reduces the need of the rural women to engage in economic activities. Children below the age of six are another familial responsibility that reduces the chances of women to work in distant places where non-agricultural work may be available. Family being the prime concern of most working women, this factor has added significance in our analysis. It

accounts for 16.76 per cent of the variance in 2001. In 1991 we have got almost the same variables as in 2001 except for the exclusion of PRFLIT. The familial factor thus explains 18.04 per cent of the variance that year also.

Demographic factors defined by the variables like Male Work Participation Rates (MWPR) and sex ratio (SEXRATIO) constitute the third factor 2001. In addition the variable AFSIZE also gets included in the year 1981. This factor accounts for 19.01 per cent of the variance in1981 and 16.25 per cent in 2001. In 1991, the factor that comes in the third position is cropping intensity that explains 14.4 per cent of the variance.

The fourth factor in all the Census years is the same which can be treated as indicators of commercialisation and female literacy, constituted by the variables like, Percentage of Area under Non-food Crops (PANFC) and PRFLIT both having a positive effect on female non-agricultural employment. The percentages of variance explained by this factor are 13.57,13.64 and 14.85 for the years 1981, 1991 and 2001 respectively.

In table 5.11 the total variances for 1981, 1991 and 2001 are explained. These tables show the statistics for each factor before and after the components are extracted. For principal components initial and extraction statistics are always the same. The total variances accounted for by the four different factors together in these years are 84.5, 82.87 and 85.70 percentages respectively. After rotation the percentages of total variance accounted for by all the factors do not change. However, the percentage accounted for by each factor does change. In the column labelled 'Total' the eigen values for the multivariate space of the original variables are ordered by size. Each value is the total explained by a factor.

Table 5.8

Rotated Component Matrix 2001

2001	Component			
	1	2	3	4
PANAU	0.888			0.157
NDP	0.868	-0.116	0.174	
SNANDP	0.873		0.407	0.153
PUPOP	0.859			
DENSITY	0.755		0.369	0.254
IDIND	0.742	-0.387	0.173	0.190
NSA\TGA	0.690	0.302	-0.397	0.434
ASHOLD	-0.660	0.181	-0.442	-0.494
PBSPOP	-0.274	-0.515	-0.111	-0.216
SEXRATIO	0.233	-0.105	0.926	
PRFLIT	0.221	0.858	0.149	0.676
AFSIZE	0.160	0.900	0.177	
PANFC	0.127		0.157	0.915
MWPR		-0.470	-0.781	-0.385

Component Transformation Matrix

Component	1	2	3	4
1	0.852	-0.147	0.324	0.383
2	0.150	0.946	0.233	-0.167
3	0.479	0.054	-0.793	-0.374
4	-0.148	0.283	-0.461	0.828

Table 5.9
Rotated component matrix 1991

1991	Component			
	1	2	3	4
ASHOLD	-.896			-0.258
SNANDP	0.861		0.231	-0.196
IDIND	0.799	-0.160	0.154	
DENSITY	0.774	0.151	0.235	0.229
SEXRATIO	0.760	0.337	-0.342	-0.325
PANAU	0.732	-0.148	0.517	
PUPOP	0.641		0.476	
PRFLIT	0.544	-0.238	-0.269	0.709
PBSPOP	-0.511	-0.768		-0.249
NSA\TGA	0.365	0.138	0.759	0.413
MWPR	-0.365	-0.892		
NDP	0.101	0.127	0.736	-0.231
PANFC				0.910
AFSIZE		0.920	0.254	

Component Transformation Matrix

Component	1	2	3	4
1	0.933	-0.026	0.290	0.210
2	0.061	0.871	0.203	-0.444
3	-0.346	-0.021	0.883	0.316
4	-0.073	0.490	-0.307	0.812

Table 5.10

Rotated Component Matrix 1981

1981	Component			
	1	2	3	4
PRFLIT	0.848		-0.208	0.361
PBSPOP	-0.808	-0.178	0.481	
DENSITY	0.793	0.265	0.328	
PANAU	0.718	0.271	-0.177	-0.236
NSA\TGA	0.650	0.396	0.274	0.385
ASHOLD	-0.650	-0.516	-0.370	0.154
SNANDP	0.554	0.701		-0.173
IDIND	0.464	0.577		-0.311
AFSIZE	-0.311		0.843	0.184
SEXRATIO	0.220		0.635	-0.676
PANFC	0.155			0.939
PUPOP	0.139	0.935		0.110
NDP	0.131	0.928	0.129	
MWPR			-0.948	0.155

Component Transformation Matrix

Component	1	2	3	4
1	0.770	0.631	0.092	-0.020
2	-0.271	0.191	0.880	-0.341
3	-0.070	0.068	0.328	0.940
4	-0.574	0.749	-0.332	0.018

Rotation Method: Varimax with Kaiser Normalisation

Rotation converged in 18 iterations

Table 5.11 Total Variance

Year\ Factor	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
1981 Components	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.781	41.289	41.289	4.094	29.245	29.245
2	2.939	20.994	62.284	3.174	22.674	51.919
3	1.761	12.582	74.865	2.662	19.011	70.930
4	1.349	9.635	84.500	1.900	13.570	84.500
1991 Components	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.663	40.447	40.447	5.149	36.781	36.781
2	2.877	20.549	60.996	2.526	18.043	54.824
3	1.650	11.787	72.783	2.015	14.394	69.218
4	1.412	10.083	82.866	1.911	13.648	82.866
2001 Components	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.574	46.957	46.957	5.297	37.838	37.838
2	2.354	16.813	63.770	2.346	16.759	54.597
3	1.934	13.815	77.585	2.275	16.248	70.845
4	1.135	8.110	85.695	2.079	14.850	85.695

The basic conclusions that emerge from this chapter can, therefore, be stated thus:

Despite low work participation rates and wider gender disparities, the participation of rural women in non-agricultural jobs in almost all the districts of Kerala are at a very high level. As for the trends, a substantial rise in non-

agricultural participation is also noted over the Census years. Thus the increased concentration of women workers in non-agriculture explains the labour shortage widely prevalent in the agricultural sector in the State.

When we examined the possible determinants of this phenomenon, it was revealed that it is not the push forces that are dominant in explaining the situation. In all the Census years the first factors influencing women work participation in the non-agricultural sector turned out to be indicators of development, either economic or social. While social development got an upper hand in the 80s, economic development got an edge afterwards. The other prominent factors included are social and familial set up, demographic factors and commercialisation.

Notes

[1]1971 Census not included because of the underestimation of female workers that year.

[2]So far the published data of 2001 Census categorises the workers only into four broad categories of cultivators, agricultural labourers, household industry workers and other workers. Of these the first two are combined to constitute the agricultural sector. Workers engaged in fisheries, livestock and plantations figure in these estimates in the category of other workers and in the non-agricultural sector. So in some districts where more workers are engaged in these activities, the percentage difference in non-agricultural employment between the Census years will be wide, when 2001 figures are included.

[3]The district Idukki was formed on January 26th 1972 with three taluks from Kottayam district and one from Ernakulam. Wayanad was formed on November 1st 1980 with one taluk each from Kannur and Calicut. Pathanamthitta was formed on November 1st 1982 largely from Kollam district with some villages from taluks of Alappuzha district. Kasaragod came into being on May 24th 1984, formed out of the two northernmost taluks of Kannur district.

[4] In the table 5.4, for all the Census years workers in non-agriculture are constituted by clubbing together the industrial categories of household industry workers and other workers to be in tune with the definition of the 2001 Census.

[5]Sector wise break up of workers for 2001 has not yet been published.

[6]The correlation or Covariance matrix that contained Pearson's correlation coefficients between all pairs of variables and their significance level was computed. For factor analysis we need variables that correlate fairly well though not perfectly.

Variables that do not correlate with others have to be eliminated. Therefore the correlation matrix was used to check the pattern of relationships by scanning the significance values and looking for any variable for which the majority of values are greater than 0.05. By examining the R matrix the appropriateness of the data for factor analysis is ensured.

The KMO statistics represents the ratio of the squared correlations between variables to be squared and partial correlations between the variables. It varies between 1 and 0. A value of 0 indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations. So factor analysis is likely to be inappropriate. A value close to 1 indicates that the pattern of correlation is relatively compact and so factor analysis should yield distinct and relative factors. Kaiser (1974) recommends values greater than 0.5 as acceptable. In our study, for our data sets the values are above 0.5 and hence we confidently used factor analysis.

Bartlet's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work we need some relationship between variables and if the R matrix were an identity matrix then all correlation coefficients would be zero. Therefore we want this test to be significant (i.e. to have a significance value less than 0.05). The test tells us that $p< 0.041$ and the R-matrix is not an identity matrix and that therefore there are some relationships between the variables we have included in the analysis.

CHAPTER VI

PROFILE OF THE STUDY AREA AND SAMPLE HOUSEHOLDS

6.1 District Profile

Ernakulam District, the commercial capital of Kerala, has an area of 2407 Sq.Kms. that accounts for 6.19 per cent of the total area of the State. In population size, the district is the third largest in the State with a population of 30,98,378 persons. Nearly 53 per cent of this population is rural and the rest urban. It is also one of the districts with a high population density of 1051 persons per Sq.Km. as per the Census 2001.

Formed in 1958 by carving out the regions from the neighbouring Thrissur and Kottayam districts, Ernakulam comprises of the erstwhile Travancore and Cochin states. It is bounded by 30 Kms. coastal belt of Arabian Sea on the west, Kottayam and Alappuzha districts on the south, Idukki district on the east and Thrissur on the north. It extends to 38 Kms. north-south and 48 Kms.east-west lying between the latitude 9 degree 42'38" to 10 degree18'00" north and longitude 76 degree 12'00" to 76 degree 46'00" east. The average annual temperature is 30 degrees Celsius and the annual rainfall is 254 Cms, which is more or less the same as the total average rainfall of the State. The district is located 219 Kms. away from the State capital, Thiruvananthapuram, and the port city Kochi is located on the West Coast of the district.

Among the districts in Kerala, Ernakulam has a rural female work participation rate in non-agriculture (48.90 in 1991) that is close to the State average. Besides, the district ranks first in the State with regard to the share of income from non-agricultural sector, not just in the current year

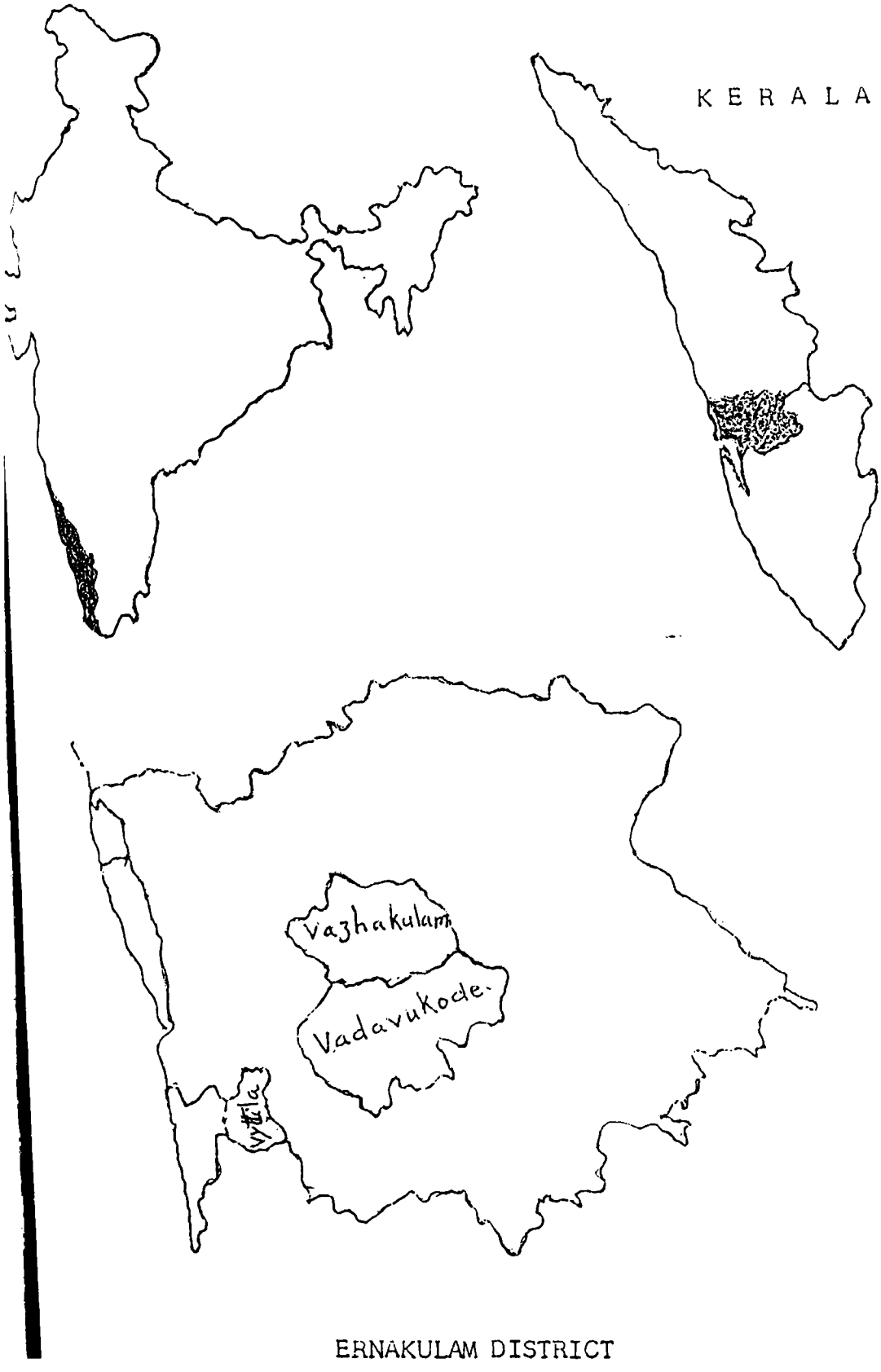
but all through the past decade. Here the non-agricultural sector is fast expanding (the growth rate being 12 per cent in 1998-99) and a fairly high percentage of sectoral shifts among rural women workers are noted between 1981 and 1991. If we observe other development indicators, we can see that the district ranks high in matters of per capita income, growth rate of income, literacy, education, health and social welfare activities.

The district can be divided into three natural agro-climatic zones according to the physiographic conditions- the high land, the middle land and the low land. But, for all development purposes the district is divided into 15-community development blocks, 8 municipalities, 86 grama panchayaths and one corporation (DES 1995). As mentioned in the methodology the study focuses attention on two villages each of the three blocks Vadavukode, Vazhakulam and Vyttila. These blocks are also representative of the three agro-climatic divisions. Of the villages selected Aikkaranadu and Thiruvaniyur of the Vadavukode block belongs to the high land region. Edathala and Vazhakulam of the Vazhakulam block lies in the mid land area while Maradu and Kumbalam of the Vyttila block are regions in the low land.

In this section an attempt is made to have a brief sketch of the area under study. An outline of the district showing the study blocks is given as Figure 6.1 and a profile of the selected blocks is given in table 6.1.

INDIA

Fig 6.1



ERNAKULAM DISTRICT

Table 6.1

Profile of the Selected Blocks

Block	Vadavukode	Vazhakulam	Vytilla
Area (Km^2)	185.95	131.64	33.14
Population	1,38,974	1,76,776	59,138
Males	70,245	89,155	29,460
Females	68,729	87,621	29,678
Density	747	1343	1784
Sex Ratio	978	983	1007
No of Panchayaths	6	6	2
No of Households	28722	33586	11438
Literacy Rate	90.83	88.57	94.73
Male	94.58	93.00	97.82
Female	87.01	84.08	91.69
WPR	33.08	30.77	29.77
MWPR	53.84	51.43	49.11
FWPR	17.96	14.40	10.58
No of Individual operational holdings (in lakhs)	2.50	3.40	3.40
Area of Individual operational holdings (in hectors)	11534	7571	2766

Source-Panchayath level statistics (DES 1995)

6.2 Vadavukode Block

Vadavukode block in Ernakulam district has an area of 185.95 Sq. Kms. With a population of 1,38,974 persons as per the 1991 census, it has a population density of 747 persons per Sq. Km. The sex ratio of the block is 978 females per 1000 males and the effective literacy rate is 90.83. The density and sex ratio of the block are lower than those of the other two blocks selected for the study. Still it has registered a higher number of female workers and the female work participation is recorded as 17.96 per cent. However, there exists a wide gap between the male and female work participation rates. The picture is similar in this matter in the other blocks also.

The block consists of six grama panchayaths constituting nine block panchayath divisions and two district panchayath divisions. It is situated 32 Kms. away from Kochi city between the towns of Ernakulam and Muvattupuzha. The average annual temperature is between 20 and 29 degrees Celsius and it gets an average annual rainfall of 200 Cms. The block has areas that are 10 to 850 meters above the sea level and the soil mostly noticed is laterite. In most parts of the block laterite stone and granite deposits are found in plenty.

All typical crops of Kerala, especially paddy, rubber, coconut, ginger, pepper, turmeric, cocoa, pineapple, tapioca, banana and nutmeg are cultivated extensively in the block. As a result the major avenue of work available in this block is agricultural in nature. However the shifting of crops from paddy to rubber and also to pineapple in recent years has reduced the scope of employment in this sector. The reduced prices of farm products in general and the lack of irrigation facilities in the block add new dimensions to the problem. The paradox of labour shortage along with rising unemployment is a characteristic feature of this block also.

Though it has several large and medium scale industrial units like Kerala Electricals Ltd, Synthyte Industrial Chemicals and Plant Lipids, FACT, Cochin Refineries, HOCL etc, labour absorption in the industrial sector, especially of women labour, is very low. The block also has around 102 SSI units of which women operate twenty-one units. Still the block has no industrial estate or any ancillary units having forward or backward linkages with the industrial units operating in and around the block. In fact this block is found to be only in the initial stages of rural non-agricultural transformation. The non-agricultural activities of women in the village tend to have a production and expenditure linkage to agriculture rather than industry or services. These activities mostly of traditional nature tend to be centered around the block and village boundaries with little dependence on rural urban links.

6.3 Vazhakulam Block

Vazhakulam block has an area of 131.64 Sq.Kms. and a population of 1,76,776 persons. The density per Sq.Kms of the block is 1343. The sex ratio is 983 females for 1000 males and the female work participation rate is 14.40. The female literacy rate is 84.08 and there is a wide gap in the literacy and work participation rates between the males and females of the block.

About 20 Kms. away from the Kochi City the block lies between the towns of Aluva and Perumbavoor. The average annual temperature in this area is 28 degree Celsius and it gets an average annual rainfall of 260 Cms. The soil is mostly laterite and in some regions, mainly on the banks of the river Periyar alluvial soil is also noticed. Because of the comprehensive network of canals of the Periyar Valley Irrigation Project the extent of cultivation is actually high. Paddy, Rubber, Banana, Vegetables, Pineapple etc are cultivated all through the block area. At the same time there is

ample scope for industries too in this block. In fact, the block has around 1993 industrial establishments employing around 50,000 persons. However, large and medium scale units are very few and the industry that is found in cluster in the block is that of saw mills. Besides, several chemical industries, and cottage industries of different products also exist in this region giving more opportunities to women workers in the secondary sector. Granite quarries are also noted in some parts of the block.

Another peculiarity of the block is the large-scale migration of the men folk to the Middle East. The remittances of these non-resident persons to some extent have flowed to the different sectors of the economy giving rise to additional avenues of employment. There are also inmigrants to this block area, both male and female. The male workers are found to be even from the far off states in North India. They work mostly in the factories in the industrial estate and in the sawmills in and around the block. The female workers who have migrated to this block mostly belong to the neighbouring district of Idukki. The main reason for this in migration is the low wages, which they receive in their native place and the militant nature of the labour unions in the domestic labour force.

6.4 Vyttila Block

The block is located in the outskirts of the Kochi City towards the south of the Ernakulam district. Having an area of 33.14 Sq.km. the block has a population of 59,138 persons. The population density is 1784 persons per Sq.Km. and the sex ratio is 1007 females per 1000 males. As a part of urbanisation there is large scale in migration of people to this block and that accounts for the high population density of the village. The literacy rate noticed among females is 91.69. Nevertheless the block has only 2619

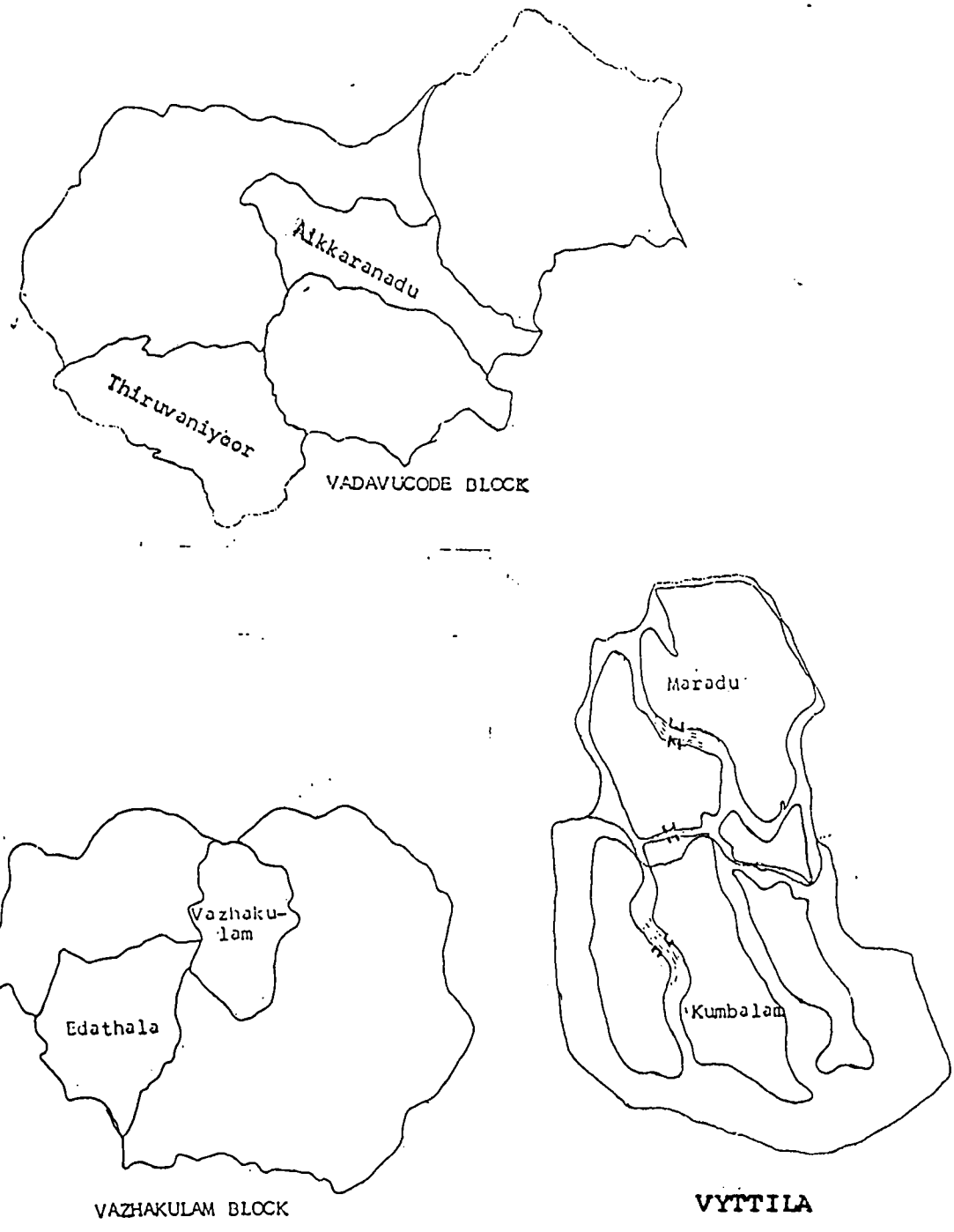
female workers according to the 1991 census and the female work participation rate is as low as 10.58 per cent.

Bounded by Vembanad Lake on the eastern and western side and the Kaithapuzha Lake on the southern side, the block actually comprises many small islands divided into 2 grama panchayaths for administrative convenience. The soil, though fertile, is basically sandy loam and there are also marshy areas that have reduced the scope of paddy cultivation. A tropical humid climate with an average of 30 degrees Celsius is experienced in the block and the average annual rainfall is 250 Cms. The extensive backwaters with many streams and rivulets emptying themselves into them enable the people in this area to engage in fishing with the help of a variety of both traditional and modern fishing equipments. So the mainstay of the population here is fishing. Even those who pursue other vocations have found fishing a profitable subsidiary occupation. Owing to water logging the farmers are reluctant to cultivate paddy and vegetables. In addition to this there is the problem of the influx of saline water. The farmers therefore, fill the paddy lands and use it for other less productive purposes. Coconut cultivation is also facing difficulties on account of various diseases caused by pests. This stagnant nature of the agricultural sector is also a factor contributing the shift of women to non-agricultural sector in this block. Proximity to the city and the lack of industrial establishments have made them to take up jobs in the tertiary sector. While the shops and establishments in the city attract the younger generation the older women are mostly employed as domestic helpers, fish and vegetable vendors and prawn peelers.

The villages selected from these three blocks for the study have a number of similarities as well as disparities. The socio-economic and demographic structure of the villages is given in table 6.2. The sketch of the villages and the respective blocks also is given in figure 6.2.

Figure 6.2

Map of Study Area



Profile of the Sample Villages

Block	Vadavukode		Vazhakulam		Vytilla	
Village	Aikkaranadu	Thiruvaniyur	Edathala	Vazhakulam	Kumbalam	Maradu
Taluk	Kunnathunadu	Kunnathunadu	Aluva	Kunnathunadu	Kanayannur	Kanayannur
Area (Sq.Kms)	25.65	21.91	15.98	19.64	20.79	12.35
Population	18533	20954	29948	28591	11973	34995
Males	9288	10550	15110	14591	12170	17487
Females	9245	10434	14838	14000	24143	17508
Density	723	940	1874	1156	1161	2834
Sex Ratio	995	989	982	959	1016	1001
No of Wards	9	10	10	10	10	12
No of Households	3873	4376	5655	5351	4669	6769
Literacy Rate	91.38	91.99	85.79	88.26	94.22	95.09
Male	94.89	95.79	90.89	93.15	97.43	98.09
Female	87.92	88.11	80.63	83.22	91.08	92.11
WPR	39.09	36.76	32.85	30.51	30.55	29.24
MWPR	55.88	54.13	50.75	49.58	47.57	50.16
FWPR	22.20	19.18	14.62	10.63	13.86	8.14

Source-Panchayath level statistics (DES 1995)

6.5 A Comparative Profile of Sample Households

From the six sample villages of the three blocks 450 households were selected for detailed enquiry. The social, familial, demographic, educational and economic background of the households, from which women workers emerge, will definitely have an impact on the nature and terms of the work they undertake. So in this section a brief description of these basic characteristics of the sample households is given in order to observe their bearing on the employment pattern of women workers.

6.6 Social Profile

Modern values exert a strong influence on the society of Kerala and this is true of Ernakulam district and the sample villages. Even though there is not much of social discrimination on the basis of caste and religion these factors still influence the female work participation in the state and the district. This is evident from the primary survey conducted for the study in those households where at least one woman has worked at any time in her life span. Table 6.3 shows the distribution of the sample households by religion.

In all the villages studied, Hindu households predominantly got selected as samples. It can be seen that of the total households 62.9 per cent are Hindus, 29.8 per cent Christians and 7.3 per cent Muslims. Only in the villages of Vazhakulam block Muslim households can be said to have got a fairly good representation. Twentyfour per cent of the households in this block are Muslim. From the other two blocks very few Muslim households got selected and more than one fourth of the households in them are Christian.

Table 6.3

Percentage of Sample Households by Religion

Villages	Christian	Hindu	Muslim	Total
Aikkaranadu	42.67	57.33	0.00	100.00
Thiruvaniyur	48.00	50.67	1.33	100.00
Vadavukode Block	45.33	54.00	0.67	100.00
Edathala	25.33	61.33	13.33	100.00
Vazhakulam	12.00	64.00	24.00	100.00
Vazhakulam Block	18.67	62.67	18.67	100.00
Kumbalam	22.67	76.00	1.33	100.00
Maradu	28.00	68.00	4.00	100.00
Vyttila Block	25.33	72.00	2.67	100.00
Total	29.78	62.89	7.33	100.00

Source: Survey data

When we look into the caste composition of households in table 6.4 it can be seen that 21.8 per cent of them are SC/ST households and just around half of them (49.3 per cent) belong to other backward communities. Only 29 per cent come under the general category. It is in the Vadavukode block that more of the general category households got included in the sample. In the villages of Vazhakulam and Vyttila it is the other backward community households that have preponderance over the other classifications.

Table 6.4

Percentage of Sample Households by Caste

Villages\Blocks	SC	OBC	Others	Total
Aikkaranadu	36.00	24.00	40.00	100.00
Thiruvaniyur	20.00	38.67	41.33	100.00
Vadavukode Block	28.00	31.33	40.67	100.00
Edathala	17.33	54.67	28.00	100.00
Vazhakulam	26.67	61.33	12.00	100.00
Vazhakulam Block	22.00	58.00	20.00	100.00
Kumbalam	8.00	78.67	13.33	100.00
Maradu	22.67	38.67	38.67	100.00
Vyttila Block	15.33	58.67	26.00	100.00
TOTAL	21.78	49.33	28.89	100.00

Source: Survey data

Traditionally a considerable proportion of rural women workers in Kerala belonged to the Hindu backward community. More recently women of Christian and even forward caste Hindu households are entering the labour force. Still in our sample there is clear evidence that the women who work for a livelihood mainly belong to the backward caste and community households. Thus evidences from survey data indicate that in all the six villages, religion and caste are determinants of women's paid work participation. The dominance of Hindu other backward community households constituting around 34 per cent in the sample clearly points to such a conclusion. (Survey data).

Next we examine the sector wise distribution of the workers by their caste status. This will enable us to know if there is any sectoral preference for workers of a particular caste. Table 6.5 shows that 52 per cent of the

SC|ST and 36 per cent of the other backward community women workers are employed in the primary sector. Despite the governmental measures of job reservation to provide them better opportunities, workers of the backward caste in our sample are still found to be employed primarily in the agricultural sector. The corresponding figures for male workers are 39.6 and 27.96 respectively.

Table 6.5

Caste status of Workers by Sector of Employment

Sector/ Caste	SC/ST		OBC		GENERAL		TOTAL	
	M	F	M	F	M	F	M	F
Primary	39.56	52.04	27.96	36.41	30.26	34.12	31.44	39.38
Secondary	39.56	34.69	40.86	29.61	27.63	27.06	37.68	30.30
Tertiary	20.88	13.27	31.18	33.98	42.11	38.82	30.88	29.82
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Survey data

Though the general category workers have diversified to the non-agricultural sectors 34 per cent women and 30 per cent of men among these workers are also found to be employed in the agricultural sector. This is because of the radical land reform measures implemented in the state, which have brought about some changes in the employment structure. More and more workers from the forward community also have joined the primary sector employment owing to the segmentation and fragmentation of landholdings and shortage of agricultural workers in recent times.

When a gender wise comparison is made, it is seen that in the sample households women workers outnumber the male workers in all caste categories. At the same time, in the case of secondary and tertiary sector employment this dominance is not seen except in the case of the other backward community in tertiary sector.

6.7 Familial Profile

Women work participation in general is said to be influenced by the nature and size of the family. If the family size is large and if there are elder members to look after children, women increasingly participate in economic activities both due to the economic need and due to the reduced burden of childcare. The scope of diversifying to other sectors also depends on the familial set-up of the workers.

The working women in the sample came mostly from nuclear families. Actually more than 70 per cent of all the households in the sample are of that nature. Even among the joint families identified in the survey around 62 per cent are transitional joint and only 11 per cent comes from a strictly joint familial set up. The transitional joint households have unmarried brothers or sons who will leave after their marriage either to form a nuclear household or become a part of another joint household. In the present sample, Vadavukode block is found to have more proportion of nuclear families, whereas Vyttilla has more joint families. The households in the nature of transitional joint are more in the villages Aikkaranadu and Vazhakulam than compared to the other villages under study. Table 6.6 shows the nature of the family of sample households

Table 6.6

Percentage of Sample Households by Nature of Family

Village\Block	Joint	Transitional joint	Nuclear	Total
Aikkaranadu	12.00	26.67	61.33	100.00
Thiruvaniyur	6.67	8.00	85.33	100.00
Vadavukode Block	9.33	17.33	73.33	100.00
Edathala	10.67	16.00	73.33	100.00
Vazhakulam	4.00	32.00	64.00	100.00
Vazhakulam Block	7.33	24.00	68.67	100.00
Kumbalam	24.00	16.00	60.00	100.00
Maradu	6.67	8.00	85.33	100.00
Vyttila Block	15.33	12.00	72.67	100.00
TOTAL	10.67	17.78	71.56	100.00

Source: Survey data

The average size of the sample household in all villages is lower due to the preponderance of nuclear families in the sample. The average household size in the sample households is 4.51 and the number of working members per household comes to 2.59. Hence the dependency ratio defined as the ratio of non-working members to working members per household is estimated to be 0.74. Table 6.7 presents the average household size, number of working members per household and the dependency ratio of the sample households in the sample villages.

Table 6.7

Household Size and Dependency Ratio

Village/Block	House hold size	No of working persons/ household	Dependency ratio
Aikkaranadu	4.89	2.88	0.70
Thiruvaniyur	4.28	2.63	0.63
Vadavukode Block	4.59	2.75	0.67
Edathala	4.53	2.45	0.85
Vazhakulam	4.85	2.49	0.95
Vazhakulam Block	4.69	2.47	0.90
Kumbalam	4.51	2.69	0.67
Maradu	4.01	2.40	0.67
Vyttila Block	4.26	2.55	0.67
TOTAL	4.51	2.59	0.74

Source: Survey data

Of the villages Aikkaranadu has slightly more members per household i.e. 4.89 and naturally it has more working members per household i.e. 2.88, so that the dependency ratio comes to 0.70. The households in Maradu with a lower family size of 4.01 also have a lower dependency ratio of 0.67. But in Vazhakulam the ratio is marginally high i.e. 0.95 not because of the small family size, but because of the lower number of working members per household i.e.2.49. Thus notwithstanding the family size the sample households have quite reasonable labour participation as revealed by the low dependency ratio.

6.8 Demographic Profile

The population in the sample households is estimated to be 2031, of which 949 are males and 1082 females with a fairly good sex ratio of 114 females for 100 males. The sex ratio is relatively lower at 107 in Aikkaranadu, whereas it is 122 and 118 in Kumbalam and Thiruvaniyur respectively. The basic demographic details of the sample households are shown in Table 6.8.

The Child-Women Ratio (CWR) is more or less similar in all the villages, which varies between 0.13 to 0.27 in these villages. Both the sex ratio and the CWR influences women work participation rate. The lower the sex ratio and the higher the CWR there may be hindrances for women entering paid work. But in the sample households these ratios are found to be favourable and do not in any way reduce the female labour supply. Again quite a few female-headed households were found in our sample. In the sample households of Vadavukode and Vyttila blocks around 15 per cent of the households were female headed and in the Vazhakulam block the percentage was lower at 9 per cent.

Table 6.8

Demographic details of Sample Households

Villages\ Blocks	Persons	Male	Female	Sex ratio	BSPOP	Women 15-59	FHHDS (%)	CWR
Aikkaranadu	367	177	190	107	36	132	16	0.27
Thiruvaniyur	321	147	174	118	16	128	13	0.13
Vadavukode Block	688	324	364	112	52	260	15	0.20
Edathala	340	158	182	115	29	120	15	0.24
Vazhakulam	364	174	190	109	37	133	9	0.28
Vazhakulam Block	704	332	372	112	66	253	12	0.26
Kumbalam	338	152	186	122	29	120	20	0.24
Maradu	301	141	160	113	22	113	9	0.19
Vyttila Block	639	293	346	118	51	233	15	0.22
TOTAL	2031	949	1082	114	169	746	14	0.23

BSPOP- Below Six Population; FHHDS Female-Headed Households; CWR-Child Women Ratio

Source: Survey data

A significant demographic variable that captures the nature and extent of work participation is the age group of the working population. So in table 6.9 the age specific work participation in the selected households of the three blocks is provided, as percentage of the corresponding population. From the table it is revealed that 72 to 78 per cent of males and 64 to 80 per cent of females above the age of 15 participate in some economic activities or other. The prime age group in which women are employed is 35-44 as ninety eight per cent of the females in this age group work for a living. It is to be noted that it is in this age group that the participation of females is higher than that of males in all the villages except Edathala and Maradu. So it can be presumed that women re enter the labour market when their children reach the school-going age. The mid-day meal system provided by the state government to the children of poor families is a relief to many of the women workers in our sample from household chores even though they are from nuclear families.

The prime age group for males in general also lies between the range 35-44 as 96 per cent of the male population in this age group are employed. However in the villages of Vazhakulam and Maradu the age group of 25-34 is found to be their prime age group. When we compare the extreme age groups it can be seen that except in Vadavukode the older generation is spared from work and the family responsibility is entrusted to the younger generations in the case of female workers. For male workers the case is exactly the opposite. But for the Vyttila block in all blocks young men are spared from taking up jobs.

Table 6.9

Workers as Percentage of Total Population in Different Age Groups

Village\Block	15-24	25-34	35-44	45-54	Above 55	Total
			Male			
Aikkaranadu	38.46	91.89	96.43	100.00	45.45	76.12
Thiruvaniyur	37.93	91.67	100.00	90.91	50.00	73.28
Vadavukode Block	38.18	91.80	98.04	95.35	47.50	74.80
Edathala	29.41	91.67	96.88	90.00	53.85	71.54
Vazhakulam	52.94	100.00	90.91	90.48	54.55	78.33
Vazhakulam Block	41.18	95.56	93.85	90.24	54.17	74.90
Kumbalam	47.62	85.71	96.43	95.65	35.29	75.45
Maradu	39.29	96.43	95.65	95.65	43.75	75.42
Vyttila Block	42.86	91.84	96.08	95.65	39.39	75.44
TOTAL	40.70	92.90	95.81	93.85	46.39	75.03
			Female			
Aikkaranadu	45.00	81.82	100.00	100.00	48.48	70.97
Thiruvaniyur	44.44	93.55	100.00	90.91	50.00	76.22
Vadavukode Block	44.74	87.50	100.00	95.83	49.06	73.49
Edathala	51.61	93.94	96.30	79.17	17.65	71.97
Vazhakulam	27.27	75.00	100.00	90.00	26.67	63.45
Vazhakulam Block	37.33	85.25	98.18	85.19	21.88	67.51
Kumbalam	46.15	73.91	97.14	95.45	59.09	75.78
Maradu	72.22	96.55	92.31	95.83	44.44	79.58
Vyttila Block	61.29	86.54	95.08	95.65	51.02	77.78
TOTAL	46.95	86.44	97.69	91.89	43.28	72.90

Source: Survey data

In order to know the sectoral preference of the workers in different age groups we refer to table 6.10. There it can be seen that more than half of the male and female workers upto the age of 55 work in the non-agricultural sector. The percentage is as high as 94 and 81 respectively for males and females in the lowest age group of 15-24. Thereafter there is a continuous decline in the case of male workers in the succeeding age groups in this sector. Moreover in the agricultural sector in all the age groups female participation is greater than the male participation. In the non-agricultural sector such a phenomenon is observed only in the tertiary sector between the age groups 25-34 and 35-44. The reduced participation of the workers in non-agriculture after the age of 55 indicates the retirement of these workers either willingly or unwillingly at this age.

Table 6.10

Sectoral Distribution of Workers by Age Group

Age Group	Primary		Secondary		Tertiary		Total Non-Agriculture		Total	
	M	F	M	F	M	F	M	F	M	F
15-24	5.71	19.00	54.29	45.00	40.00	36.00	94.29	81.00	100	100
25-34	15.97	24.18	47.92	39.22	36.11	36.60	84.03	75.82	100	100
35-44	27.22	30.81	37.34	31.40	35.44	37.79	72.78	69.19	100	100
45-55	37.70	46.67	27.87	22.22	34.43	31.11	62.30	53.33	100	100
Above 55	64.15	68.33	13.21	15.00	22.64	16.67	35.85	31.67	100	100
Total	27.42	34.35	37.84	31.94	34.73	33.71	72.58	65.65	100	100

Source: Survey data

6.9 Educational Profile

Education enhances the status of the population and changes the attitude of workers towards the nature and conditions of the work undertaken by them. It makes them more aware of the different employment opportunities that exist outside agriculture and also imparts to them capabilities and confidence in taking up such jobs. Kerala is a state that has fared very well in the matter of literacy and has also won international acclaim for the educational efforts of the state. The state has successfully universalised primary education and the social welfare schemes like mid-day meals and the occasional free rations to poor students have reduced the dropout rates considerably. The Ernakulam district chosen for study has also achieved the distinction of hundred per cent literacy in the year 1992. Still our primary survey registered 1.25 per cent of the male and 12.12 per cent of the female population above six years as illiterate. The educational status of the population in the sample households is given in table 6.11(a) and 6.11(b).

The illiteracy rates are comparatively higher in Aikkaranadu panchayath and lower in Maradu panchayath. In Aikkaranadu these rates are 8.75 and 20.47 for males and females respectively. In Maradu only 2.34 per cent of males and 2.64 per cent of females are illiterate. Again it is in Maradu panchayath that we see larger number of graduates and postgraduates among both the male and the female population. More than one fourth of the sample population have more than secondary level education in all the panchayaths. Thiruvaniyur panchayath has gained some ground here as 60 per cent of males and 56 per cent of females are in this category. On the whole it can be concluded that in the sample households of all the six villages more than 70 to 75 per cent of the population have received education only upto the school level.

Table 6.11(a)

Educational Status of the Population above the Age of Six (Males)

Village/Block	Illiterate	Literate	Primary	Middle	High School	SSLC	PDC	Graduate	PG	Total
Aikkaranadu	8.75	9.38	20.00	20.00	13.13	13.75	8.13	5.00	1.88	100.00
Thiruvaniyur	7.52	1.50	15.04	15.79	24.81	18.80	11.28	3.01	2.26	100.00
Vadavukode Block	8.19	5.80	17.75	18.09	18.43	16.04	9.56	4.10	2.05	100.00
Edathala	5.59	3.50	14.69	26.57	30.07	7.69	6.29	5.59	0.00	100.00
Vazhakulam	6.67	17.33	24.00	26.67	12.67	6.67	2.67	3.33	0.00	100.00
Vazhakulam Block	6.14	10.58	19.45	26.62	21.16	7.17	4.44	4.44	0.00	100.00
Kumbalam	3.68	9.56	15.44	16.18	22.06	17.65	7.35	6.62	1.47	100.00
Maradu	2.34	7.03	17.19	17.19	23.44	14.84	6.25	7.81	3.91	100.00
Vyttila Block	3.03	8.33	16.29	16.67	22.73	16.29	6.82	7.20	2.65	100.00

Table 6.11(b)

Educational Status of the Population above the Age of Six (Females)

Village/Block	Illiterate	Literate	Primary	Middle	High School	SSLC	PDC	Graduate	PG	Total
Aikkaranadu	20.47	7.60	14.04	12.87	15.20	11.11	10.53	5.85	2.34	100.00
Thiruvaniyur	11.18	7.65	12.94	12.35	17.06	17.65	11.76	5.29	4.12	100.00
Vadavukode Block	15.84	7.62	13.49	12.61	16.13	14.37	11.14	5.57	3.23	100.00
Edathala	12.50	4.76	17.26	23.81	20.24	11.31	5.36	4.76	0.00	100.00
Vazhakulam	17.24	6.32	22.41	22.41	15.52	7.47	5.75	2.30	0.57	100.00
Vazhakulam Block	14.91	5.56	19.88	23.10	17.84	9.36	5.56	3.51	0.29	100.00
Kumbalam	7.51	11.56	15.61	16.76	27.75	9.83	5.20	5.78	0.00	100.00
Maradu	2.65	8.61	19.21	15.89	24.50	10.60	4.64	7.95	5.96	100.00
Vyttila Block	5.25	10.19	17.28	16.36	26.23	10.19	4.94	6.79	2.78	100.00
TOTAL	12.12	7.75	16.88	17.38	19.96	11.32	7.25	5.26	2.09	100.00

Source: Survey data

The sectoral composition of workers at different educational levels is given in Table 6.12. It is only natural that the illiterate workers concentrate more in the primary sector. In our sample also 70 per cent of male workers and 74 per cent of the female workers of this category are employed in the primary sector. As the level of education rises the percentage of working population in this sector from each educational category more or less declines. At the same time in the secondary sector the proportion of workers shows an increasing trend as the educational level goes upto SSLC for males and females. Thereafter it declines indicating that increased years of schooling make the workers aspire for white collar jobs even of casual nature in the tertiary sector. A glance at the educational status of the workers in the tertiary sector of the sample also confirms this, as there is a steady increase in the proportion of workers in this sector in the succeedingly higher educational categories.

Table 6.12

Sectoral Distribution of Workers by Education

Education level	Primary		Secondary		Tertiary		Total Non agriculture		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Illiterate	70.00	74.00	20.00	20.00	10.00	6.00	30.00	26.00	100.00	100.00
Literate	5 7.89	58.54	21.05	24.39	21.05	17.07	42.11	41.46	100.00	100.00
Primary	42.42	49.66	37.12	33.56	20.45	16.78	57.58	50.34	100.00	100.00
Middle	21.03	28.24	43.08	35.88	35.90	35.88	78.97	71.76	100.00	100.00
High school	14.49	21.50	53.62	42.06	31.88	36.45	85.51	78.50	100.00	100.00
SSLC	0.00	5.36	35.56	28.57	64.44	66.07	100.00	94.64	100.00	100.00
Pre-degree	0.00	12.50	31.58	12.50	68.42	75.00	100.00	87.50	100.00	100.00
Graduate	5.26	5.00	10.53	15.00	84.21	80.00	94.74	95.00	100.00	100.00
PG	0.00	0.00	25.00	0.00	75.00	100.00	100.00	100.00	100.00	100.00
Total	26.62	34.35	38.26	31.94	35.12	33.71	73.38	65.65	100.00	100.00

Source: Survey data

6.10 Employment Profile

The working population of the sample households comes to 1167 with 547 male workers and 620 female workers. Though we aimed at getting at least 2 per cent of the women workers from the villages in total we were able to capture more through the primary survey. The total number of female workers in the villages and the percentages captured by our primary survey is given in table 6.13. From the table 6.13 it is clear that the percentages of female workers in the sample villages range from 5 to 9 per cent of the female workers in the villages studied.

Table 6.13

Percentage of the Sample Population to Total Population

Villages\Blocks	No of female workers in the village	No of workers captured in the primary survey	Percentage of sample population to the total
Aikkaranadu	1853	109	6
Thiruvaniyur	1635	109	7
Vadavukode Block	10834	218	2
Edathala	1864	96	5
Vazhakulam	1183	93	8
Vazhakulam Block	10481	189	2
Kumbalam	1210	114	9
Maradu	1409	99	7
Vyttila Block	2619	213	8
TOTAL	23934	620	3

Source: census 1991 and the Survey data

The work participation in the sample villages is shown in table 6.14.The male and female work participation rates are 57.64 per cent

Table 6.14

Work Participation Rates in the Sample Households

Villages\Blocks	Workers			Non workers			Work participation rates		
	M	F	P	M	F	P	MWPR	FWPR	WPR
Aikkaranadu	107	109	216	70	81	151	60.45	57.37	58.86
Thiruvaniyur	88	109	197	59	65	124	59.86	62.64	61.37
Vadavukode Block	195	218	413	129	146	275	60.19	59.89	60.03
Edathala	88	96	184	70	86	156	55.70	52.75	54.12
Vazhakulam	94	93	187	80	97	177	54.02	48.95	51.37
Vazhakulam Block	182	189	371	150	183	333	54.82	50.81	52.70
Kumbalam	89	114	203	63	72	135	58.55	61.29	60.06
Maradu	81	99	180	60	61	121	57.45	61.88	59.80
Vyttila Block	170	213	383	123	133	256	58.02	61.56	59.94
TOTAL	547	620	1167	402	462	864	57.64	57.30	57.46

Source: Survey data

and 57.30 per cent respectively. Even when statistically tested there is no significant difference in the proportion of workers by gender in any of the sample villages. In fact women workers have slightly outnumbered the male workers in all the villages except Vazhakulam. There the work participation rates are generally low in the sample households when compared to the other villages and this difference is larger in the case of female workers.

6.11 Economic Profile

Conventionally the ownership of land and the nature and level of income enable us to assess the economic status of the households. Both these aspects are also considered to be vital in determining the participation and diversification of women labour. The larger the individual operational holdings and the higher the income, there will be a negative impact on women employment, especially in the rural areas. Likewise the prospect of income from sources other than wages is also a crucial element in the supply of women labour and its diversification.

A glance at table 6.15 shows that the villages of Vadavukode block have an edge over the other villages in terms of the size of landholdings. Nearly half of the sample households in this block have holdings of 15 cents and above. The situation is just the reverse in Vazhakulam and Vyttila, where more than two-third of the households has holdings below 15 cents. No landless households were included from the Vyttila block, whereas in Vazhakulam 4 per cent were reported so. In summary it can be stated that in all the villages households with 5 to 15 cents constitute the majority.

Table 6.15

Size of Landholdings of the Sample Households

Village\Block	Land less	Below 5	5 -15	15- 25	25-50	50-100	Above 100	Total
Aikkaranadu	1.33	8.00	38.67	17.33	21.33	10.67	2.67	100.00
Thiruvaniyur	1.33	8.00	48.00	8.00	16.00	13.33	5.33	100.00
Vadavukode Block	1.33	8.00	43.33	12.67	18.67	12.00	4.00	100.00
Edathala	0.00	29.33	42.67	12.00	10.67	5.33	0.00	100.00
Vazhakulam	8.00	25.33	37.33	14.67	10.67	4.00	0.00	100.00
Vazhakulam Block	4.00	27.33	40.00	13.33	10.67	4.67	0.00	100.00
Kumbalam	0.00	44.00	38.67	5.33	8.00	4.00	0.00	100.00
Maradu	0.00	40.00	48.00	2.67	4.00	2.67	2.67	100.00
Vyttila Block	0.00	42.00	43.33	4.00	6.00	3.33	1.33	100.00
TOTAL	1.78	25.78	42.22	10.00	11.78	6.67	1.78	100.00

Source: Survey data

In table 6.16 the asset profile of the sample households is given. The average size of landholdings in these households comes to be 20.13 and the annual income per household is Rs 60,306. Consequently the average annual per capita income comes to be around Rs.2227. About 85 to 95 per cent of these incomes are earned from salaries and wages. The households are also revealed to be highly indebted as the liability per household comes to be around Rs 25,299.

Among the villages again those in Vadavukode block are in the forefront in terms of the average size of landholdings. With 35.83 cents per household and a total annual income of Rs. 68532, Thiruvaniyur panchayath of this block is found to be in a better position than all other villages. Average liability of households is also lower in this block. However, its percapita income is lower than Maradu panchayath of the Vyttila, which has only 13.75 cents of land per household.

Inspite of a high per capita monthly income, the households in the Vyttila block are the most indebted ones. The per capita income and average liability of the households in Maradu, for instance are Rs.1367 and Rs. 20520 respectively. The per capita income is among the lowest in the villages of Vazhakulam block.

Table 6.16

Asset Profile of Households

Village\ Block	Average land held	Average annual income	Average monthly income	Annual percapita income	Monthly percapita income	Average liability	% dependence on wage income
Aikkaranadu	27.05	60796	4983	12424	1018	15200	92
Thiruvaniyur	35.83	68532	5711	16012	1334	9946	85
Vadavukode Block	31.41	64664	5389	7049	587	20173	88
Edathala	15.69	51602	4300	11383	949	18390	94
Vazhakulam	14.55	55406	4617	11416	951	14476	95
Vazhakulam Block	15.12	53504	4636	5700	494	23671	95
Kumbalam	14.09	59650	4917	13236	1091	23064	95
Maradu	13.75	65849	5487	16408	1367	20520	90
Vyttila Block	13.92	62750	5052	7365	593	32052	92
TOTAL	20.13	60306	5025	2227	186	25299	92

Source: Survey data

On the whole it is observed that the households with women in paid employment enjoy fairly good financial security in all the villages. This is only because the additional income that the women contribute, enhance their monthly per capita and annual per capita income.

A brief account of the sample villages of Ernakulam district and the households in these villages was the basic objective of this chapter. So we have unfolded a comprehensive as well as a comparative picture of the villages and the households which can be summarised as follows: Though there exist certain similarities among the villages due to the topographical and climatic advantages of being in the same district, the villages are diverse in nature.

First, there are socio-cultural differences among the villages in the sense that three different social groups dominate their population. To illustrate, Vadavukode has basically a Christian culture as the village population mostly belongs to that religion. In Vyttila, Hindus, especially of the backward community, constitute the major social section, whereas Muslims command majority in Vazhakulam (1991 Census). Still when it came to households with women workers in all the three villages, Hindu backward community households got included from all the villages. More than three- fourth of the households that got included in the survey were either SC\ST or OBC households. Only 29 per cent belonged to the general category. Thus the social framework of the households indicates that the women workers came from the lower cadre of the society. As for the village-wise break-up there are more of the general category as well as SC\ST households in Vadavukode. But in both Vazhakulam and Vyttila the OBC households dominate the sample.

The familial set up has revealed that the women workers came from nuclear families. There is much similarity among the villages in that 60 to

70 per cent of all the households in them are nuclear in nature. Even when the household size is small and manageable they are compelled to work to make both ends meet. As a consequence the dependency ratio is low and indicates reasonably good participation rates of both men and women. Only in Vazhakulam, the dependency ratio is slightly high but that is due more to the relatively large size of the family.

Demographically the Sex ratio and Child women ratio were found favorable to women work participation in all the villages. In all the age groups the representation of women workers was significant and it is empirically validated from the sample that they increasingly take up employment outside home between the age of 25 and 55. There is not much of dissimilarity in this aspect also among the villages.

The educational background of the households has indicated an encouraging picture with more than 50 per cent of them having an average educational attainment of high school or SSLC level schooling. Nearly 25 per cent of the households have gone even beyond that. At the disaggregated level of the district it can be seen that the households in Vazhakulam have a disadvantage in this sphere in comparison with other villages. Similarly there seemed to be a higher proportion of illiterate population in Aikkaranadu. Barring these exceptions, on the whole, the literacy rates in the sample households were quite satisfactory.

The working population of the households brought to light the fact that in terms of numbers there are more working women than working men in the sample households. However, when it comes to work participation rates the FWPR is found lower than MWPR in all villages and in Vazhakulam the difference is rather high.

Economically, Thiruvaniyur panchayath is found to be in a better position than the other villages. All economic indicators of the households

covered by the study point to the increased status of these households mainly due to the contribution of the additional income provided by the women workers. It is with this background that in the next chapter we go for the detailed analysis of nature, casuses and consequences of the employment structure in these villages.

CHAPTER VII

DIVERSIFICATION IN EMPLOYMENT STRUCTURE AND STATUS OF RURAL WOMEN: A MICROANALYSIS

The principal objective of this chapter is the analysis of the process and pattern of diversification, its determinants and the status of rural women workers who have diversified to non-agricultural jobs in Ernakulam District. This is on the whole a meaningful exercise in the sense that it apprehends the dynamic behaviour of a particular social group that needs special attention when employment policies are formulated. The results of the primary data collected through a sample survey in six different villages of three different blocks in the district are examined with this end in view. Block and village level enquiries have more relevance today owing to the increased importance given to block and village panchayaths in the formulation and implementation of plan projects through the People's Plan Programme. Hence it is presumed that this analysis will be helpful from the policy point of view both in providing a better understanding of the prevailing scenario and in enriching the database that is crucially lacking for devising projects at these levels.

The chapter is designed in three sections: In the first section the process and pattern of rural non-agricultural activities undertaken by women in the sample villages are discussed to bring out the regional diversities and similarities involved.

In the second section an attempt is made to identify the factors that distinguish the diversified workers from other workers.

The employment status of these diversified workers is scrutinised in section three to assess the impact of the process of diversification on these workers.

7.1 Process and Pattern of Diversification

The process and pattern of diversification in this study is observed from three different angles. First, we have observed the shift in employment of the women workers from one sector to another. Second, the pattern of employment of the female new entrants is scrutinised separately to have an idea about the choice of the sector by these workers. Finally we have also considered the acts of diversification of those women who are pursuing more than one activity in different sectors for their livelihood. It is through a comprehensive analysis of these three observations that a conclusion is made on the process and pattern of diversification that is prevalent in the study area.

7.1.1 Sectoral Composition of Workers in the Sample Households

The employment structure existing as such is considered a very good macro level indicator of the pattern of employment diversification. In fact, most inferences on national and regional level diversification are made from these observations as we have seen in Chapter three. Our sample selection upto the village level is also based on such observations. The primary survey in the villages has yielded a sample of 1167 workers, of whom 547 are male and 620 female.

It is to be noted that the survey has captured more female workers than male workers mainly due to the peculiarity of the universe of our sample. It happens to be defined as households with at least one woman

working. Definitely we have captured more female workers, as there were female-headed households of around 10.5 per cent in the sample. However, to have a comparative picture of female workers with their male counterparts we have prepared gender wise cross tabulations wherever necessary.

In table 7.1, that gives the sectoral composition of all these workers together in the sample households in the villages, there is a clear indication of a diversified employment structure in existence. For instance, of the total workers only around 31.1 per cent are engaged in the agricultural sector and the remaining 68.9 per cent work in the non-agricultural sector. The sectoral distribution of the workers by gender also confirms this employment pattern - 72.6 per cent of the males and 65.7 per cent of the female workers being employed in non-agriculture.

Table 7.1

Sectoral Composition of Workers by Gender in the Sample Households

Sector/ Gender	Male		Female		Total	
	No.	%	No.	%	No.	%
Primary	150	27.42	211	34.03	363	31.11
Secondary	207	37.84	201	32.42	405	34.70
Tertiary	190	34.73	209	33.55	399	34.19
Total Non-Agriculture	397	72.58	407	65.65	804	68.89
Total	547	100.00	620	100.00	1167	100.00

Source: Survey data

Of the total male workers employed, the secondary sector absorbs 37.8 per cent, while the primary and tertiary sectors absorb 27.4 per cent

and 34.7 per cent each. In the case of female workers, the primary sector still dominates by employing a slightly higher percentage of workers than the other two sectors. The percentages come to be around 34 in the primary sector, 33.6 in the tertiary sector and 32.4 in the secondary sector.

Table 7.2 gives the block and village-wise break up of the sectoral composition of women workers, as they constitute our focus of enquiry. It is only in the villages of Vadavukode block, that female workers are found predominantly employed in the primary sector. While more than half of the workers in this block are engaged in this sector, in all other villages selected for study we find only less than one third of their workers in agriculture. It has already been noted in Chapter six that the average size of landholdings in Vadavukode block is much higher than that of the other two blocks. This fact, to some extent, explains the higher participation of workers in the villages of this block in the primary sector.

The secondary sector gets the upper hand in the villages of Vazhakulam block as 55 per cent of the workers in this block have found employment in this sector. On the other hand, in Vadavukode and Vyttila blocks the respective percentages are only 25.7 and 19.3. Since Vazhakulam block has a number of small and cottage industrial units, women workers have increased scope in the villages of this block in this particular sector.

The tertiary sector in Vyttila block, with 58.2 per cent of the women workers has a higher proportion of workers in this sector than the other two blocks, mainly due to the process of urbanisation and proximity to the city of Kochi. In comparison, Vadavukode and Vazhakulam blocks have only 22.0 and 19.1 per cent of their workers engaged in this sector.

Table 7.2

Sector of Activity of Female Workers in the Sample Villages

Village\Block\ Sector	Primary		Secondary		Tertiary		Total NA		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aikkaranadu	62	56.88	23	21.10	24	22.02	47	43.12	109	100
Thiruvaniyur	52	47.71	33	30.28	24	22.02	57	52.29	109	100
Vadavukode Block	114	52.29	56	25.69	48	22.02	104	47.71	218	100
Edathala	27	28.13	50	52.08	19	19.79	69	71.88	96	100
Vazhakulam	22	23.66	54	58.06	17	18.28	71	76.34	93	100
Vazhakulam Block	49	25.93	104	55.03	36	19.05	140	74.07	189	100
Kumbalam	31	27.19	27	23.68	56	49.12	83	72.81	114	100
Maradu	17	17.17	14	14.14	68	68.69	82	82.83	99	100
Vyttila Block	48	22.54	41	19.25	124	58.22	165	77.46	213	100
All Villages	211	34.03	201	32.42	208	33.55	409	65.97	620	100

Source: Survey data

In general, the workers of the villages have diversified more or less in equal proportions to the secondary and tertiary sectors. However, the pattern of employment structure and the nature of diversification are different in the three blocks. As is evident from the table, in Vazhakulam diversification is to the secondary sector and in Vyttila the women workers have found better opportunities in the tertiary sector. This sectoral diversity among the blocks is found valid even when tested statistically. All the 't' values point to significant differences in the proportion of women workers in different sectors of the blocks at 5 per cent level. In Vadavukode - the block that represents low female non-agricultural participation - the female workers have hardly diversified to other sectors.

In table 7.3 we have further disaggregated the sectoral composition of the women workers in the villages by their industrial categories. It can be seen that in the primary sector of Vadavukode block 12.3 per cent of women are cultivators and 80.7 per cent agricultural labourers. Seven per cent of the women workers are also engaged in the industrial category of livestock and fisheries. In fact, only in this block does the percentage of women cultivators reach a two-digit level. Since each household owns some plot of their own in the sample villages of this block, the women in general have increased entitlements. But this has not raised their reservation wages. In fact, the wages for female agricultural labour for 7 hours of work a day in the villages of this block is around Rs.57/-.

In the secondary sector of this block, the workers are found employed more in the household industrial sector followed by non-household manufacturing and construction, the percentages being 50, 30.4 and 16.1 respectively. Most of these women are employed as casual labourers in these sectors. Hence, in household manufacturing and non-

household manufacturing the workers on an average get Rs. 28/- and Rs. 46/- only, whereas the same for eight hours of work a day in construction is Rs. 78/-. When compared to the wages prevailing in the other blocks these are found to be very low. This is yet another reason why more workers of this block are employed in the primary sector. Nevertheless, it is due to the regularity of employment and some social welfare measures that women reported preference to the jobs of this type in the secondary sector. Only in the Thiruvaniyur panchayath of this block women are found employed in quarrying. The women working in granite quarries are paid well at around Rs. 110/- per day and they also get accident benefits in the event of any casualty.

In the tertiary sector just around 43.8 per cent are government employees and 39.6 per cent employees of private firms. Those who are employed in the government sector of this block are mostly teachers. Of those women employed in the private sector, the majority are paramedical staff. Around 12.5 per cent of women in the tertiary sector are also employed in trade related activities. The average monthly income in the tertiary sector is around Rs. 3148, which is definitely higher than those in the other two blocks.

In Vazhakulam only around 8.2 per cent of the workers in the primary sector are cultivators and 85.7 per cent agricultural labourers. The agricultural labourers in the villages of these blocks have a considerably high level of average wage i.e. Rs. 73/-. This is mainly due to the non-availability of workers in the primary sector. The discussions with the villagers and officials of the panchayath enabled us to arrive at some more plausible conclusions. Thus it can be due to the inhibitions of religion, increased remittances to the households from the Middle East and due to

the existence of an industrial cluster in and around the sample villages that labour shortage exists in the agricultural sector.

The prominent sector in Vazhakulam block is the secondary sector and here 58.3 per cent work in non-household manufacturing and 29.1 per cent in cottage industries. Around 12.6 per cent of the secondary sector workers are also engaged in construction. The existing wages in the villages of these block for various categories of employment are Rs.35 in the household industrial sector, Rs.56.9 in the manufacturing sector and Rs. 104 in construction. Among these workers the group that is exposed to all the uncertainties of employment is the household industrial workers mostly employed as cashewnut peelers. Their work is but seasonal and their wages depend on the amount of work done. Still it was reported that they get work for 10 months a year, either full-time or part- time.

For the more skilled works in the household industry sector, workers are brought from outside the district, mainly from Kollam. The migrant workers stay at the employer's premises. In the manufacturing sector also there are inmigrants from other districts, but for a different reason. The availability of cheap labour from Idukki district has prompted the employers to import labour on contract for the plywood factories in the village. These workers are provided accommodation in groups within the premises of the factory and are utilised for the drying, stacking and loading of plywood. Among the male workers there are many from other states mainly from Orissa and Tamil Nadu who are willing to work for lower wages. However, this preference for outsiders with low bargaining power being the peculiarity of this sector in these panchayaths alone, we have not attempted a more detailed enquiry.

Table 7.3

Industrial Composition of Female Workers by Village and Sector

Industry/Sector/ Villages/Blocks	AKD	TVR	VDD Block	EDT	VAZ	VAZ Block	KUM	MRD	VTA Block	TOT
Cultivators	9.68	15.38	12.28	14.81	0.00	8.16	0.00	17.65	6.25	9.95
Ag. Labourers	88.71	71.15	80.70	74.07	100.00	85.71	16.13	29.41	20.83	68.25
Fisheries	1.61	13.46	7.02	11.11	0.00	6.12	83.87	52.94	72.92	21.80
Primary Workers	100	100	100	100	100	100	100	100	100	100
Quarrying	0.00	6.06	3.57	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Household industry	47.83	51.52	50.00	10.00	47.17	29.13	85.19	0.00	56.10	40.50
Manufacturing	30.43	30.30	30.36	70.00	47.17	58.25	3.70	14.29	7.32	40.00
Construction	21.74	12.12	16.07	20.00	5.66	12.62	11.11	85.71	36.59	18.50
Secondary Workers	100	100	100	100	100	100	100	100	100	100
Trade and Comm.	4.17	20.83	12.50	5.26	11.11	8.11	28.57	33.82	31.45	22.97
Trans.& comm.	0.00	4.17	2.08	5.26	5.56	5.41	16.07	0.00	7.26	5.74
Govt service (GS)	41.67	45.83	43.75	63.16	55.56	59.46	19.64	20.59	20.16	32.54
Private firms(PF)	50.00	29.17	39.58	26.32	27.78	27.03	35.71	45.59	41.13	38.28
Other Services(GS+PF)	95.83	75.00	85.42	89.47	83.33	86.49	55.36	66.18	61.29	71.29
Tertiary Workers	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Survey data

In the tertiary sector of this block 59.5 per cent women are employed in government services mostly as teachers and clerks, while 8.1 per cent are revealed to be in trade and commercial services. Around 27.03 per cent of the women workers have found employment in private firms. The average monthly income in the tertiary sector comes to around Rs. 2944.

In Vyttila the major industrial category in the primary sector is fishery and 72.9 per cent of women are employed in this sector. Their work status ranges from self - employed women with their own fishing nets to fish vendors. A woman agricultural labourer in this village gets on an average Rs. 54/-. But there is not much of agricultural work available because of the conversion of paddy fields for infrastructural development, waterlogging and salination. Thus only 20.8 per cent of the workers are reported agricultural labourers. A good number of women are engaged in prawn peeling and this process is mostly done in groups in the homes of these women workers and sometimes in their neighbourhood.

In the sectoral composition, the share of secondary sector is very low. Still among those employed in the sector 56.1 per cent are in cottage industries, 36.6 per cent in construction and the rest 7.3 per cent in non-household manufacturing. The number of workdays available for a secondary worker during the month is very low since they get on an average 13 days of employment a month. However, the wages existing in this sector are comparatively higher in manufacturing and construction. An industrial worker gets around Rs.52 per day and a construction worker gets Rs.106. There are strong trade unions existing in this village in both the primary and the secondary sectors.

In the tertiary sector 41.1 percentage are employed in the private firms mostly in clerical categories and 31.5 per cent are engaged in different trades and commercial services as shop assistants, beauticians, screen printers, receptionists etc. Only 20.2 per cent of the workers in this block are employed in government services. The average monthly income in the tertiary sector is only Rs.2040, which is low, compared to those in the other two blocks.

On the whole, within the sectors, agricultural labourers constitute the majority in the primary sector, workers in household industry in the secondary sector and employees of the private firms and then government services in the tertiary sector. Thus it can be concluded that even though there are sectoral diversities in the rural employment structure of women among the villages, within the sectors not much difference is perceptible in their industrial pattern. Only exceptions in this regard are the secondary sector of Vazhakulam block and the primary and tertiary sectors of Vyttila block. In Vazhakulam non-household industries, rather than the household industries, employ more rural women workers in the secondary sector. Again in Vyttila, unlike the other two blocks there are more workers in the industrial category of fisheries in the primary sector, and more workers employed in private firms than in government service in the tertiary sector.

The diversification in employment to the non-agricultural sectors evident in these blocks could be due to the changes or shifts of the workers and their own preference for a particular sector. So we next analyse the sectoral shifts of the workers and the choice of the sector of employment made by the new entrants.

7.1.2 The Sectoral Shift among the Workers in the Sample Households

Table 7.4 shows the number and percentage of shifted workers in the sample villages by the sector from which they have shifted. When we examine the sectoral shift among the workers in the sample households of all the villages together, it is found that there are 352 workers who have shifted their sector of employment at least once in their career. Of them 138 are male and 214 female. These constitute about one-fourth of the male and one-third of the female workers in the sample. This gives us the impression that the female workers, rather than the male workers, are more prone to shift their sector of employment in the course of their career.

When statistically tested also, we have found significant difference in the proportion of female workers shifted, in comparison with the male workers. The level of significance is 1 per cent and the calculated 't' value 3.45.

Within the blocks the shift has occurred more sharply in Vazhakulam, where 30 per cent of male and 51 per cent of female workers are found to be shifted workers. The percentages of male and female shifted workers in Vadavukode are 16.9 and 22 per cent respectively. The corresponding figures in Vyttila are 29 and 33 per cent.

Table 7.4

Shift of Workers by Gender in the Sample Villages

Block	Total No. workers			No. of shifted workers			Percentage of shifted workers		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Aikkaranadu	107	109	216	18	21	39	16.82	19.27	18.06
Thiruvaniyur	88	109	197	15	27	42	17.05	24.77	21.32
Vadavukode Block	195	218	413	33	48	81	16.92	22.02	19.61
Edathala	88	96	184	21	43	64	23.86	44.79	34.78
Vazhakulam	94	93	187	34	53	87	36.17	56.99	46.52
Vazhakulam Block	182	189	371	55	96	151	30.22	50.79	40.70
Kumbalam	89	114	203	18	30	48	20.22	26.32	23.65
Maradu	81	99	180	32	40	72	39.51	40.40	40.00
Vyttila Block	170	213	383	50	70	120	29.41	32.86	31.33
Block total	547	620	1167	138	214	352	25.23	34.52	30.16

Source: Survey data

Both the villages in the Vazhakulam block and the Maradu village of Vyttila block have considerable proportions of shifted workers. Actually, among the villages more per cent of shifted female workers are from Vazhakulam and the highest proportion of male workers is from Maradu.

There are also workers who have shifted their sector more than once. But their proportion being very small, barely two percent of the total workers, we have not taken this factor into account for the analysis.

The nature of sectoral shift in the survey by gender is given in table 7.5. From among the three sectors, the workers have shifted mostly from the primary sector. While 70.3 per cent of the male and 65.9 per cent of the female shifted workers were originally employed in the primary sector, the workers who left the non-agricultural sectors in total were 29.7 per cent and 34.1 per cent respectively for males and females. Here, the male workers mainly shifted from the secondary sector, whereas the female workers shifted from the tertiary sector.

Table 7.5

Sectoral Shift of Workers in the Sample Households by Gender

Sector/ Gender	Male		Female		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Primary	97	70.29	141	65.89	238	67.61
Secondary	24	17.39	26	12.15	50	14.20
Tertiary	17	12.32	47	21.96	64	18.18
Total Non - Agriculture	41	29.71	73	34.11	114	32.39
Total	138	100.00	214	100.00	352	100.00

Source: Survey data

Though the shift of workers is basically away from the primary secto in all the villages, the nature and direction of the shift was different in eacl block. Table 7.6 shows the shifted and initial sector of employment of th female workers by block.

Table 7.6

Percentage of Shifted Women Workers by Sector and Block

Initial Sector	Block/Sector	Shifted Sector			
	Vadavukode	Primary	Secondary	Tertiary	Total
	Primary	0.00	35.42	29.17	64.58
	Secondary	8.33	0.00	4.17	12.50
	Tertiary	18.75	4.17	0.00	22.92
	Total	27.08	39.58	33.33	100.00
	Vazhakulam				
	Primary	0.00	67.71	5.21	72.92
	Secondary	8.33	0.00	2.08	10.42
	Tertiary	6.25	10.42	0.00	16.67
	Total	14.58	78.13	7.29	100.00
	Vyttila				
	Primary	0.00	20.00	37.14	57.14
	Secondary	4.29	0.00	10.00	14.29
	Tertiary	21.43	7.14	0.00	28.57
	Total	25.71	27.14	47.14	100.00
	All Blocks				
	Primary	0.00	44.86	21.03	65.89
	Secondary	7.01	0.00	5.14	12.15
	Tertiary	14.02	7.94	0.00	21.96
	Total	21.03	52.80	26.17	100.00

Source: Survey data

On the whole, of the shifted workers 52.8 per cent found employment in the secondary sector, 21 per cent in the primary and 26.2 per cent in the tertiary sector. Around fortyfive per cent of the shifted workers now in the secondary sector had primary sector jobs and 7.9 per cent had tertiary sector jobs before the shift. Similarly, of the shifted workers in the tertiary sector 21 per cent had employment in the primary sector and 5 per cent in the secondary sector. The workers who turned to the primary sector mostly belonged to the tertiary sector before their shift, their percentage being 14. Those who had secondary sector jobs before, come to seven per cent

Among the blocks, while the shift is more towards the secondary sector in Vazhakulam it is towards the tertiary sector in Vyttila. In Vadavukode both the secondary and the primary sectors have equally shared the shifted workers. To be brief, amidst the blocks the secondary sectors absorbed 78 per cent in Vazhakulam, 39.6 per cent in Vadavukode and 27 per cent in Vyttila. The respective shares absorbed by the tertiary sector are 7.3, 33.3 and 47.1 in these three blocks.

Even between the villages in the same block, variations were observed to exist, as to the nature and direction of the shift. So Village-wise disaggregations of the table 7.6 are given as 7.6 (a), 7.6 (b) and 7.6 (c) representing the three blocks Vadavukode, Vazhakulam and Vyttila respectively.

Between the villages of the Vadavukode block, in Aikkaranadu we see a shift of the primary workers mainly to the secondary sector. But in Thiruvaniyur, such workers shifted more to the tertiary sector. The percentages are 38.1 and 37 respectively. The workers from the secondary sector in Aikkaranadu shifted equally to primary and tertiary sectors. In Thiruvaniyur, on the other hand, they were entirely absorbed by the

primary sector. In both villages workers from the tertiary sector mainly turned towards the primary sector for employment.

Table 7.6(a)

Percentage of Shifted Women Workers by Sector in Vadavukode

Initial Sector	Block/Sector	Shifted Sector			
	Aikkaranadu	Primary	Secondary	Tertiary	Total
	Primary	0.00	38.10	19.05	57.14
	Secondary	9.52	0.00	9.52	19.05
	Tertiary	19.05	4.76	0.00	23.81
	Total	38.10	42.86	19.05	100.00
	Thiruvaniyur				
	Primary	0.00	33.33	37.04	70.37
	Secondary	7.41	0.00	0.00	7.41
	Tertiary	18.52	3.70	0.00	22.22
	Total	14.81	44.44	40.74	100.00
	Vadavukode				
	Primary	0.00	35.42	29.17	64.58
	Secondary	8.33	0.00	4.17	12.50
	Tertiary	18.75	4.17	0.00	22.92
	Total	27.08	39.58	33.33	100.00

Source: Survey data

Table 7.6 (b)

Percentage of Shifted Women Workers by Sector in Vazhakulam

Initial Sector	Block/Sector	Shifted Sector			
	Edathala	Primary	Secondary	Tertiary	Total
	Primary	0.00	62.79	4.65	67.44
	Secondary	16.28	0.00	4.65	20.93
	Tertiary	4.65	6.98	0.00	11.63
	Total	20.93	69.77	9.30	100.00
	Vazhakulam				
	Primary	0.00	71.70	5.66	77.36
	Secondary	1.89	0.00	0.00	1.89
	Tertiary	7.55	13.21	0.00	20.75
	Total	9.43	84.91	5.66	100.00
	Vazhakulam				
	Primary	0.00	67.71	5.21	72.92
	Secondary	8.33	0.00	2.08	10.42
	Tertiary	6.25	10.42	0.00	16.67
	Total	14.58	78.13	7.29	100.00

Source: Survey data

In both the villages of Vazhakulam, the primary sector workers turned to the secondary sector when they shifted, the percentages being 63 and 72 respectively in Edathala and Vazhakulam. However, the labour absorption of shifted workers in the tertiary sector hardly reaches 10 per cent in these villages. Likewise, except for the workers who shifted from the secondary to primary sector in Edathala village and tertiary to secondary sector in Vazhakulam village, all other intersectoral shifts in these villages are of a lesser magnitude.

Table 7.6 (c)

Percentage of Shifted Women Workers by Sector in Vyttila

	Block/Sector	Shifted Sector			
Initial Sector	Kumbalam	Primary	Secondary	Tertiary	Total
	Primary	0.00	26.67	23.33	50.00
	Secondary	3.33	0.00	20.00	23.33
	Tertiary	26.67	0.00	0.00	26.67
	Total	30.00	26.67	43.33	100.00
	Maradu				
	Primary	0.00	15.00	47.50	62.50
	Secondary	5.00	0.00	2.50	7.50
	Tertiary	17.50	12.50	0.00	30.00
	Total	22.50	27.50	50.00	100.00
	Vyttila				
	Primary	0.00	20.00	37.14	57.14
	Secondary	4.29	0.00	10.00	14.29
	Tertiary	21.43	7.14	0.00	28.57
	Total	25.71	27.14	47.14	100.00

Source: Survey data

In the Vyttila block primary sector workers shifted more to the tertiary sectors. In Kumbalam their proportion comes to be around 23 per cent, whereas in Maradu it is 47.5 per cent. The tertiary sector workers, on the other hand, shifted mainly to the primary sector. The secondary sector in these villages has little prominence and thereby the shifts from this sector are also of little consequence.

Regarding the reasons for the shift of workers, first hand formation from the workers was collected and it is given in table 7.7. In all the three

sectors more than one third of the shifted workers stated the main reason as the low remuneration from the previous jobs. Familial reasons are second in importance in making decisions to shift, and except for the tertiary sector workers, health-related reasons come third in all other sectors. In the tertiary sector the next important reason then becomes the closure of the work place.

Table 7.7

Reasons for Shifting the Sector of Employment by the Female Workers

Reasons	Primary	Secon-dary	Tertiary	Total NA	Total
Low remuneration from last job	36.88	38.46	38.30	38.36	50.47
Place of work far away from Home	2.13	7.69	8.51	8.22	7.01
Health related	14.18	19.23	10.64	13.70	57.48
Family related issues	24.82	23.08	27.66	26.03	34.11
Work place closed down	15.60	7.69	12.77	10.96	17.76
Others	6.38	3.85	2.13	2.74	51.87
Total	100.00	100.00	100.00	100.00	100.00

Source: Survey data

The empirical evidences from the survey, however, suggest that the wages are in no way linked with the sectoral shift. For instance, as cited earlier, the workers in the primary sector of Vadavukode and Vazhakulam receive higher wages than their counterparts in the secondary sector to which more workers have shifted. Similarly, in Vyttila there has not been much of a shift to the secondary sector, where the wages are found reasonably higher. In the diversification model also which determines the

factors of diversification, wages are not revealed to be significant. Instead it is the regularity of work and social status associated with non-agricultural jobs that lie behind the shift in the sector of employment by the female workers in the sample villages.

7.1.3 Sectoral Choice of the New Entrants

The choice of the newly employed workers in each sector is yet another factor that decides the employment structure. To analyse the choice, in this study, we have taken only those workers who have less than five years of experience in the particular sector in which they are presently working. The sectoral composition of the new entrants which reveals their choice as outlined in table 7.8 also confirms the diversification process.

In all the sectors together there are 375 new workers who entered the sector for the first time in the past five years. Of them 137 are males and 238 females. Of the newly employed males, 93.4 per cent work in the non-agricultural sector. Among the female workers, new entrants to the non-agricultural sector constitute 87.4 per cent of their total and only 12.6 per cent got employed in the primary sector anew. In the secondary and tertiary sectors the share of absorption is around 42.3 and 51.1 per cent for males and 47.5 and 39.9 per cent for females.

Table 7.8

Sectoral Composition of the New Entrants by Gender

Gender\ Sector	Male		Female		Total	
	No.	%	No.	%	No.	%
Primary	9	6.57	30	12.61	39	10.4
Secondary	58	42.34	113	47.48	171	45.6
Tertiary	70	51.09	95	39.92	165	44
Total NA	128	93.43	208	87.39	336	89.6
Total	137	100	238	100	375	100

Source: Survey data

With regard to the proportion of new entrants to the non-agricultural sectors, there is statistically no significant difference between male and female workers (t value 0.22). The new female entrants are on an equal footing with the new male entrants in choosing and getting employed in the non-agricultural sector. However, in this context also, there are significant differences among the blocks in the case of women workers. In table 7.9 the sectoral composition of new female entrants in the three blocks is given.

In Vadavukode and Vazhakulam the secondary sector had a higher proportion of new entrants than the tertiary sector. The percentages are 47.5 and 68.3 respectively in these two blocks. On the otherhand, in Vyttila block, the tertiary sector attracted a higher proportion of the new entrants with around 81 per cent choosing that sector for their livelihood.

Table 7.9

Sectoral Composition of Female New Entrants by Villages

Sector/ Village	Primary		Secondary		Tertiary		Total Non-Agriculture		Total	
	No	%	No	%	No	%	No	%	No	%
Aikkaranadu	9	26.47	13	38.24	12	35.29	25	73.53	59	100.00
Thiruvaniyur	10	21.74	25	54.35	11	23.91	36	78.26	82	100.00
Vadavukode Block	19	23.75	38	47.50	23	28.75	61	76.25	141	100.00
Edathala	4	16.67	12	50.00	8	33.33	20	83.33	44	100.00
Vazhakulam	0	0.00	29	80.56	7	19.44	36	100.00	72	100.00
Vazhakulam Block	4	6.67	41	68.33	15	25.00	56	93.33	116	100.00
Kumbalam	7	17.50	6	15.00	27	67.50	33	82.50	73	100.00
Maradu	0	0.00	2	5.13	37	94.87	39	100.00	78	100.00
Vyttila Block	7	8.86	8	10.13	64	81.01	72	91.14	151	100.00
TOTAL	30	12.61	106	44.54	102	42.86	208	87.39	238	100.00

Source: Survey data

Information regarding the rationale behind the choice of the sector of new female entrants was also collected to ascertain the factors influencing the choice of the workers. As is shown in table 7.10 female workers who chose the different sectors reported entirely different reasons for the choice. Those who have chosen the primary sector prefer the sector because of the nearness to home and nonavailability of other work. In the secondary sector, wages and nearness to home are the first two considerations. The social status associated with the sector and the working conditions also attract them. In fact these last two are the prominent factors behind the choice of the tertiary sector workers also, besides the wages.

Table 7.10

Rationale behind the Choice

Rationale	Primary	Secondary	Tertiary	Total NA	Total
Wages are higher	10.00	38.05	30.53	34.62	31.51
Better working conditions	6.67	18.58	27.37	22.60	20.59
Place of work nearby home	50.00	20.35	10.53	15.87	20.17
No other work was available	30.00	4.42	2.11	3.37	6.72
Social status associated	3.33	18.58	29.47	23.56	21.01
Total	100.00	100.00	100.00	100.00	100.00

Source: Survey data

7.1.4 Diversification through undertaking of Supplementary Activities

During the course of our survey, it was noted that owing to nonavailability of regular work in a particular sector many women take up employment in more than one activity in different sectors. So in addition to the change and choice of the sector of employment, the number and sector of the supplementary activities undertaken by the women workers were also noted. At the same time the proportion of male workers engaged in any supplementary sector was very small (barely 5 per cent in the survey data). Table 7.11 is therefore based on the number of activities undertaken by the women workers alone in the sample and Table 7.12 is meant to explain the principal sector of activity of those workers engaged in one or more supplementary activities.

It can be seen from table 7.11 that in the sample there are 260 female workers who undertake more than one activity for their livelihood. To be more specific, 30.3 per cent of the total women workers have one additional activity, while 11.6 per cent undertake at least three activities simultaneously in different sectors. In all villages a significant proportion of women ranging from 30.7 per cent in Kumbalam to 57.8 per cent in Aikkaranadu resort to this type of diversification, by undertaking more than one activity. Among the blocks in Vadavukode around 50 per cent of the women workers are engaged in more than one activity. In Vyttila and Vazhakulam the corresponding percentages are 31.5 and 43.9 respectively.

Table 7.11

Number of Activities undertaken by the Female Workers

Village\ No. of activities	One activity		Two Activities		Three Activities		Total	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Aikkaranadu	46	42.20	45	41.28	18	16.51	109	100
Thiruvaniyur	62	56.88	36	33.03	11	10.09	109	100
Vadavukode Block	108	49.54	81	37.16	29	13.30	218	100
Edathala	60	62.50	22	22.92	14	14.58	96	100
Vazhakulam	46	49.46	37	39.78	10	10.75	93	100
Vazhakulam Block	106	56.08	59	31.22	24	12.70	189	100
Kumbalam	79	69.30	27	23.68	8	7.02	114	100
Maradu	67	67.68	21	21.21	11	11.11	99	100
Vyttila Block	146	68.54	48	22.54	19	8.92	213	100
TOTAL	360	58.06	188	30.32	72	11.61	620	100

Source: Survey data

When we analyse the first-activity-status of those workers with supplementary activities, it can be seen that, in total 50 per cent of these workers fall back on the primary sector, 26.5 per cent lean on the tertiary sector and 23.5 per cent on the secondary sector. Table 7.12 illustrates this fact. This particular pattern is more or less of the same nature in all the blocks, with Vyttila and Vazhakulam having more than 50 per cent of such workers working essentially in the primary sector. Considering the secondary and tertiary, those who pursue first activity in the secondary sector are higher in Vazhakulam, while Vadavukode in this regard has more workers engaged in the tertiary sector. In Vyttila these workers are found employed in secondary and tertiary sectors equally.

Table 7.12

Principal sector of activity of workers in Percentage

Villages/ Sector	Primary		Secondary		Tertiary		Total Non-Agriculture		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aikkaranadu	28	44.44	17	26.98	18	28.57	35	55.56	63	100.00
Thiruvaniyur	24	51.06	7	14.89	16	34.04	23	48.94	47	100.00
Vadavukode Block	52	47.27	24	21.82	34	30.91	58	52.73	110	100.00
Edathala	23	63.89	8	22.22	6	16.67	14	36.17	36	100.00
Vazhakulam	20	42.55	13	27.66	13	27.66	26	57.45	47	100.00
Vazhakulam Block	43	51.81	21	25.30	19	22.89	40	48.19	83	100.00
Kumbalam	21	60.00	8	22.86	6	17.14	14	40.00	35	100.00
Maradu	14	43.75	8	25.00	10	31.25	18	56.25	32	100.00
Vyttila Block	35	52.24	16	23.88	16	23.88	32	47.76	67	100.00
TOTAL	130	50.00	61	23.46	69	26.54	130	50.00	260	100.00

Source: Survey data

Table 7.13 presents more details regarding the sectoral distribution of supplementary jobs. Among the workers who had primary sector as their first activity, 53 per cent had second activity in the secondary sector and 46.9 per cent in the tertiary sector. However, the block-wise break-up shows clearly shows the preponderance of the secondary sector in Vazhakulam and tertiary sector in Vyttila in providing supplementary job opportunities for the basically primary workers.

Table 7.13

Principal and Supplementary Sector of Workers

Principal Sector of Activity	Block \ Sector	Supplementary sectors							
		Primary		Secondary		Tertiary		Total	
	1 St activity in Primary Sector								
	Vadavukode	0	0.00	26	50.00	26	50.00	52	100
	Vazhakulam	0	0.00	37	86.05	5	13.95	43	100
	Vyttila	0	0.00	3	8.57	32	91.43	35	100
	TOTAL	0	0.00	69	53.08	61	46.92	130	100
	1 St activity in Secondary Sector								
	Vadavukode	15	62.50	0	0.00	9	37.50	24	100
	Vazhakulam	18	85.71	0	0.00	9	14.29	21	100
	Vyttila	16	100.00	0	0.00	0	0.00	16	100
	TOTAL	50	81.97	0	0.00	11	18.03	61	100
	1 St activity in Tertiary Sector								
	Vadavukode	25	73.53	9	26.47	0	0.00	34	100
	Vazhakulam	7	36.84	12	63.16	0	0.00	19	100
	Vyttila	16	100.00	0	0.00	0	0.00	16	100
	TOTAL	49	71.01	20	28.99	0	0.00	69	100

Source: Survey data

This occupational multiplicity of workers in the primary sector is also due to different reasons in the sample villages. For instance, in Vazhakulam high wages prevail in the primary sector owing to supply constraints, which in turn, reduce the demand for labour in agriculture. Nonavailability of work compels them to turn to other sectors for employment. In Vyttila it is sheer distress that forces them to undertake more than one activity. The wages of primary workers are very low - Rs 36.54 on an average because of demand constraints. At the same time, the work allotted is only for 4 hours per day- quite insufficient to enable them to earn enough for the day. Only in Vadavukode we can consider this phenomenon as an indication of new opportunities in the non-agricultural sector. As the opportunities are scarce and as the workers willing to shift are too many, there is an excess supply of labour.

For those workers to whom secondary and tertiary sector served as first activity, the supplementary sector turns out to be the primary sector as 82 per cent of the secondary sector workers and 71 per cent of the tertiary sector workers find subsidiary jobs in this sector. This situation prevails in all the three blocks, but for different reasons. In Vadavukode it is the entitlements to landholdings that have contributed to this phenomenon. But in Vyttila and Vazhakulam it is due to the nonavailability of work in non-primary sectors rather than the preference of the workers for this sector. For instance, in Vazhakulam where secondary work is available, 63 per cent of the primarily tertiary workers go in for the secondary sector as the subsidiary sector.

To analyse the sector in which the workers are more in need of supplementary activities we use Table 7.14. It can be seen that 61.6 per cent of the primary sector workers in all the three blocks together are compelled to look for work in other sectors. This percentage is 33 in the tertiary sector and 30.4 in the secondary sector. In the blocks it can be

noted that these percentages are higher in those sectors where employment is scarce. For instance, the sector that is not much in evidence in Vadavukodc block is thc tcrtiary scctor and cvcn among thosc workcrs who have found employment here, 70.83 per cent are in need of subsidiary activities. Similarly in the Vyttila block, primary and secondary sector employment is difficult to find. So 73 and 39 percentages of the workers respectively in those sectors engage in more than one activity for subsistcncc. In thc casc of Vazhakulam thc primary scctor has 87.96 pcr cent workers who have sought out other activities in different sectors. But this is not because of the push-out effect but because of the increased opportunities in the industrial sector.

Table 7.14

Sector Specific Percentage of Workers having Supplementary Activities

Villages/Sector	Primary	Secondary	Tertiary	Total
Aikkaranadu	45.16	73.91	75.00	57.80
Thiruvaniyur	46.15	21.21	66.67	43.12
Vadavukode Block	45.61	42.86	70.83	50.46
Edathala	85.19	16.00	31.58	37.50
Vazhakulam	95.45	24.07	76.47	50.54
Vazhakulam Block	87.76	20.19	52.78	43.92
Kumbalam	67.74	29.63	10.71	30.70
Maradu	82.35	57.14	14.71	32.32
Vyttila Block	72.92	39.02	12.90	31.46
All Villages	61.61	30.35	33.17	41.94

Source: Survey data

7.2 Determinants of Diversification

There are broadly two sets of variables, which help an individual to occupy a particular employment position. One set is the social and familial environment including the physical infra structure that is available - the ascriptive factors. The other set relates to what the individual achieves or acquires according to his or her efforts like education, occupational skill, experience etc- the achieved factors. Moreover, in the case of women workers in particular, the working conditions like the location, distance, hours of work, wages and welfare measures are also crucial. In this section an attempt has been made to identify the factors that determine the process of diversification among the women workers of the villages under study.

7.2.1 Diversification Model

Let us first examine the factors that distinguish the workers who have diversified to the secondary and tertiary sectors from all the other workers in the sample. To this end we shall use a bivariate logit model. Besides identifying the determinants it also predicts the probabilities of a worker being diversified.

The dependent variable for the analysis of diversification (DIVERSE) is a dichotomous variable that takes the value 1 if the person is engaged in secondary or tertiary sector and 0 if otherwise. Thus in the base or reference category all workers above the age of fifteen who are employed in either primary, secondary or tertiary sector are included.

Three groups of variables are hypothesised to influence the diversification decision of female workers. They are those representing

individual, familial and job characteristics of the workers in the sample. These independent variables were entered in to the model block-wise. The table 7.15 below gives the definitions of the variables used in the diversification functions.

Among the variables that denote the individual characteristics of the workers, age and experience are entered in quadratic form to see if there is any differential impact of these variables on the diversification-decision. The variable CASTE is entered as dichotomous with all workers belonging to backward caste getting a value 1 and all others getting 0. The variable SCHOOL represents the actual number of years the workers had spent for education. The variable MARRIED also is entered as dichotomous indicating the current marital status of the workers as 1 if married and 0 if single.

In the group that relates to the familial status of workers the variable FSIZE or family size is a continuous one that takes note of the number of family members. There is only one dichotomous variable in this group and it indicates the nature of family (set to equal one if joint and 0 if otherwise). To capture the economic status of the household the variable LAND is taken. It indicates the size of land-holdings of the family. The variable BSPOP indicates the number of children below the age of six. The number of non-agricultural members in the family - NONAGRI - is included as 'a circle of contacts' variable (as in Unni 1997) as a means of access and exposure to non-agricultural jobs.

In the group of job and residence characteristics there are four categorical variables. Of these EMP STAT 1 and EMP STAT 2 are dummy variables indicating the employment status of the workers. Thus in EMP STAT 1 it takes the value 1 if a person is a regular employee and 0 if

otherwise. Similarly in EMP STAT 2 the variable takes 1 if it is a casual employee and 0 if not. BLOCK 1 and BLOCK 2 are also dummy variables in the sense that if it is Vyttila block it takes the value 1 and if not 0. In block 2 the variable takes 1 if the block is Vazhakulam and 0 if not. Other variables in this group are DISTANCE - distance travelled in Kms., HWORK - Hours of employment per day, MWAGE - monthly wages, and NDEMP - the number of days employed in a month.

Table 7. 15

Definitions of Variables used in the Diversification Function

Variable	Description
I. Individual characteristics	
AGE	Age in years
AGESQ	Square of Age
EXPER	Years of experience in the present job
EXPERSQ	Square of EXPER
CASTE	One for backward caste and 0 otherwise
SCHOOL	Years of Schooling
MARRIED	One for currently married and 0 otherwise
II. Family characteristics	
FSIZE	Number of family members
NAFAM	One for joint family and zero for Nuclear
BSPOP	No of below six Children in the family
LAND	Size of family land holdings
NONAGRI	No of non agricultural members in the family
Job and residence characteristics	
DISTANCE	Distance to work place in Kilometers
HWORK	Hours of Employment per day
NDEMP	No of days employed in a month
MWAGE	Monthly wages
EMP-STAT-1	If regular employee 1 others zero
EMP-STAT-2	If Casual Employee Yes 1 others zero
BLOCK 1	Vyttila 1 Others 0
BLOCK 2	Vazhakulam 1, Others 0

Table 7.16 sets out the descriptive statistics of the variables in the equation.

Table 7.16

Descriptive Statistics

Variables	Primary Workers		Diversified Workers		All Workers	
	Mean	S.D	Mean	S.D	Mean	S.D
AGE	40.83	13.00	35.08	11.17	37.38	12.25
AGESQ	1834.76	1106.11	1355.63	846.82	1546.55	985.6
EXPER	20.59	13.39	8.89	8.77	13.56	12.26
EXPERSQ	602.21	670.59	155.64	309.75	333.58	532.94
CASTE	.81	0.39	0.76	.43	0.78	0.41
SCHOOL	4.74	3.88	8.03	3.97	6.71	0.47
MARRIED	0.76	0.43	0.64	.48	0.69	4.24
FSIZE	4.91	1.59	4.89	1.74	4.90	1.68
NAFAM	0.46	.50	0.39	0.49	0.41	0.49
BSPOP	0.54	0.80	0.39	0.73	0.45	0.76
LAND	16.94	23.55	21.16	27.81	19.47	26.25
NON AGRI	1.08	1.116	2.40	1.07	1.88	1.26
DISTANCE	1.09	1.86	5.06	6.40	3.48	6.73
HWORK	6.27	2.25	7.33	1.61	6.91	1.96
NDEMP	12.45	6.22	20.74	8.59	17.44	8.73
MWAGE	734.36	594.04	1738.55	2056.42	1338.42	1709.36
EMP-STAT-1	6.45	8.03	0.34	0.48	0.21	0.41
EMP-STAT-2	0.80	0.40	0.56	0.50	0.65	0.48
BLOCK 1	0.36	0.48	0.35	0.48	0.35	0.48
BLOCK 2	0.23	0.42	0.44	0.50	0.35	0.48

Source: Computed from the survey data

The specifications of the logit model estimated are reported in table 7.17. The Logit coefficients B in column 2 present the likelihood of being diversified as a function of the three sets of independent variables discussed earlier. In column 3 the Wald statistics for the B coefficients of the variables defined as $(B/S.E._B)^2$ is given. It is the square of the (asymptotic) t-statistics, which is distributed chi-square with one degree of freedom. In column 4 Exp (B) or the "odds ratios" of the individual coefficients are given.

The Figure 7.1 is a graphic description of the observed groups and their predicted probabilities.

Table 7.17

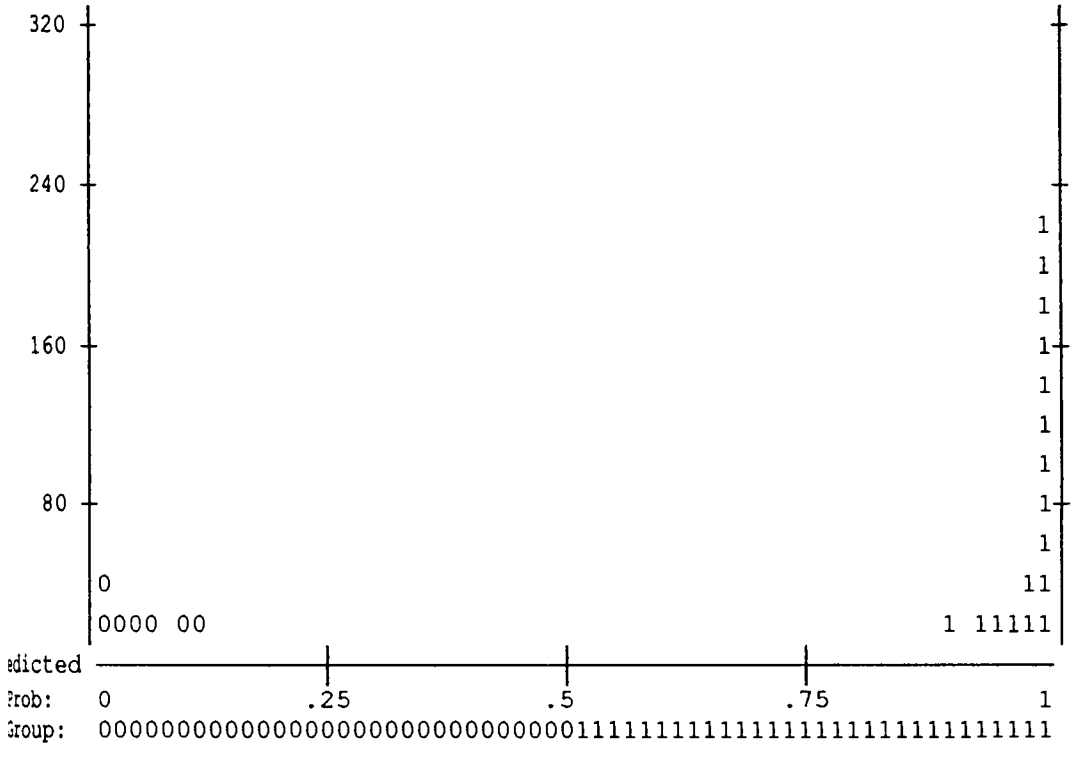
Maximum Likelihood Logit Estimates of Diversification

Variable	Coefficient	Wald Statistics	Exp (B)
AGE *	0.1741	3.5676	1.1902
AGESQ*	-.0021	3.5542	.9979
EXPER***	-.3449	35.1490	.7083
EXPERSQ ***	.0064	26.3438	1.0064
CASTE	-.1611	.6919	.8512
SCHOOL	.0694	1.2373	1.0719
MARRIED	.4934	1.2998	1.6379
FSIZE ***	-.5230	13.8776	.5928
NAFAM	-.3165	1.2227	.7287
BSPOP	-.4114	2.1159	1.5089
LAND	-.0086	1.4277	.9914
NONAGRI***	1.6188	69.1409	5.0470
DISTANCE ***	.2843	6.4690	1.3288
HWORK***	.369	6.2428	1.2674
MWAGE	.0003	1.1019	1.0003
NDEMPLOY***	.0725	12.2876	1.0752
EMP-STAT-1	-3.0787	8.3586	.0460
EMP-STAT-2 ***	-.4093	.8750	.6641
BLOCK 1 ***	-3.1626	41.5589	.0423
BLOCK 2***	-1.7238	17.2592	.1784
Constant	2.4327	1.0970	
-2 Log Likelihood	280.571		
Model Chi-square	517.197		
Degrees of freedom	20		
Percentage of Prediction	90.97		
Number of observations	620		

Note * denotes the variable concerned is significant at 10 %, **denotes the sam
at 5% and *** denotes it to be 1 % level of significance.

Fig. 7.1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for 1.00
The Cut Value is .50
Symbols: 0 - .00
1 - 1.00
Each Symbol Represents 20 Cases.

As for the hypothesised relationship between AGE and probability of diversification of workers it is presumed that there exists a non-linear relationship with a positive slope first and then negative. In this study also we have noted a significant quadratic effect in age at ten per cent level for women workers who have diversified. The cross tabulations of the sample population by age and sector shown as table 7.18 also confirm this type of a relationship.

Up to the age group of 35-44, the proportion of diversified women is found to be increasing and the chances of being a diversified worker declines once this age group is crossed. Thus an inverted U shaped relationship can be observed between these two independent variables - age and its squared term with the dependent variable diversification.

Table 7.18

Age group of the Women Workers by Sector of Activity

Sector/ Age Group	Primary	Secondary	Tertiary	Total NA	Total
15-24	8.92	22.73	17.22	19.90	16.13
25-34	17.37	30.30	26.79	28.50	24.68
35-44	24.88	27.27	31.10	29.24	27.74
45-54	29.58	15.15	20.10	17.69	21.77
Above 55	19.25	4.55	4.78	4.67	9.68
total	100.00	100.00	100.00	100.00	100.00

Source: survey data

The years of experience here are calculated as 'age less age at which the individual started work'. This is considered more accurate than the age less age at which left school' used in most studies. This is because of the recognition of the fact that not all people particularly women start work immediately after schooling. Both EXPER and EXPERSQ are also revealed to be important determinants of diversification in the sense that more years

of experience of the worker have a differential impact on the workers who are diversified. The variable experience is significant at one per cent level with a negative relationship, which means that the lower the experience the higher is the likelihood of being a diversified worker. The square of experience is significant at 1 per cent level and it has a positive association that indicates a U shaped relationship with the dependent variable, as it is also evident from the table 7.19.

Table 7.19.

Experience of the Women Workers by Sector of Activity

Year\Sector	Primary	Secondary	Tertiary	Total Non - agriculture	Total
Below 3	6.57	38.19	33.01	35.54	25.65
3 to6	11.27	19.10	23.92	21.57	18.06
6 to9	4.23	13.57	7.18	10.29	8.23
9 to12	8.92	10.05	6.22	8.09	8.39
12 to15	7.98	2.01	8.13	5.15	6.13
15 to 18	2.35	4.02	2.39	3.19	2.90
18 to 21	14.08	5.53	8.61	7.11	9.52
Above 21	44.60	7.54	10.53	9.07	21.13
Total	100.00	100.00	100.00	100.00	100.00

Source: Survey data

Another important variable that determined the ascribed status of a worker till recently was the caste in to which they were born. However, maybe because Kerala is a very progressive state, that in this analysis CASTE is revealed not to be an important social institution that influences the act of diversification. Still the relationship is negative indicating that

workers belonging to the backward caste have less probability of being a diversified worker.

Similarly the years spent at school and the marital status of the workers was also revealed insignificant in this model. However the nature of relationship as expected is positive with the variables SCHOOL and MARRIED. This indicates that as the years spent at school increase the chances to diversify also increase and if a person is currently married the probability of diversification is high.

Among the variables that represent the family characteristics only two have crucial influence on the diversified status of the workers. One is the FSIZE OR FAMILY SIZE and the other is NON AGRI the number of non-agricultural members in the family. Both these variables are revealed to be significant at one per cent level but the nature of the relationship is different, i.e. family size negatively influences the act of diversification whereas the number non-agricultural members has a positive impact. Family size generally can have either positive or negative relationship with diversification but much depends on the nature of the family. So we included that variable also in the analysis. Though joint families are found more inclined to diversification the variable NAFAM is revealed insignificant in our analysis. This prompts us to conclude that despite the nature of the family, the family size is having a negative influence.

The other variables included in this group like BSPOP and LAND turned out to be insignificant having negative influence on diversification.

Among the job related variables DISTANCE, HWORK, and NDEMPLOY are significant. All these variables are positively related to diversification. Thus as the distance travelled, hours of work employed and

the number of days employed increase, the worker seems to be more probably a diversified worker. Since EM STAT 1 indicates regularity in employment, we naturally expect a positive relationship with the dependent variable. Nevertheless, in our sample we have found it to be negative. A cross tabulation of the employment status by sector of activity explains the reason for the change in sign. It is r evealed from Table 7.21 that even in the diversified category of workers, fifty two per cent are casual labourers and only 35 per cent are regularly employed.

In order to know whether there exists any differential impact on diversification due to residence we had included two dummy variables, BLOCK 1 and BLOCK 2. It is found that the place of residence being block 1 or 2 is a crucial factor deciding the probability of diversification. This need to be so as the percentage of diversified workers is much more in Vyttila and Vazhakulam than in Vadavukode as is evident from Table 7.2.

7.2.2 Discriminant analysis

With the help of the canonical discriminant analysis we have also identified the factors that discriminate the diversified workers from the other workers[1]. Table 7.20 summarises the results of the discriminant analysis.

Table 7.20

Canonical and Standardised Discriminant Co-efficients

Factors	Mean diffe-rence	Canonical discriminant Co-efficient function	Standardised Canonical discriminant Co-efficient function	%Share of Discri-mination	Rank of Variables Discri-mination
SCHOOL	-3.29	0.077	0.304	9.139	6
AFSIZE	0.02	-0.22	-0.370	11.1338	4
EXPER	11.7	-0.065	-0.704	21.187	2
NDEMPLOY	-8.29	0.039	0.312	9.393	5
MWAGE	-1004.19	0.0001	0.185	5.556	8
AGE	5.75	-0.0329	0-0.382	11.507	3
NONAGRI	-1.32	0.709	0.795	23.875	1
SOCSTAT	-0.09	0.263	0.273	8.202	7

Value of function at Group Centroids
Non- Agricultural female labourers: 0.714
Agricultural Female labourers: -1.457
Chi-Square Value: 274.163 significant at 5 % level.

The mean differences of the selected indicators between the female agricultural and non-agricultural workers are given in column 1 of Table 7.20. It reveals that in matters of general education, number of days of employment, monthly income, number of non-agricultural members in the family and index for general and social participation, non-agricultural female workers have higher mean values than the agricultural workers. At the same time the values of variables such as household size, years of experience and age are higher for agricultural workers.

The discriminant function co-efficient in column 2 shows co-efficient values that discriminate between the two groups of workers-agricultural and non-agricultural. The groups centroid value for non-agricultural and

agricultural female labourers are 0.714 and -1.457 respectively. The groups centroid values refer to the mean value of each group. It implies that the variables having negative co-efficient have more strength to place a particular person in the category of agricultural workers while the positive discriminant co-efficient variables will place the workers in the non-agricultural category.

In this analysis the variables such as general education, number of days of employment, monthly income, number of non-agricultural members in the family and index for general and social participation has positive discriminant function co-efficient. An increase in the values of any of these variables will have a greater chance of placing a worker in the category of non-agricultural group. At the same time an increase in the value of any other variable that is having negative co-efficient such as household size, experience and age will place a worker in the group of agricultural workers.

The standardised canonical discriminant function co-efficent in column 3 reveals the percentage contribution of each variable on either to agricultural or non-agricultural occupation with respect to one unit change in the respective variables.

The percentage share and their corresponding ranks are also given in the table in columns 4 and 5 respectively. It shows the highest impact on shifting employment from agriculture to non-agriculture and vice versa is made by the number of non-agricultural members in the family followed by the years of experience in the particular activity. Similarly the number of non-agricultural members in the family and no of days of employment are the main discriminant factors that places a worker in the category of

non-agricultural workers, while experience and age are determining factors in the case of agricultural workers.

The results of this discriminant analysis in effect supplement our logit estimations. On the light of these findings the behavioural pattern of the women workers can be explained in the following manner.

The rural women workers, to find regular employment and thus earn, stabilise and increase their income adopted different strategies of diversification. As a first option they diversified to the newly-started or already existing household or non-household industries. Even though the earnings are lower and place of employment distant, these jobs ensured a more or less regular employment and income. Women workers show a preference to this type of diversification only due to the nature of its regularity. This was revealed from the survey of sample villages especially from the secondary sector dominated villages of Vazhakulam block. The workers who have chosen this type of diversification are, however, found to be in higher age groups, with more family responsibilities. They also have only low levels of education, health and social status and very low bargaining power even as a group.

Second, workers doing similar work diversified by moving in groups either on their own or in contract so that they get regular employment and income either within the village or nearby villages. This practice is very much in operation in the construction sector in all the three blocks. In group for a higher income they are willing even to do risky jobs in quarries and large construction sites. Thus this group of workers, though having low educational status, is healthy, courageous and earns a substantial income most often to be the sole supporters of their family.

Third, women workers also diversified to casual jobs in the tertiary sector and commuted more distances on this account to urban and semi-urban areas. Newly educated young women are found to have a preference for these types of jobs. But the fact is that they work for longer hours for low wages and if we add their travel time with their working hours the situation is further worsened. Even these women are crowding into certain jobs that require no particular skill and have no prospects of promotion. Most of the tertiary sector workers in the villages were found employed as primary school teachers, nursing or other paramedical staff, and booking or accounting clerks and sales girls in private stores etc. They do not aspire for any occupational mobility vertically. Only horizontal movements along the same or similar type of occupations are foreseen. Few women ventured into self-employment in garment making, trade-related activities or personal services.

7.3 Employment Status of Diversified Workers

The nature of the development process initiated by the process of diversification is discussed in this section, taking into account both employment status and the economic status of the individual workers. In Table 7.21 the break up of the employment status by villages are given. In all the villages the proportion of self-employed workers in non-agriculture is very low. Only 12.8 per cent workers are self-employed. Even though 35.4 per cent of the workers work as regular employed a considerable proportion i.e. 51.8 per cent also work as casual workers in this sector. Between the secondary and tertiary sectors casual employment is prominent in the former as 73.2 per cent of the workers employed here are casual workers.

Among the villages except for Thiruvaniyur, all others had more than half of the workers in the casual labour status in non-agriculture. This calls forth the conclusion that the non-agricultural rural employment available in the sample villages is more in the form of wage employment than self or regular employment.

Table 7.21

Employment Status of Workers by Sector and Village

Village\ Status\Sector	Primary	Secondary	Tertiary	Total Non agriculture	Total
Aikkaranadu					
SE	11.29	8.70	4.17	6.38	9.17
RE	0.00	17.39	62.50	40.43	17.43
CL	88.71	73.91	33.33	53.19	73.39
TOTAL	100.00	100.00	100.00	100.00	100.00
Thiruvaniyur					
SE	31.48	16.13	25.00	20.00	25.69
RE	0.00	22.58	62.50	40.00	20.18
CL	68.52	61.29	12.50	40.00	54.13
TOTAL	100.00	100.00	100.00	100.00	100.00
Vadavukode Block					
Village\ Status\Sector	Primary	Secondary	Tertiary	Total Non agriculture	Total
SE	20.69	12.96	14.58	13.73	17.43
RE	0.00	20.37	62.50	40.20	18.81
CL	79.31	66.67	22.92	46.08	63.76
TOTAL	100.00	100.00	100.00	100.00	100.00
Edathala					
SE	25.93	4.00	10.53	5.80	11.46
RE	0.00	28.00	84.21	43.48	31.25
CL	74.07	68.00	5.26	50.72	57.29
TOTAL	100.00	100.00	100.00	100.00	100.00

Table 7.21(contd.)

Vazhakulam					
SE	0.00	5.66	27.78	11.27	8.60
RE	0.00	18.87	61.11	29.58	22.58
CL	100.00	75.47	11.11	59.15	68.82
TOTAL	100.00	100.00	100.00	100.00	100.00
Vazhakulam Block					
SE	14.29	4.85	18.92	8.57	10.05
RE	0.00	23.30	72.97	36.43	26.98
CL	85.71	71.84	8.11	55.00	62.96
TOTAL	100.00	100.00	100.00	100.00	100.00
Kumbalam					
SE	61.29	14.81	19.64	18.07	29.82
RE	0.00	3.70	41.07	28.92	21.05
CL	38.71	81.48	39.29	53.01	49.12
TOTAL	100.00	100.00	100.00	100.00	100.00
Maradu					
SE	29.41	7.14	14.71	13.41	16.16
RE	0.00	0.00	41.18	34.15	28.28
CL	70.59	92.86	44.12	52.44	55.56
TOTAL	100.00	100.00	100.00	100.00	100.00
Vyttila Block					
SE	50.00	12.20	16.94	15.76	23.47
RE	0.00	2.44	41.13	31.52	24.41
CL	50.00	85.37	41.94	52.73	52.11
TOTAL	100.00	100.00	100.00	100.00	100.00
All Villages					
SE	25.82	8.59	16.75	12.78	17.26
RE	0.00	18.18	51.67	35.38	23.23
CL	74.18	73.23	31.58	51.84	59.52
TOTAL	100.00	100.00	100.00	100.00	100.00

Source: Survey data

To find in which sector this process has been more intensified we look at the sector wise distribution of casual workers given in table 7.22. It indicates that among the casual workers 57.18 per cent are employed in the non-agricultural sector. In fact more than one third of them are employed in the secondary sector.

Table 7.22

Sector Wise Distribution of Casual Workers
by Villages and Block

Village\Block\ Sector	Primary	Secondary	Tertiary	Total NA	Total
Aikkaranadu	68.75	21.25	10.00	31.25	100
Thiruvaniyur	62.71	32.20	5.08	37.29	100
Vadavukode Block	66.19	25.90	7.91	33.81	100
Edathala	36.36	61.82	1.82	63.64	100
Vazhakulam	34.38	62.50	3.13	65.63	100
Vazhakulam Block	35.29	62.18	2.52	64.71	100
Kumbalam	21.43	39.29	39.29	78.57	100
Maradu	21.82	23.64	54.55	78.18	100
Vyttila Block	21.62	31.53	46.85	78.38	100
All villages	42.82	39.30	17.89	57.18	100

Source: Survey data

7.3.1 Employment Status of Shifted Workers

Workers may get diversified to other sectors either voluntarily or because of compulsion. If the shift is voluntary it might be due to the pull factors that have resulted in improving their employment and economic status. The compulsion often comes from the non-availability of work in the preferred sector of employment. Here the workers are pushed off to another sector in search of a livelihood. A close look at the employment status of the shifted workers in the villages will also enable us to identify broadly the main reasons for their sectoral shift.

In Table 7.23 the employment status of shifted workers is given. Of the total 214 workers shifted only 68 workers i.e around 32 percent has had a shift in their employment status also. Still, there is statistical evidence of dependence between the sector shift and status shift. In the Chi-square test done to test this dependence the calculated value (29.91) is found greater than the table value at 5 per cent level. Thereby our hypothesis in this regard is rejected.

Table 7.23

The Employment Status of the Shifted Female Workers

	Shifted Status							
Initial status	Employment Status	SE	RE	CE	Total	Status Shift	Percent	Percentage of workers Casualised
	Self Employed	6	10	4	20	14	70.00	20.00
	Regular employed	3	5	9	17	12	70.59	53.00
	Casual employed	12	30	135	177	42	23.73	76.27
	TOTAL	21	45	148	214	68	31.78	68.22

Source: Survey data

When the status of the shifted workers is subject to more scrutiny it is observed that, while 76.3 per cent of the casual employees retained the same status even after the shift, 20 per cent of the self-employed and 53 per cent of the regular employed also became casualised. Thus it can be presumed that the nature of the status shift that followed the sector shift is not in a desired direction and there exists high degrees of casualisation in the diversified sectors. An interesting observation noted in this regard is that the reason behind the shift even then was more often voluntary.

7.3.2 Employment Status of the New Entrants

When we examine the employment status of the new entrants, again it can be seen that 51.26 per cent of the new entrants are employed as casual labourers. In fact, except in Thiruvaniyur and Edathala in all other villages more than half of the new entrants, started working as casual workers.

The percentages of self-employed among the new entrants are low in all villages. As revealed from table 7.24 they constitute only 16 per cent in all the villages together. Among them, Maradu with 6 per cent has the lowest and Thiruvaniyur with 23.3 percent has the highest percentages of self-employed new entrants. Those who had entered as regular employed, comes to be 32.7 per cent of all the new entrants. It is interesting here to find both the highest and lowest figures in the same block - Vazhakulam.

7.3.3 Employment Status in the Supplementary Activities

The employment status of the workers who diversified by undertaking more activities in other sectors was also observed. Table 7.25 refers to the details of the differences in status in both their principal and supplementary sectors. While 20.4 percent of these workers had a different status in the supplementary sector, majority remained in the same status as in their principal sector. This is more especially so in the case of casual workers. Around eighty seven percent of these workers belong to this status in both their main and supplementary sectors. Furthermore 16.7 per cent of the self-employed and 10 percent of the regular employed are found to be engaged in casual labour in their supplementary sectors.

Table 7.24

Employment Status of the New Entrants

Village/Status	SE	%	RE	%	CL	%	Total	Percentage
Aikkaranadu	4	11.76	12	35.29	18	52.94	34	100
Thiruvaniyur	10	23.26	15	34.88	18	41.86	43	100
Vadavukode Block	14	18.18	27	35.06	36	46.75	77	100
Edathala	9	19.57	18	39.13	19	41.30	46	100
Vazhakulam	6	15.00	8	20.00	26	65.00	40	100
Vazhakulam Block	15	17.44	26	30.23	45	52.33	86	100
Kumbalam	7	17.95	12	30.77	20	51.28	39	100
Maradu	2	5.56	13	36.11	21	58.33	36	100
Vyttila Block	9	12.00	25	33.33	41	54.67	75	100
TOTAL	38	15.97	78	32.77	122	51.26	238	100

Source: Survey data

Table 7.25

The Employment Status in the Supplementary Activities

	Supplementary Sector							
Principal Sector	Employment Status	SE	RE	CE	Total	Diff. Status	Percent	Casualised in supplementary sector
	Self employed	6	4	2	12	6	50.00	16.67
	Regular employed	15	3	2	20	17	85.00	10.00
	Casual employed	25	5	198	228	30	13.15	86.84
	TOTAL	46	12	202	260	53	20.38	77.69

Source: Survey Data

From the preceding discussions regarding the employment status of the diversified workers it is quite clear that the diversification process has not in any way raised the status of rural women workers in the district. Even though there is statistical evidence of dependence between sectoral shift and status shift, what actually has happened is a switch over of casual wage labourers from agricultural occupations to non-agricultural operations. This is quite evident as a fairly well percentage of the new entrants enter as casual labourers. Moreover a great majority of supplementary jobs available to the rural women workers are also of casual nature. Thus our presumption as to the outcome of the diversification process in our sample villages is increased casualness of the workers.

Once the casualisation phenomenon is established, what remains to be seen is the extent to which this sectoral and status shift has influenced the terms and conditions of employment contract of these workers. This will enable us to know the quality of the jobs available in the non-

agricultural sector. So we next analyse these aspects by taking up the terms of employment in different sectors.

By quality of jobs is meant their regularity, nature- i.e. whether it is part time, seasonal, exploitative, or general, the income levels that they generate, the reliability and protection they receive and the conditions under which they are carried out. Measuring labour status concerning on all these aspects is a difficult task. Still an attempt is made with the objective of finding out the relative status of being a worker in the non-agricultural sector in relation to that of an agricultural worker.

The table 7.26 shows all the major indicators of the terms of work of the workers in the sample. While the average experience of a worker in the primary sector is above 20 years, in the secondary and tertiary sectors they have less than 9 years of experience in the sample villages. This indicates that the process of diversification that has occurred in these villages is a recent development of the past decade.

It is also evident from our analysis that it is the regularity of employment in terms of the days employed and hours of work per day that counts most in the identification of a diversified worker. The number of days of employment is seen to be more for a worker in the tertiary sector, as on an average 25 days employment is secured by these workers than in other sectors. In all the blocks a tertiary worker secures more than 20 days of employment. In the secondary sector in Vyttila the workers get only around 13 days of employment. But in the other two blocks the workers are employed at least for 18.5 days. Part- time employment is not found common in the secondary and the tertiary sectors. However, among primary sector workers, especially among the workers of the Vyttila block, part time employment is prevalent, and, this too being but seasonal to some

extent necessitates the undertaking of multiple activities in different sectors.

Meanwhile the average distance to the workplace from home and the average hours of work done are more in the diversified sectors than in the primary sector. On an average a worker in the tertiary sector travels 5.1 kilometres whereas in the primary and secondary sector the distance travelled is 1.1 and 1.8 respectively. As far as hours of work are concerned an employee works for 7.7 hours a day in the secondary sector, 6.3 hours in the primary sector and 7.0 hours in the tertiary sector. When both the travelling time and the hours of work done are taken together, the diversified workers are found to be at a disadvantage. Women employed in the private firms in the tertiary sector were found to have suffered most on this account.

As for the income generated, we have used three measures- hourly income, daily income and monthly income. The hourly wages of rural women workers are lower in the secondary sector than those of their counterparts in the primary sector in all sample blocks, as is evident from the table. Even if we take both the non-agricultural sectors together, there is only a marginal difference between the hourly wages in the primary sector and the non-agricultural sector. Nevertheless, there exist differences in the daily wages. The daily wages prevailing in the primary and secondary sectors are Rs 56 and 59.5 respectively. In the tertiary sector this wage rate is much higher, Rs 103.55. The differences among the sectors widen if we observe the wages at the monthly level. Yet, between the primary and secondary sectors there is not much difference. In all these matters there are important regional differences in different blocks, which can be seen in table 7.26.

Table 7.26

Averages of Job related Variables by Sector and Block

Block	Primary	Secondary	Tertiary	Total NA	Total
Vadavukode					
Experience	22.5	9.0	8.5	8.74	16.4
Hours of work	7.5	7.7	7.3	7.5	7.5
No of days employed	12.2	18.5	24.6	21.4	16.3
Distance travelled	1.0	2.5	16.6	9.3	4.7
Daily wages	61.39	53.65	147.14	98.53	77.82
Hourly Wages	8.29	6.71	20.51	13.33	10.52
Monthly income	768.25	976.38	3148.13	2018.82	1321.60
Vazhakulam					
Experience	22.6	7.3	10.3	8.1	11.9
Hours of work	7.5	7.8	6.6	7.5	7.5
No of days employed	12.9	18.6	26.6	20.8	18.7
Distance travelled	0.9	1.3	5.6	2.1	2.5
Daily wages	77.27	57.73	116.49	69.77	71.73
Hourly Wages	10.29	7.31	18.63	10.41	10.38
Monthly income	984.03	1027.78	2944.25	1553.87	1405.22
Vyttila					
Experience	17.2	15.1	8.5	10	12.9
Hours of work	4.1	7.2	7.1	7.0	5.8
No of days employed	12.8	13.1	24.6	22.1	18.3
Distance travelled	1.3	2.94	6.38	5.62	3.87
Daily wages	36.54	74.93	81.55	80.09	62.42
Hourly Wages	11.65	10.19	11.1	10.92	11.21
Monthly income	535.71	934.16	2040.1	1797.37	1285.40
Total					
Experience	20.6	8.9	8.9	8.8	12.3
Hours of work	6.3	7.7	7.0	7.3	6.9
No of days employed	12.6	17.7	25.1	21.4	17.9
Distance travelled	1.1	1.8	8.3	5.1	3.5
Daily wages	56.10	59.45	99.96	81.31	71.27
Hourly Wages	9.97	7.62	14.9	11.21	10.72
Monthly income	734.35	1002.18	2487.62	1738.54	1338.42

Source: Survey data

There are certain things that attract the rural women to the casual jobs in the non-agricultural sector in the sample villages. Owing to the increased days of employment and higher income in this sector, workers willingly travel more distance and endure long hours of work. Besides the social development and increased literacy among the workers prevent them from choosing the primary sector for a livelihood. Even the workers who have had only a few years of schooling are content to have casual jobs in the non-agricultural sector. Even if the initial wages in this sector are low the educated young women grab the opportunity without any second thoughts in the hope that it will enable them to find regular employment in future.

As for the reliability and protection of employment it was found that there has not been any type of job-security to the diversified casual workers. In all the sample villages this uncertainty was more discernible in the secondary sector than in others. It was found that the regular availability of work for the casual women in manufacturing units depended on the availability of the regular supply of raw materials, power and credit to the employer. Even weather determined the demand for industrial workers, as many of them reported lack of adequate days of employment in the rainy season. Furthermore in the event of any casualty at the work site they were completely at the mercy of the employers. The plight of the casual workers in the tertiary sector is also similar except for the fact that they have a more certain environment.

From the above analysis it is clear that in certain respects the status of the diversified workers in non-agriculture is in no way different from that of the workers in the primary sector. In the sector to which they have diversified they still remain casual workers with all the disadvantages attended on being so having no protection, freedom or security at the work

place and uncertain about the future. Still due to the increased hours and days of work and also due to the enhanced monthly income we can say that diversification has had a positive impact on the social and economic status of women workers in the sample.

Note

[1] In order to identify the variables for the discriminant analysis initially we had selected the following factors.1) General education 2) Age 3) Marital status 4) House hold size 5) Caste 6) Years of experience 7) Distance of employment 8) Hours of work per day 9) Daily wage 10) Number of days employed during last month 11) Monthly income 12) Per capita expenditure 13) Size of land possessed 14) Number of non-agricultural members in the family 14) Index of freedom 15) Index of decision making 16) Index of control over income 17) Illness due to present employment 18) Index for general and social participation. A criterion of minimum and maximum partial F value is used for selecting the variables from the above list. (The minimum F-value to enter a variable is 3.84 or the minimum probability of F value to enter a variable is 0.05). Based on this criterion the variables selected are general education, age, household size, years of experience, number of days employed during last month, number of non-agricultural members in the family and index for general and social participation.

CHAPTER VIII

CONCLUSION

The basic objective of the present study has been to observe the process and pattern of employment diversification among the rural women workers in Ernakulam district. As a framework for the analysis, the study first examined the peculiarities of the rural employment structure existing in Kerala. With conclusive evidences of a diversified employment structure, the study has subsequently identified the major factors that contributed to the variations in rural female non-agricultural employment. Empirical evidences were also collected from 450 households in six sample villages of the three selected blocks. This primary survey enabled us to observe the nature and pattern of non-agricultural activities undertaken by the women workers in the sample. The determinants and the consequences of diversification among rural women in the district were also looked into. In this chapter, therefore, the discussion centers on the main findings and the implications of these findings to theory and policy.

The major observations made from the study of macro statistics are noted down in section one, and in section two the findings from the primary survey are recorded. Section three constitutes the implications of the study.

8.1 Rural Employment Structure in Kerala

The data used for highlighting the rural employment structure in Kerala in comparison with that of India is from secondary sources based on the NSSO and Census reports. The following observations are made in this regard.

(1) The work participation of rural women in Kerala is lower than that of the nation as a whole. While 29.9 per cent of the women in rural India engage in some economic activity or other in the NSSO estimates, the percentage of women workers in Kerala is only 23.8. Consequently the unemployment rates among rural women in Kerala are also high. In fact 13 per cent of the female workforce and 49.1 per cent of the educated females in rural Kerala are unemployed.

(2) Among the Indian states, Kerala is also one where there exists gender disparity in work participation. The Female Male Participation ratio of the state is found to be very low at 0.43, while those of the other south Indian states ranges from 0.64 to 0.79.

(3) A decline in work participation is also noticed among the rural women workers in the NSSO and Census Estimates. The decline happens to be from 41.3 per cent to 23.8 in the NSSO reports between 1978-2000 and from 20.9 to 15.9 in the Census reports between 1961-2001.

(4) In both the NSSO and Census estimates the share of female employment in the non-agricultural sector in rural Kerala is substantially higher than that in rural India. It is 40.3 per cent in the former and 43.7 per cent in the latter. The corresponding figures in the national statistics are 14.8 and 10.5 per cent respectively.

(5) As for the trend in sectoral shift, the participation in non-agriculture increased from 27.4 per cent to 40.3 per cent during the period 1978-2000 in the NSSO estimates. The trend in the Census estimates reveals this to be from 35.3 in 1961 to 43.7 in 1991.

(6) Within the rural non-agricultural sector the female workers are mainly engaged in secondary activities in India and Kerala with a rise in their share in non-household manufacturing and decline in household manufacturing. While the secondary sector employment of rural women is 9.0 and 22.8 respectively in India and Kerala, the same in the tertiary sector is only 5.8 and 17.5 respectively.

(7) There has occurred a decline of casual labourers among the rural females in the long run in Kerala, whereas a rise is seen among the regular employed as against the trend of casualisation at the national level.

However, the evidences are that the women workers in the rural areas of the state are being increasingly diversified into the tertiary sector. When we examined the changes in participation rates of rural women in different sectors over the period 1977-78 to1999-2000, the tertiary sector had an increase of 8.35 percentage points as against the increase of 4.57 percentage points in the secondary sector. Thus there is clear-cut evidence for the fact that in Kerala non-agricultural employment of rural women is increasing with more and more of them getting diversified into the tertiary sector.

Except for a few backward districts in north Kerala and the tribal district of Idukki, all the districts of the state have a higher average than the state (68.2 per cent) of females working in the non-agricultural sector in the year 2001. The participation rates vary between 89.2 per cent in Kollam to 32.4 per cent in Palakkad.

The percentage difference between the years 1981 and 2001 is really high in all the districts. It ranges from a decline in only one district, that is Idukki, by 8.9 per cent to a rise in all other districts that reaches a peak level of 36 percentage point in Malappuram. This is mainly due to the decline in the cultivation, especially that of paddy attributable to commercialisation of agriculture, government programmes of diversification of economic activities, and increased socio-economic status in terms of literacy, health-care and income. Rural women are more inclined to take up employment in the non-agricultural sector, where they expect regular and more remunerative work, which enhances their social status.

The sector-wise break-up of rural employment shows that the decline of women participation in the primary sector varied from 0.74 per cent in Palakkad to 12.16 per cent in Kollam between the period 1981 and 1991. A rise in the primary sector employment and a consequent decline in non-agricultural employment are noted only in Kannur and Thiruvananthapuram, where the actual share in non- agriculture is considerably high.

Disaggregation of work participation within the sectors for the state and districts is yet to be published for the census year 2001. So we had to limit our analysis on inter-sectoral comparisons to the period 1981-91. Then, it is noted that in seven districts the share of the secondary sector in

employment structure declined. While this decline was marginal in Ernakulam, Trissur and Palakkad, it was sharper in Kannur and Thiruvananthapuram with 11.45 and 7.81 percentage points. Despite the crisis in the traditional industries of coir and cashew during this period, there has occurred an increase in the proportion of female workers in the districts of Alappuzha and Kollam, where these industries are highly concentrated.

It is found that in all the districts employment in the tertiary sector increased over the years 1981-91.The magnitude of the increase ranged from 0.61 percentage point in Alappuzha to 10 percentage point in Kozhikode.

In the light of the above observations it is concluded that Kerala has a diversified and developed employment structure. At the same time there has also been a sectoral shift of rural women workers from the primary to non-agricultural sectors. This is infact the central point around which the first hypothesis of the study has been built.

8.1.1 The Determinants of Diversification at the Regional Level

The factors that are prominent in determining the rural female participation is constituted by variables that are clear indicators of development rather than distress. This hypothesis of the study is also found true after a careful screening of the results of the factor analysis. The four major factors identified behind the process of diversification of rural females are general economic development, social and familial set-up, demographic factors and commercialisation.

The variables got included under the first factor general economic development in the census year 2001 are Percentage of Area under Non-Agricultural Use (PANAU), Share of Non-Agricultural sector in the Net Domestic Product (SNANDP), Net Domestic Product (NDP) and Percentage of Urban Population (PUPOP). For 1991 infra structure development index (IDIND) and DENSITY are also included under the first factor. In 1981, however, the focus is more on social rather than economic development as far as the first factor is concerned. Still economic development is by no means inconsequential as it gets included as the second factor in this year.

The rise in the percentage of area under non-agricultural use and increased share of non-agricultural sector in NDP are significant in the sense that they give better opportunities and easy accessibility to non-agricultural employment for rural women. Like wise, the quality and quantity of infra structure and high population density in the area lower the transaction costs for marketing products and greater availability of inputs at lower costs needed for non- agricultural activities. The factor economic development thus explains 37.84 per cent of the variance of the standardised variable PRFNAW in 2001 and 36.84 in 1991. In 1981 also 22.67 per cent of the variance is explained by this factor, though it is only a factor that is second in importance.

The second factor identified is the social and familial set-up, which is revealed by the variables Average Family Size (AFSIZE), Male Work Participation Rates (MWPR) and Percentage of Below Six Population (PBSPOP). Increased earnings from male members of the family reduces the need of women to engage in economic activities. Similarly the population below six is expected to negatively affect female work participation especially in the non-agricultural sector that necessitates

much of their time to be spent away from home. The factor family set-up as a whole accounts for 16.76 per cent of the variance in 2001 and 18.04 in 1991.

Demographic factors, the third factor, account for 19.01 per cent of the variance in the year 1981 and 16.25 per cent in 2001. This factor is constituted by the variables MWPR, AFSIZE and SEXRATIO. Higher male work participation rates and reduced family size in effect give the women workers freedom to move into urban areas and non-agricultural jobs. The freedom, thus gained, is yet another aspect of development in the case of women workers. Again, a favorable sex ratio is also behind Kerala being considered as a model of development.

The fourth and the last determinant factor of rural female non-agricultural employment takes account of the variables commercialisation-defined by the variables percentage of area under non-agricultural use (PNFC)- and female literacy (PRFLIT) in all the census years. Truly, area under non-agriculture is an indicator of commercialisation. Education also acts as a facilitator in the efforts of the individuals to seek employment outside the primary sector and makes them aware of the new openings available in non-agriculture. Thus, this factor is also another aspect of development in rural areas.

Together all these factors explain 84.5, 82.87 and 85.7 per cent of the variability of the original variables in the years 1981,1991 and 2001.

8.2 Process and Pattern of Diversification in the Study Villages

There exists a diversified employment structure among the rural women in the sample villages with 65.7 per cent of them employed in the

non-agricultural sector. In general they have diversified equally to both the secondary and tertiary sectors. However, there are significant regional differences in the pattern of employment structure and the nature of diversification noticed in the sample villages.

For instance in the villages of Vadavukode the primary sector dominates in providing employment to rural women. In Vazhakulam the workers have diversified to the secondary sector, whereas in Vyttila the tertiary sector attracted more workers. This sectoral diversity among the blocks is found significant at 5 per cent level.

This diversified structure found in the villages is both due to the sectoral shift and due to the choice of the workers. In both these respects also there exists considerable variations among the villages in different blocks.

In the sample 25 per cent male and 35 per cent of female workers are shifted workers. This difference in the proportion of shifted workers by gender is also found statistically significant at 5 per cent level. Of the female workers shifted, 65.9 per cent shifted from the agricultural sector. In all the villages the shift is basically away from the primary sector. But the nature and direction of the shift is different in each block. It is towards the secondary sector in Vazhakulam block and towards the tertiary sector in Vyttila. In Vadavukode both sectors equally absorb the shifted workers.

With regard to the choice of workers 87 per cent of the female new entrants had chosen non-agricultural sector as their sector of activity. In Vadavukode and Vazhakulam blocks secondary sector was chosen by the new entrants and in Vyttila the choice was for the tertiary sector.

Another way of diversification noted in the survey was the preoccupation of women workers in multiple activities in different sectors. Thus 41.9 per cent of the workers in the sample are engaged in at least one more activity. Fifty per cent of these workers had their principal activity in the primary sector and it was found that it is the women workers in the primary sector who are more in need of a supplementary activity.

The women workers in Vadavukode diversified to other sectors due to the nonavailability of work in the agricultural sector, rather than their unwillingness to be employed in agriculture. Diversification in Vazhakulam is due to the starting of household and non-household industries, which gives a more or less regular employment and income. In Vyttila women workers are found to diversify even to casual jobs in the tertiary sector, travelling more distances on this account to urban and semi-urban areas. Here also there exists limited opportunities in the agricultural sector. This differential nature validates our third hypothesis that there is diversity in the process of diversification itself in the villages. We can better explain these diverse patterns by placing the villages as belonging to 'different stages of diversification.' The nature of shift in the villages also can be cited as evidence for the prevalence of different stages in the process of diversification in the district.

Accordingly the villages in Vadavukode are suggested to be in the initial stage of diversification. In this stage it is the primary sector that still employs a higher proportion of women population. The activities of those employed are also mostly home-based, produced and sold within the locality. They include activities which have production linkage with agriculture like crop and food processing, manufacturing of confectioneries etc, bamboo workers, book binding, garment making and so on. There is little rural urban link for these activities in the sense that workers show

reluctance to commute more distance. Infra-structural facilities are also not conducive to enable easy transportation. The result is that even workers who are engaged in the secondary and tertiary sector lean on the primary sector for supplementing their income.

The villages in Vazhakulam block are in the second stage of diversification where there is a mix of two situations. Here women undertake activities, which have linkages with agriculture and at the same time they are also found employed in many small and medium size firms that are located in and around the block boundaries. The proportion of women employed in the primary sector is lower than in the villages of Vadavukode. Again there is fairly good infra-structural development that provides better accessibility to urban and semi-urban areas and jobs located in the mini industrial estates in the block.

In Vyttila the villages seem to be in the third stage of diversification, characterised by increased rural-urban links, transportation facilities and labour mobility. Though the tertiary sector dominates in providing employment, many a women are also engaged in the primary sector due to the prevalence of the fishing business. But the sector has developed to be of a commercial nature and only a few women in prone peeling are found to be at a disadvantage. Women in the village are willing to commute long distances and the barriers between rural and urban areas are fast disappearing. The fisher women completely avoid the middlemen from trading and directly sell their product in the city markets and far away places. The younger generation avoids this sector and gets engaged in tertiary activities as shop assistants, screen printers, beauticians, typists, clerks and so on. Single women and those who can avoid family responsibilities are also found to be entering personal services as maids,

housekeepers and home nursing on contract in association with the agencies like Self Employed Women's Association (SEWA).

8.2.1 Determinants of Diversification of Women Workers in the Sample households

The choice of the individuals regarding the nature and extent of diversification was found to depend on individual, familial and job-related variables. While age, age square, experience and experience square are found significant among the variables denoting the individual characteristics, it is the family size and the number of non-agricultural workers that come under the family-related variables. Regularity of employment in terms of the number of days employed and hours worked are of prime importance in the job-related variables. Place of residence was also revealed a significant control variable in the logit estimates. In the discriminant analysis also the main discriminant factors that placed workers in the non-agricultural group are number of non-agricultural members in the family and number of days employed.

8.2.2 Employment status of Diversified Workers

The study has brought out the fact that there is increased casualness among the women workers in the sample villages. Sixty percent of the workers in our sample are employed as casual wage labour. Even if we take the diversified workers alone this is found to be true as 51.84 per cent of those who work in the non-agricultural sectors are casually employed. Sector wise analysis of casual workers also revealed that 57.18 percent of them are employed in the non-agricultural sectors.

Alongwith the sectoral shift we also observed the status shift associated with it. Our conclusion in this regard is that 68.22 per cent of the shifted workers have no change in their status of employment in the sector to which they have shifted. While 76.3 per cent of the casual workers retained their status in the new sector 59 per cent of the self employed and regular employed became casualised after the shift. However there exists statistical evidence as to the dependence between the sector shift and status shift, and this has made us to reject our hypothesis that the two are independent.

8.3 Implications of the Findings

The implications of the present study generate from the basic fact that in our sample the women workers are found increasingly seeking employment outside the agricultural sector, but there do not exist enough opportunities. As a consequence they are, by and large, forced to accept whatever jobs came by in the non-agricultural sectors irrespective of their nature. So in the secondary and tertiary sectors of the economy they are employed as daily wage labour. Due to the absence of protective legislations and other arrangements these workers are often at the mercy of their employers.

At the same time the preference for non-agricultural employment by rural women workers has also accentuated the problems of labour shortage in the primary sector. Non availability of jobs in the desired sector of employment forces these workers to withdraw from the labourforce itself creating a peculiar labour market situation - where there is no competition for employment between the sectors. Viewed in these angles the study has important theoretical and policy implications.

8.3.1 Theoretical Implications

Actually this study got initiated from the Clark-Fisher thesis on sectoral shift. It states that alongwith economic development there is a proportional increase in the total labour force employed in the modern sector, while employment in agriculture declines. This is supposed to be true for women workers also in the long run after an initial fall in the transit stage (Boserup 1970). We now have both macro and micro evidences of increased participation of rural women workers in the non-agricultural activities supporting and upholding these theories.

We then examined the reasons behind the developed employment structure among women in rural Kerala. But they are found similar to those perceived by these early writers only to some extent. The sectoral shift thesis found economic factors like per capita income or output behind the process and pattern of employment diversification. When it came to women workers, Boserup attributed educational and other demographic advantages associated with it. In our inter-district analysis using the secondary data we have also identified both these as important factors. Economic development gets more weightage in our study followed by family set-up, demographic factors and increased commercialisation. However, our own empirical findings from the primary data analysis are different. Here factors ranging from individual and family status to the nature of employment opportunities existing, influence the diversification behaviour of the rural women workers of the sample villages.

Next, the growth of the informal sector employment among women has been a topic of continuing interest among the researchers. Currently called feminisation, casualisation or tertiarisation, attention is drawn towards the status of women workers. Here the basic conclusion that we arrived at is that

there are clear indications of a decline in the employment status of rural women workers in Kerala despite the sectoral shift. In the official estimates, this change in the status of women is manifested in the form of an increase in the proportion of marginal workers and non-workers. At the same time our own survey has indicated that there has not occurred any improvement in the employment status for even those women workers in the sample who have shifted their sector of employment. The increased departure of women from paid employment in official statistics and the nature of casualisation reflected in the primary survey raise doubt as to the much -lauded relative advantage that Kerala is said to be having on matters of female literacy, reduced fertility and infant mortality.

Another theoretical element that can be visualised in this context is the theory of "non- competing groups". This theory has had its origin in the writings of Longfeild, Mill and Cairnes. Later on Chapman (1917) developed it so as to state that in a labour market, the whole population will not compete for all the jobs, but competition is confined to a series of heterogeneous occupations and between them "there is less or sometimes no competition". The gradual withdrawal of women from the labour market or movement even from the 'margins' suggests such a group in existence in the state. A related study by Varma (1993) on occupational mobility has proved the same point in an urban area of Calicut City. The attitude of preference of rural women workers in the state to either being employed in non-agricultural jobs or to be unemployed for the time being is by no means an index of integration to the process of development. The supply of labour to each sector is found to be a function of recruitment within itself. The slow withdrawal from the labour market and the consequent inaction unless and until an emergency crops up in their life cycle is a cause of concern. This has necessitated us to put forward the case of reordering development so that it may be acceptable to women

rather than making efforts to integrate them to the on-going process or to prevent marginalisation in the process.

Yet another intriguing query that arises from our empirical work is whether social development is having a role in the diversification decision. Among the variables taken for our analysis those that indicate social development are caste, marital status, education, nature of family and ownership of land. None of these variables were found to be significant in influencing the diversification decision of the women workers. Still their nature of relationship is in accordance with the accepted norms of the society. For instance caste, marital status and ownership of land are negatively associated with diversification, whereas nature of family and education are having positive influence.

8.3.2 Policy Implications

The primary survey reveals that around 60 per cent of the female workforce is engaged in the unorganised sector and is exposed to various forms of exploitation due to the absence of protective legislation or other arrangement. They are also found busy in jobs that are also unskilled in nature like drying of plywood sheets, peeling cashew, prawn, and processing flowers, fruits and vegetables. Prospects of these women graduating from unskilled to semi-skilled and skilled jobs are practically non-existent due to the nonavailability of such jobs rather than the reluctance or unwillingness of these women to get trained. So, in general, the women workers in our sample face a dichotomous and frustrating situation. While on the one hand, socio-economic conditions are pressurising them to seek employment outside the home premises, in the non-agricultural sector, they can find only unskilled and casual jobs that requires more travelling and demands more working hours. The major task, therefore, is to equip them with necessary training and skill

and provide them with better opportunities in the non-agricultural sector within the villages themselves. Then only the sectoral shift will also result in the enhancement of the employment status of these workers.

The hitherto welfare measures introduced by the government like Development of Women and Children in Rural Areas (DWCRA), Integrated Rural Development Programme (IRDP), Jawahar Rozgar Yojana and the like had only been focusing their attention on the income or employment generating aspects. They should be re-oriented and revitalised to introduce an element of status, so that women get more self esteem and recognition in terms of the work being done by them. In the urban areas of the state as a poverty eradicating measure the Kerala Government has already introduced a new scheme under the banner of KUDUMBASREE. In this self-help scheme the risk families are identified so as to form a group and micro credit is raised from within the group itself and made available to the group for various productive activities. Thus there has occurred a shift in the policy objectives itself in the state from that of women's well being to empowerment of women not only politically but also economically. However, this project is yet to be implemented in the villages and it is our earnest proposition that it be implemented at the panchayath level too.

Another fact noticed in our survey is that the sectoral shift of women workers has posed a grave problem to the agricultural sector. The reluctance of workers to do manual jobs on land and the prevalence of high wages among the agricultural labourers has left many a cultivable area fallow or has induced farmers to shift to less labour-intensive crops. The situation is expected to worsen in future as even the high wages fail to attract the young generation to this sector. They prefer and are readily willing to get engaged in low paid casual jobs in the other sectors. Here again it is the employment status that counts more than the wages.

The fall in demand for labour because of high wages and changes in cropping pattern has also reduced the number of working days available to the agricultural workers. In peak seasons they were also found to move in-groups not only to have better bargaining power but also in search of work spots which are located even outside the village. This type of mobility in-group is also seen in the construction sector. In the secondary sector also there is uncertainty among the workers as the work depends on the availability of raw materials and even weather. So much time is spent on transaction cost. If only there exists an agency that links the available jobs with the workers this can be reduced and uncertainty minimised. Here the Panchayaths can serve as a nodal agency that facilitates the employment exchange. If the workers register with the panchayaths and the employers whichever sector they belong to, approach the panchayaths for their needs some order can be brought out of these chaos. Some sort of regularity in the number of days employed and assurances of a regular income will no doubt prompt the workers to such an arrangement. It will also enhance their status from that of an unprotected wage labour to semi-permanent daily labour.

8.4 Conclusion

To conclude, the study has fulfilled all its objectives, viz., highlighting the rural employment structure in Kerala, examining the process, pattern, determinants and consequences of diversification among rural women workers in the sample villages. Being the first of its kind at the micro level in the state it contributes to the available literature in the area enriching the data base that is crucially lacking for devising projects at the village and block-level. There exists ample scope for future research of similar nature in an urban background where the secondary data-sources are hinding towards a reversal of trends from non-agriculture to agriculture.

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