

**Labour Mobility in Rural Areas:
A village-level study**

R. Mahesh

**Discussion Paper No. 48
2002**

**Kerala Research Programme on Local Level Development
Centre for Development Studies
Thiruvananthapuram**

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English
Discussion Paper

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First published 2002

Editorial Board: Prof. P. R. Gopinathan Nair, H. Shaji

Printed at:

Kerala Research Programme on Local Level Development

Published by:

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Kerala Research Programme on Local Level Development,

Centre for Development Studies,

Prasanth Nagar, Ulloor,

Thiruvananthapuram 695 011

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www.krpcds.org

Cover Design: Defacto Creations

ISBN No: 81-87621-50-8

Price: Rs 40
US\$ 5

KRPLLD

2002

0650

ENG

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Labour Mobility in Rural Areas: A village-level study

R. Mahesh*

I. Introduction

Background of the study

The agricultural sector in Kerala has been undergoing a structural transformation since the 1970s with large-scale shift of cultivation taking place from seasonal and annual food crops to perennial cash crops. The area under cultivation of rice, the staple food of the people of Kerala, has declined by about 50 percent in the past two decades. Large tracts of wetland used earlier for growing rice and vegetables have been converted to garden lands for growing tree crops and for non-agricultural purposes. In the dry land region, seasonal food crops such as tapioca, pulses, and tubers have given place to perennial cash crops - coconut, rubber, and pepper being the most important among them. Vast areas earlier under multiple crop systems are now covered by the mono-crop system, thus reducing the degree of crop diversity in the region. Except plantation crops like rubber, tea, and cardamom, most of the cultivation in Kerala is now carried out in small homestead farms scattered all over the State. In fact, more than 85 percent of the holdings in the State are of less than half a hectare in size. With increase in population and given the fixity of land available for extending cultivation, the holdings continue to get increasingly sub-divided.

In the traditional system of agriculture in which land ownership was in the hands of a privileged minority, each land-owning family had several attached households, which supplied the male and the female labour required for its agricultural operations. In addition to providing labour for routine operations, these households also arranged for additional labour to meet the peak demand at times of sowing and harvesting of the landlords' farms. This system worked efficiently and was advantageous to both the cultivator and the labourers. With the implementation of land reforms, ownership of farms passed into the hands of cultivating tenants. The traditional farming system, under which farm labour used to be supplied by attached labour households, broke down; the cultivator now has to go in search of casual labourers for each farm operation. Getting suitable farm hands in time for the various farm operations has become a problem particularly for smallholders, especially those engaged in rice cultivation. Many cultivators feel that the ruling wage rates in the rural sector are

ACKNOWLEDGEMENTS: *This study was made possible by a grant from the Kerala Research Programme for Local Level Development. I am deeply indebted to Dr K. Narayanan Nair, Programme Co-ordinator, KRPLLD, who has been a source of strength to me in carrying out the study. I have greatly benefited from his insightful suggestions during the course of the study. I am grateful to Prof. P. R. Gopinathan Nair, who has helped me with valuable advice at every stage of the work, especially in formulating the analytical framework of the study. I should also thank Dr K. Nagaraj for his helpful suggestions during the course of the work. I am deeply indebted to Prof. N. Krishnaji for his valuable suggestions on an earlier version of this paper. The opinions expressed in the study are my own, and the responsibility for any errors that remain is entirely mine.*

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exorbitantly high. Labour being one of the principal inputs in crop production, farmers shift to crops requiring lower labour input.

While cultivators experience shortage of farm hands, large-scale unemployment and underemployment exist in rural areas. Results of periodic surveys conducted by various government agencies and the data available with the live registers of employment exchanges indicate that unemployment in the country especially among the educated youth is on the rise. However, these data have their limitations (which are well known) for ascertaining the trends in unemployment. A detailed analysis of data from the National Sample Survey (which is a better source of data on unemployment) shows that despite the growth of population and labour force “rate of unemployment has not really risen, nor has the labour force participation declined significantly” (Visaria and Minhas, 1991). At the same time, these data show a definite pattern in the shift of work force from the agricultural to the non-agricultural sectors. In absolute numbers, new addition to the work force declined sharply in the agricultural sector especially among the female workers whereas a steep rise is observed in the increments in some of the non-agricultural sectors like construction. The trend in Kerala also seems to be in this direction.

The survey report on the socio-economic conditions of rural labour released by the Government of Kerala (1985) contains certain revealing indicators of the shift of rural labour force from the agricultural to the non-agricultural sector. According to the surveys of 1964-‘65 and 1974-‘75, about 42 percent of the rural households were labour households; and the proportion increased to nearly 50 percent by 1983-‘84. At the same time, the percentage of agricultural labour households decreased marginally from 28 percent in 1964-‘65 percent to 27 percent in 1983-‘84 and that of the other rural labour households increased from 14 percent to 23 percent during the same period (Table 1.1).

Table 1.1 Estimated number of agricultural and other labour households in Kerala

Period	Number of households ('000)				
	AL	ORL	RL	Others	Total
1964-‘65	697(28.16)	344(13.90)	1041(42.06)	1434(57.94)	2475(100.00)
1974-‘75	886(27.40)	478(14.78)	1364(42.18)	1870(57.82)	3234(100.00)
1983-‘84	968(27.01)	810(22.60)	1778(49.61)	1806(50.39)	3584(100.00)

Source: ‘Report of the survey on socio-economic conditions of rural labourers’, Department of Economics & Statistics, Government of Kerala. Note: Figures in parenthesis are percentages. AL – Agricultural Labour; ORL – Other Rural Labour; RL – Rural Labour (AL & ORL)

In other words, though large numbers of people are entering into the rural labour force, most of them opt for non-agricultural work. It is possible that some of the agriculture labourers have also shifted to non-agricultural work.

It is seen from the survey results that a sizeable proportion of agricultural labour belongs to the lower social class. Nearly 34 percent of the agricultural labour households belong to Schedule Caste/Tribe including those converted to SC/ST, whereas among the non-agricultural

labour households only 15 percent are of this class. The literacy rate is also low among the agriculture labour households. Thus, most of the agricultural labourers come from the lower socio-economic strata of the society. Over the years the employment opportunities of the rural labour especially of those in the agricultural labour sector has considerably declined, as may be seen from Table 1.2.

Table 1.2 Average annual number of days of employment for rural labourers

Period	Agricultural labour		Other rural labour	
	Male	Female	Male	Female
1964-'65	196	164	220	223
1974-'75	168	126	205	170
1983-'84	146	112	197	198

Source: Same as Table 1.1

The comparatively low employment availability in the agricultural sector may be one of the reasons for the fall in work opportunities in this sector. This is strengthened by the finding in the survey that agricultural labourers are unemployed on an average for about three days in a week due to non-availability of work. This was the position in 1983-'84 and there is no reason to believe that in the subsequent years employment opportunities have expanded to such an extent as to absorb all the labour.

Thus, we see that the proportion of agriculture labourers has been decreasing and that there is considerable underemployment among those continuing as agriculture labourer. At the same time, farmers feel that there is non-availability of farm hands to attend to agricultural operations in time. This phenomenon of shortage of farm labour existing side by side with unemployment/under-employment seems to be a paradox. In order to unravel this paradox we have to examine in depth the rural labour situation and the functioning of the rural labour market.

Analysis of the problem

The agricultural sector in Kerala is characterised by several special features, which influence the demand for and the supply of farm labour. On the demand side, the following are the major ones:

(i) **Predominance of smallholdings:** The average size of agricultural holdings in Kerala is relatively small, about 0.31 ha. Moreover, the distribution of holdings is highly skewed with a predominance of smallholdings. In fact, 83 percent of the holdings are less than 0.50 ha. It is possible that in smallholdings family labour is used for some of the agricultural operations, thus reducing the demand for wage labour.

(ii) **Change in crop pattern:** The cropping pattern in Kerala has undergone a significant shift from seasonal food crops to perennial cash crops during the past three decades. Rice and tapioca, the two most important food crops in Kerala, together constituted about 40 percent

of the State's total cropped area, in the 1970s. The proportion has by now dropped to less than 20 percent. On the other hand, the proportion of area under coconut and rubber has increased from 30 percent to 45 percent during this period. The change in crop pattern from seasonal to perennial has important implications for the demand for labour. The seasonal crops create peak labour demand during planting and harvesting seasons. In the intervening period also some labour is required for maintenance of the crops. The demand for labour is thus high but seasonal. The perennial crops generate, however, demand for labour during the initial years only. Once the trees are grown, labour is required only for maintenance and harvest. The labour displaced by reduction in the area of seasonal crops may not be fully absorbed under the new pattern of perennial crop cultivation.

(iii) Segmentation of rural labour markets: There are certain agriculture operations, which require specialised skills (e.g. ploughing, rubber-tapping, and coconut harvesting). Labour shortage is sometimes felt in respect of certain types of skilled labour. This may further be accentuated by incomplete information, difficulties of negotiations, etc. This often leads to a semblance of excess demand for labour, when, in fact, in terms of numbers, no such excess demand exists.

(iv) Change in farming practices: Change in farming practices like replacement of animal power by human or mechanical power, and increased use of fertiliser and plant protection measures also tend to alter labour demand.

The supply-side reasons for decline in the proportion of farm labour are varied and complex.

(i) Traditionally a substantial portion of farm labour, especially female labour, came from the SC/ST communities. Because of the implementation of land reforms, most of the labour households became holders of at least small pieces of land, thus increasing the retention price of labour.

(ii) In earlier times a large number of boys and girls in the rural areas used to work in the farms. It is a known fact that in the younger age groups, participation in economic activity comes into conflict with attendance in schools. The rise in school attendance has withdrawn children and young persons from economic activities.

(iii) Educational status also influences willingness to work. Initially school attendance contributes to a withdrawal of young people from the work force. However, those who complete high school or college education are not available for farm work; they would like to work only in white-collar jobs. This is specially so in the case of women. Consequently, new entry to the farm labour sector has considerably declined.

(iv) Expansion of transport and communication facilities in rural areas has widened the activity space of workers. Expectations of continuous work and higher wages outside the village are attractions drawing rural labour to nearby urban centres. Local farmers also find it difficult to work with such foot-loose labour.

(v) In recent years, significant changes are taking place within the rural labour force as

people respond to structural changes in the economy. The occupational shifts in the labour force consequent on social changes have affected the supply of rural labour, especially farm labour.

One of the special features of the rural labour market is the seasonality of labour demand. There is also heterogeneity in skills as well as in productivity of labour. Most of the cultivators are aware of the quality of workers in their area and would like to employ them on long term rather than on short-term basis. The farmers are unorganised whereas the labourers are organised, formally or informally. In such a situation, wages are determined largely by bargaining. There may, however, be other factors also, that determine rural wages.

Statement of the problem

In Kerala, agricultural land is put to intensive use. The cropping pattern and the intensity of cultivation necessitate the carrying out of farm operations in time. Labour is therefore a major input of agriculture. However, cultivators feel that the cost of labour is high and that despite the high wage rates farm hands are not available in time to carry out the operations. Side by side with non-availability of farm labour, there exist high rates of unemployment and under-employment. There are also indications that rural labour is shifting to non-agricultural work and moving out to urban centres in search of work. The reasons for shortage of farm labour felt in an overall situation of surplus rural labour and the shift in the structure of rural labour force are examined in this study.

Objectives

The objective of the study is to identify the factors leading to shifts in the structure of the rural labour force in the occupational as well as the spatial domain with special reference to the felt shortage of farm labour to carry out routine agriculture operations. The effect of shortage of labour on the agricultural activities will also be assessed.

Arrangement of the report

This report is presented in seven sections. In section 2, the nature of rural labour markets and questions of mobility of labour are briefly discussed based on a survey of the literature. Following this, in Section 3 the conceptual and analytical framework of the problem is examined. Section 4 contains a socio-economic outline of the study area. The analysis of the survey data is presented in Section 5. In Section 6 the survey results are discussed in detail; and the major conclusions of the study are given in Section 7.

2. Rural Labour Market and Labour Mobility: An overview

A free labour market is defined as one in which employees can change jobs or move places whenever they want to, in response to pressures they may be under or desires to increase benefits. Such a labour market implies worker movement from one place to another and/or from one job to another. Mobility is essential to the efficiency of the economy, for, in a dynamic economy some firms, industries, and areas will be declining while others growing rapidly. Here a rational worker will move from slow-growing to rapidly expanding occupations. Before going into the details of labour mobility, it will be worthwhile to examine the functioning of a rural labour market.

Rural labour market

In a free market economy, market forces determine the wage rate and the economy functions at full employment level. However, this neo-classical dictum fails in rural market situations, characterised by imperfections caused by various factors. In this section, a brief discussion is attempted on the functioning of a rural labour market with respect to supply of and demand for labour, and the wage determination process. It is generally believed that in the rural sector there exist high rates of unemployment side by side with high rates of wages. Many scholars have studied rural labour markets and various explanations are offered for this phenomenon.

The major factors that influence labour requirement in an agrarian economy are the distribution of holdings, the crop pattern, the crop intensity, and the technology adopted. The contribution of family labour to the total labour requirement is also important, and this depends on the size of holdings as well as on the educational level and the alternate sources of income available to the cultivator households. Changes in farming practices like replacement of animal power by human or mechanical power, increased use of fertiliser and plant protection measures also expand labour demand. In the context of Kerala, because of land reforms most of the labourers possess some land. In peak seasons, these labourers do have some work in their own land. This work temporarily keeps them away from the labour market. According to Narayana and Nair (1989), “small holders are constrained to inefficient contracts with labour because other mode is not feasible”. At the same time, strong bonds exist among workers even in situations in which they have entered into contracts with different employers. These bonds become stronger if employers are smallholders who find the contracts unenforceable.

The emerging pattern of land use and cropping in the State shows the following features. “(i) The area of wetlands has declined considerably. A portion of the shift of wetland has been conversion for non-agricultural activities. The overall effect of reduction of wetland is decline of area under rice. (ii) Vast areas previously under a multiple-crop system are now covered by a mono-crop system, thus reducing crop diversity. (iii) Perennial cash crops dominate the farm sector” (Mahesh, 1999). This change in crop pattern has important implications for labour demand. The perennial cash crops generate demand for labour during the initial years. Once the trees are grown, the major source of labour demand is for maintenance and

harvesting. The latter task requires skill and specialisation; a segmentation of the labour market ensues. Nair (1997) argues that, in Kerala, there exists a situation of relative labour shortage caused by smallholder tree crop character due to imperfections and segmentation of the rural labour market. Further, there is a tendency now that new jobs are additionally created out of the existing ones leading to enhanced demand for labour.

The demand for labour in rural areas is also influenced by the paying capacity of cultivators in addition to the requirement for labour for different operations, and the wage rate. Alternative sources of income raise the paying capacity of cultivators. The paying capacity of the cultivators is usually measured in terms of per capita income of cultivator families. Misra (1970) found that per capita income directly measures the farmers' paying capacity and that the relationship is significant and positive.

Rural markets are segmented by skills, tasks, and gender and in some cases by locations. There are certain agricultural operations, which require specialised skills, to which entry is restricted. Labour shortage may therefore be felt in respect of certain types of operations. The problem is further accentuated by incomplete information, difficulties in negotiations, and lack of co-ordination. This situation leads to a semblance of excess demand even when there is none, when reckoned in terms of absolute numbers. Another phenomenon of segmentation is the one based on gender discrimination. In farm operations, some of the activities are reserved for female labour and wages for such activists are fixed lower than the male wage rates. Datt (1996) pointed out that, "male and female labourers are separate entities and female bargaining power provides an alternative explanation for gender wage gap."

Krishnan (1991) examined the relationship between wage structure and employment in an agrarian economy in transition, developing the concept of inter-related labour markets. The increased demand for labour in the construction sector leads, according to Krishnan, to wage increase in that sector and wages in other sectors follow suit and relative wage parity gets re-established. The implicit assumption seems to be that while wage rate for skilled workers are endogenously determined they are exogenously determined for other workers in the economy. It has been argued by many that the wage rate for any single occupation is not determined independently of the movements of wage rate in other related occupations in the rural sectors as the labour markets are inter-related.

Among the various explanations offered for agriculture labour market imperfections, a major one is the seasonal character of labour requirement in agriculture. There is a seasonal peaking of workload in the agriculture sector during the harvest season and another to a lesser extent, during the sowing season. This characteristic results in increased demand for labour in certain seasons during which the available labour force would appear insufficient to meet the requirements. Pandya (1997) observed uncertainty in the labour supply during the peak season. Bardhan (1977) writes "the employer is interested, even at the expense of higher wages, in some commitment on the part of labourers regarding the timing and the speed at which a time bound operation like harvesting will be performed.... The explanation has to be in terms of employers' rational decision under uncertainty (about labour supply in peak season) rather than his nutritionally determined decision to minimise cost of required work units."

The supply of labour in the whole economy depends on the following factors: (i) size of population, (ii) age-sex composition, (iii) labour force participation rate, (iv) intensity of work, and (v) quality and skill of workers. In the rural economy, however, the labour supply function is made complex by the interaction of other explicit factors like asset holdings of work force, caste composition, household size, migration, occupational mobility, and wage rate.

One of the other major factors, which influence the supply of labour, is the occupational shift in the labour force consequent on social changes. It may be categorised as ‘inter-generational’ and ‘intra-generational’ mobility. It is widely accepted that workers prefer leisure to additional income at levels at which they receive real wages much higher than subsistence wages. The apparent shortage of labour could therefore be at least in part, to the effect of ‘labour-leisure trade off’, represented by the backward-bending labour supply curve.

The lack of homogeneity of rural labour especially among the unskilled is an important factor affecting wage determination. In the case of unskilled labourers, productivity is highly variable; but wage rates are the same for both the efficient and the inefficient workers. Since employers prefer efficient labourers, there is an excess supply of inefficient labour. In this connection, Krishnan (1991) remarks that cultivators are probably aware of the quality of work of different persons and even could have developed a sort of ranking of workers based on their efficiency. An important implication of Krishnan’s argument is that farmers will employ labour on long-term rather than on short-term basis. In the case of casual labour, an employer does not necessarily gain the benefit of increased efficiency from paying him/her higher wages.

In rural areas farmers who are the employers are unorganised whereas the work force is highly organised either formally or informally and are capable of exercising strong bargaining power. This characteristic of the rural labour market is pointed out by Datt (1996). He goes on to comment that, “even when labourers are not organised in unions, they have a sense of community feeling and hence would not under-cut wages in spite of unemployment”. But there may be exceptions to this general pattern; in some cases, unorganised though farmers are, they exert some control over the demand for labour since they are very much smaller in number than workers (i.e., a case of oligopsony). Here wage determination results from bargaining between these two groups.

There are other factors, which are external to the market condition, that influence the wage. According to Krishnan (1991), it is perhaps institutional and social factors, which are more important in the determination of wage rates than the condition of supply of and demand for labour *per se* in any market. Misra (1970), in his study of the agricultural labour market in Gujarat, found that demand for labour is sufficiently responsive to wage rates along with some variables; but supply of labour seems to be determined outside the system of economic variables in the labour market. Consequently, wage rate determination is also to that extent independent of market conditions. Thus, rural markets are highly complex and diverse; and as such, no single model would explain the complexity of the functioning of these markets.

Labour mobility

Migration and mobility of labour are two topics extensively studied by economists, sociologists, demographers, and geographers. Economists have contributed to the understanding of geographical mobility through the development and testing of the human capital model of migration.

Migration models and theories are based mainly on the following general assumptions: (i) all potential migrants have equal information about urban labour market and equal access to urban job; (ii) migrants often look for modern sector jobs; (iii) wages are lower in traditional sectors than in modern sectors; (iv) decision to move is a “once-for-all decision”; and (v) potential migrants are homogenous in respect of skills and attitudes.

One of the oldest models of migration is the Ravenstein (1885) law of migration. Ravenstein made the following propositions: (i) migrants move from areas of low opportunity to areas of high opportunity; i.e. for economic motive; (ii) the choice of destination is regulated by distance; (iii) migration takes place in stages, for example, migrants move from rural to nearby towns and then towards large cities; and (iv) each rural-urban stream produces an urban-rural counter-stream but the former one dominates the latter.

The model based on unlimited supplies of labour for economic development was proposed by Lewis (1954) and later extended by Ranis and Fie (1961). This combined Lewis-Ranis and Fie model is based on a concept of dual economy comprising a subsistence agricultural sector where the marginal productivity of labour is zero and a labour-deficit capitalist sector. Since unlimited labour is available, there is scope for starting new industries and expanding existing ones. The availability of capital would convert surplus manpower into capitalist surplus. The process continues until the labour movement to the capitalist sector disappears. Thus, migration will be an equilibrating mechanism, which transfers labour from the labour-surplus sector to the labour-deficit sector, bringing about equality of wages between the two sectors.

However, this migration of labour force from the subsistence to the capitalist sector is not as simple as visualised in the model. The labourers are very much attached to their lands; further, there are socio-cultural barriers to occupational and geographical mobility. These factors hinder migration of workers; neglect of this factor is the major weakness of the model.

The importance of informal sector as a major source of employment for migrants was noted by Todaro (1969). Some important features of his model are: (i) migration stimulated by rational economic considerations of relative benefits and costs, mostly financial, and psychological; (ii) the decision to migrate depends on expected rural-urban wage differentials and the chance of obtaining employment in the urban markets; (iii) the chance of obtaining an urban job are inversely related to the urban employment rate; and (iv) migration rates in excess of urban job opportunity growth rates are not only possible but rational also, this being so because of the outcome of continued positive urban-rural expected income differentials.

Later in 1970, migration behaviour was developed by Harris and Todaro with “the push-pull” as the major factor. This model describes the difference between rural earnings foregone and expected value of urban income as the driving force behind migration.

In fact, most studies explain migration in terms of wage/income differentials between origin and destination. In their essays on ‘Poverty in India’, Dandekar and Rath (1971) treat rural poverty as a “push” factor. However, there are also other views on the factors leading to migration. Banerji and Kanbur (1981) take the view that family contacts and friends as well as education are important factors behind migration. Another finding by them is that ‘distance’ acts as a proxy for the cost of transportation and psychic costs; since information declines with distance, migration usually falls with distance.

Majumdar’s (1983) view on internal migration is that the labour market is segmented in the sense that, though new workers may find it relatively easy to enter the informal sector, their further progress into the formal sector is restricted. The large difference in earnings between the informal sector and the formal sector together with limited entry into the wage sector creates a labour aristocracy in the urban labour market.

Bardhan and Rudra (1986) in their study conducted in some villages of West Bengal found some significant, though varying evidence of territorial segmentation of the rural labour market and of limited labour mobility even within adjacent territories. Their conclusion was that personal connection between employers and employees, mutual trust, and credit relationships were more important determinants of labour mobility than short-run wage differences. Moreover, they argue that personal knowledge of the employers in relation to work capacity, reliability, and trustworthiness of particular labourers play a crucial role in these connections.

It is viewed in general, that the majority of migrants are ‘pushed’ into the informal sector, which is marginal to formal economic activity, and that they wait to be absorbed into higher paying, and regular wage or salaried employment in the formal sector. Banerji (1986) examined these issues and it was found that there was no great difference in earnings as between formal sector and informal sector employment. He also found that many migrants moved to urban centres specifically to enter the informal sector activities and that they had little thought for searching for formal sector employment, once they entered informal sector activities.

In a detailed study in the Indian Punjab, Oberoi and Manmohan Singh (1983) found that there existed no evidence to indicate that migrants were being disproportionately pushed into low-status occupations on arrival in the city.

Economic theory postulates that workers should be moving from slow-growing to rapidly expanding sectors and there is evidence to show that this does in fact happen. In the words of Banerji (1967), “dislike of agricultural work, ‘to obtain cash’ and “worsening of economic situation” were the most frequent cited reasons for migration.

Skeldon (1990) argues that not only do people change employers, occupations, and industries, but some of them also change their locations. This shift from ‘old home’ to ‘new home’ is

termed migration. Skeldon further writes that, “the movement to ‘stopping places’, around the old and the new homes may be on a regular basis in which case they may be classified as ‘commuting’, or on an irregular basis, in which case they may be termed as a form of ‘temporary movement’. Commuting and other temporary movements make up the activity space of an individual and may be referred to as ‘circulation’. Occupational shifts, migration (long-term residential shift), and circulation (short-term movements) are thus subsets of labour mobility.

Mobility of labour has important implications on the functioning of labour markets. Occupational mobility alters the occupational structure of labour force tilting the availability of workers in certain types of occupations. Absence of large number of men and women to carry on timely farm operations is likely to reduce agricultural production. However, there is no sufficient evidence to show that this really happens.

Labour mobility is closely related to the social and economic changes taking place in the villages. It is a readjustment of the population to change, though it itself reinforces and promotes many aspects of economic and social change. It plays a fundamental catalytic role in the structural changes in the rural sectors that are associated with development.

3. Analytical Framework

Concepts and definitions

Mobility

For the purpose of the study, mobility is defined as the shiftability between jobs, occupations, or locations in response to incentives. Mobility may be horizontal as between similar jobs and occupations, or vertical such as the upward mobility of a worker from casual labourer to a labour contractor. It may also be from one location to another location and from one generation to the succeeding generation.

Labour mobility

In this study, labour mobility is more narrowly defined as a tendency to change occupation or location of work or residence in response to economic incentives. By implication immobility is the tendency to retain one's occupation and place of residence despite economic advantages available elsewhere. Alternatively, mobility (immobility) may be defined as the responsiveness (unresponsiveness) to income differentials between occupations and locations.

Usual activity

The usual activity of a person is determined on the basis of various activities pursued by him/her during a reference period of 365 days, adopting "relatively longer time" criterion.

Location of work

Location of work of a labourer is the geographical area comprising his/her usual "activity space". He/she is considered to move out only if he/she goes to work outside this area. The activity space of different workers may be different.

Rural labourer

A rural labourer is a person living in a rural area and doing manual labour in agricultural or non-agricultural occupations in return for wages/salaries, in either cash or kind or both. Rural labour is classified into: (i) agricultural labour and (ii) other rural labour.

Agricultural labourer

An agricultural labourer is a person who follows one or more of the following agricultural occupations in the capacity of a labourer on hire or on exchange whether paid wholly in cash or kind or partly in cash and partly in kind.

- (a) Farming including cultivation, tillage of soil, etc.
- (b) Dairy farming, rearing of livestock or poultry.
- (c) Any practice performed on a farm as incidental to or in conjunction with farm operations.

Other rural labourer

This category includes all forms of rural labour other than agricultural labour.

Rural labour household

It is defined as a household that has at least one member as rural labourer and receives the major (more than 50 percent) share of its income from wage-employment.

Types of labour mobility

Mobility can take several forms based on locational and occupational characteristics. The four broad types are summarised in the box diagram in Figure 2.1. The columns of the boxes identify locational characteristics of the employment change, and the rows indicate occupational characteristics.

Figure 3.1 Types of Mobility

		Location	
		Same Place	Different Place
Occupation	Same	Category I	Category III
	Different	Category II	Category IV

Category I: Job change with no change in occupation or residence

Category I indicates a type of mobility in which neither the worker's occupation nor residence changes, but the job changes. This category is not taken as mobility in this study.

Category II: Occupational change with no change in residence

This category identifies changes in occupation, which are not accompanied by changes in residence. Most of this type of occupational mobility involves shifts to related occupations.

Category III: Geographic change with no change in occupation

Geographic mobility pertains to movements of workers from a job in one place to the same or similar job in another.

Category IV: Geographic change with change in occupation

These changes represent both geographic and occupational mobility. Here geographic job-related moves are accompanied by changes in occupation.

To limit the focus, this study has confined to categories II, III, and IV only.

Analytical framework

The concept of mobility in its most general sense may be applied to any factor of production (capital, labour, or even land). The focus in this study is, however, on mobility of labour. Labour mobility differs from the mobility of other factors for two reasons. One, while owners of other production inputs or goods can move them, they themselves remaining in the same place (i.e., relative displacement of owner and goods is possible), owners of labour must move along with labour. Thus, there can be absentee landlords but no absentee labour. Secondly, owners of labour have feelings and independent wills, and migratory behaviour is both a response to feelings and exercise of independent wills. Because of this, non-economic considerations are also important in any discussion of labour mobility. Socio-cultural environment, type and place of work, and social status of occupation influence the decisions of labourers as to where they should work and what type of work they should do. Sometimes they may even be willing to work for lower remuneration because of the greater non-monetary rewards that a particular job could give.

If workers are concerned only with maximising their earnings, they would move to places or activities that would earn them the highest income provided they have information on job options and alternative wage rates. Changes in general economic conditions, social and family circumstances, etc., would induce some workers to change employers or occupations or locations. Employers respond to this change by hiring or firing workers or altering or moving operations. Taken together, these actions can generate considerable movement of labour. Here the assumption is that the system is frictionless, but in reality it is not so. Relocation is costly and it takes time; also, it would take time to acquire new skills for changes in occupation. Moreover, a certain amount of risk is involved in shifting. In this context, existence of income differentials need not always lead to mobility. In addition, people may not move every time they find opportunity to earn higher income elsewhere.

In changing occupation or location, the worker need not necessarily be the sole decision-making entity accountable for the action. The decisions are often made jointly by the worker and his/her family, and in this aspect, the move is a “calculated strategy” and not an act of desperation or high optimism.

In some instances, mobility may be partial as in the case of seasonal changes in occupation. Another example of partial mobility is the case of an agricultural labourer who continues as such on a part-time basis and takes up cultivation in a rented piece of land to earn a higher income.

Determinants of mobility

In addition to increased earning, other factors also might influence the degree of mobility. For instance, education, training, and transportation and communication facilities encourage mobility. People are likely to be more mobile to nearby areas than to distant or unknown geographical areas. On the other hand, advanced age, indebtedness, family factors, racial prejudices, unionism, etc., may restrict mobility. Higher unemployment rates in an “origin”

location may “push” the worker to move out. Currently unemployed workers tend to migrate to destinations of lower unemployment rates.

Hypothesis tested

- (i) Improvements in educational facilities in rural areas have contracted the work force in the younger age groups. It has also shifted work-seekers from the primary to the secondary and the tertiary sectors.
- (ii) Urbanisation has reduced work participation of women.
- (iii) Widening of the activity space of rural workers has shifted them beyond the villages of their domicile.
- (iv) Changes in land use and cropping pattern have not shrunk the demand for farm labour; however, the seasonal fluctuations in labour demand have decreased.

Data source

The primary data utilised for the study were collected from two surveys carried out in a rural hamlet. The first which forms the baseline survey was conducted in 1997 by the author for a study of ‘Causes and Consequences of Change in Cropping Pattern’, sponsored by KRPLLD. The second survey was carried out in 1999 in the same area purposively for the present study using the following two methods.

- (i) A survey of sample rural labour households selected at random from the listing schedule of the baseline survey. This was done in two stages: At the first stage, data on the extent of labour mobility and the factors determining mobility were collected from all selected households. At the second stage, an independent half-sample from the original sample was selected and data relating to inter-generational shift was collected. In both cases, the data collection method was personal interview using structured schedules.
- (ii) A set of semi-structured interviews with local farmers and labourers to identify the reasons for the observed labour shortage.

4. Socio-Economic Features of the Study Area

The study area

The study area is a rural hamlet spread over wards 1, 2, and 8 of Pallichal panchayat in Nemom block and is about 8 km from Thiruvananthapuram city. The Mookunni hill on the northern side of the hamlet dominates the landscape. The hill and the surrounding area covering about 150 hectares is government land and the remaining area of about 350 hectares is held by households. In this private land, about 60 hectares are wetland suitable for growing rice.

The hamlet is linked to Thiruvananthapuram city on the north-west, and Balaramapuram and Neyyattinkara towns on the south-east, with a well-developed transport system of road and rail. However, within the hamlet, only village lanes and footpaths link most of the places.

The socio-economic features discussed in the following paragraphs are based on the data collected in the base line survey mentioned earlier.

The hamlet covers an area of about 500 ha. There are about 1800 households with an estimated population of 8000 in the area. Nearly 50 percent of the households belong to Hindu forward communities - mainly Nairs - and another 10 percent belong to Schedule Castes - mainly Pulayas. The remaining 40 percent are households of Muslims and backward communities such as Nadars, Velars, and Ezhavas. There are also a few households belonging to other backward communities.

Rural employment

For the purpose of the study, households have been categorised into three groups based on their main source of income; cultivator households, rural labour households, and other households. All households cultivating at least 50 cents of land irrespective of their main source of income are treated as cultivator households. In the remaining households having at least 50 percent of income derived from rural labour are categorised as rural labour households. The percentage of households in each of the three categories is given in Table 4.1.

Table 4.1 Distribution of households by occupational categories

Category of households	Percentage of households	Percentage of population	Average size of household
Cultivator	16.6	15.85	4.26
Rural labour	50.4	51.55	4.54
Others	33.0	32.60	4.40
All	100.00	100.00	4.45

Source: Base line survey

Though the study area is a hamlet, the number of persons engaged in agriculture and allied activities is seen to be comparatively low. May be due to the proximity with urban centres, quite a few households have members employed in government/quasi-government institutions and engaged in non-agricultural activities. Table 4.2 gives the distribution of the local population according to usual activity.

Table 4.2 Percentage of population according to activity status.

Usual Activity	Percentage of population		
	Male	Female	Total
A. Workforce			
i. Cultivator	4.24	1.37	2.4
ii. Agricultural labour	8.10	5.22	6.60
iii. Other rural labour	15.75	6.60	10.95
iv. Self-employed in unorganised trade, transport & commerce	10.00	--	4.80
v. Organised sector employee	8.38	4.02	6.60
vi. Others	10.00	3.60	6.65
Sub total	56.47	20.81	37.80
B. Employment seekers	5.65	7.54	6.64
C. Outside labour force	37.88	71.65	55.56
D. All	100.00	100.00	100.00

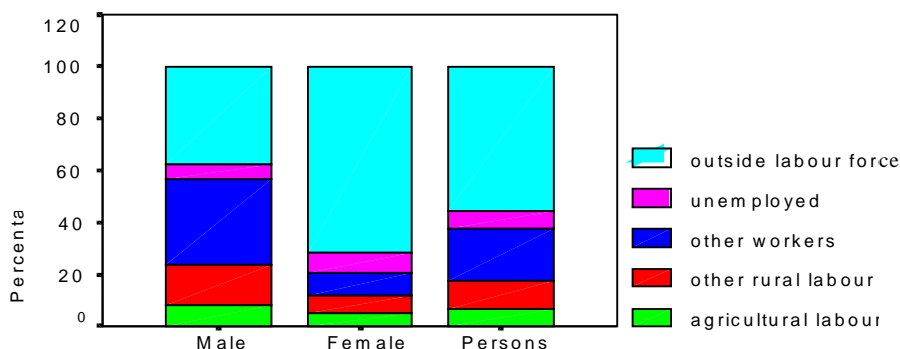
Source: Same as for Table 4.1

It may be seen from Table 4.2 that 44 percent of the population is in the labour force, of which 37 percent are workers, and 6.6 percent are employment seekers. The remaining 56 percent are persons outside the labour force consisting of students, housewives, and persons too young and too old, sick, etc. Among the working population, about 71 percent are males and 29 percent are females. The work participation rate of females is thus very low at 21 percent as against 56 percent for males. Only less than one-fourth of the working population is engaged directly in agriculture and allied activities. Rural labour forms about 54 percent of the rural working population. It is significant that as much as 16 percent of the working population in the hamlet is in the organised sector earning regular wage or salary (Figure 4.1).

Rural labour

Rural labour may broadly be categorised into working mainly in the farm sector and working in the non-agricultural sector. The latter category consists of skilled workers like carpenters, masons, head load workers, rural artisans, and unskilled workers in quarries and construction sites. The activities of the two categories often overlap because of the socio-economic conditions in the rural area. About 38 percent of the rural labour is estimated to be usually

Figure 4.1 Distribution of population by activity status



engaged in agriculture and other activities and may therefore be treated as agricultural labourers. The unskilled casual labourers work in farms, construction sites, etc., or do odd jobs like trading in farm products, transporting household or farm inputs by head load, etc., according to availability of work. Women constitute about 40 percent of the agricultural labour and 30 percent of other rural labour.

When compared to the workers in other sectors most of the agricultural labourers are elderly persons. It is seen that persons below 35 years constitute only 19 percent of the total number of agricultural labourers, whereas nearly half the workers among the other rural labour are below 35. It is an indication that new entry among the rural labour is into the non-agricultural sector. Table 4.3 shows the age distribution of workers in the study area.

Table 4.3 Percentage distribution of workers according to type of activity and age group

Age group (years)	Cultivator	Agriculture labour	Other rural labour	Self-employed in trade, commerce, transport etc.	Regular salaried persons	All
Less than 35	8.0	19.0	50.0	55.0	32.0	38.0
36 – 59	60.0	62.0	45.0	44.0	68.0	54.0
60 & above	32.0	19.0	5.0	1.0	—	8.0
All	100.0	100.0	100.0	100.0	100.0	100.0

Source: Same as for Table 4.1

Cropping pattern

About 40 percent of the households in the study area are directly involved in agriculture either as cultivators and/or as workers. Among the cultivators, nearly 40 percent are dependent mainly on the farm, while others have their main income from sources other than agriculture. Nearly, 70 percent of the land is held by cultivators. The percentage distribution of holdings according to the different categories of households is given in Table 4.4.

Table 4.4 Percentage distribution of households by holding size

Holding size(cents)	Households			
	Cultivator	Rural labour	Others	All
10 and below	—	34.0	14.6	48.6
11-49	—	16.4	18.4	34.8
50-100	8.0	—	—	8.0
101-250	5.8	—	—	5.8
251-500	2.4	—	—	2.4
501 and above	0.4	—	—	0.4
All	16.6	50.4	33.0	100.0
Average size of holding	92.0	11.0	15.0	35.0

Source: Same as for Table 4. 1

About 17 percent of the cultivable area is wetlands; but nearly 60 percent of wetlands have already been converted for cultivation of dry land crops and for non-agricultural purposes. In the dry lands a variety of crops like coconut, arecanut, rubber, pepper, banana, and tapioca are grown. In the wetlands that remain vegetables, and sometimes pulses, are cultivated. Rubber plantations are mostly seen in the valleys near the Mookunni hill. Recently rubber cultivation has been extended to the main land region also. The present crop pattern in the hamlet is given in Table 4.5.

Table 4.5 Percentage distribution of area according to crops cultivated

Crop	Area
Rice	18.0
Coconut	40.7
Arecanut	0.1
Pepper	1.5
Banana	4.3
Tapioca	12.4
Tubers & vegetables	1.6
Rubber	38.8
Other tree crops	3.5
Gross cultivated area	120.9
Net cultivated area	100.00

Source: Same as for Table 4.1

Though areas are shown separately for cultivation of each crop in Table 4.5, in the field, cultivation is done in the form of mixed crops. For instance, in most of the plots, a variety of crops like coconut, arecanut, pepper, jack, and mango are grown. Among the tree crops, mono cropping is followed only in the case of rubber. In the converted wet fields, the usual

practice is to grow tapioca or banana in the first instance, and after raising one or two crops, coconut seedlings are planted.

Other economic activities

Apart from agricultural and allied activities, the major occupations in the region are pottery, quarrying, and construction. There are also a few small trading units like teashops, panshops, and provisions shops. The eastern parts of the Mookunni hill are rocky. The increase in construction activity in the Thiruvananthapuram district and the development of approach roads to quarry sites has made quarrying a major activity in this area. In addition to local people, workers from outside the village are employed here.

5. Analysis of Survey Data

For the study of mobility of rural labour, a random sample of 90 rural labour households was selected and data on various aspects of the households and household members that influence work pattern, income, etc., were collected through personal interviews using a structured interview schedule. There were 144 rural labourers in this sample of which 46 were agricultural labourers and the remaining 98 other rural labourers. The survey results are analysed and presented below.

Age-sex composition

About 30 percent of the rural labourers are women. The proportion of females is more or less same in both the categories of workers. The agricultural labourers are in general elderly persons compared to other rural labour. More than two-thirds of the agricultural labourers are in the age group 35 years and above while among the other rural labourers the corresponding proportion is 56 percent. The age composition of the persons in the two categories is given in Table 5.1.

Table 5.1 Age distribution of rural labour (%)

Age group (years)	Agriculture labour			Other rural labour		
	Male	Female	Total	Male	Female	Total
15 – 19	3.0	—	2.2	1.4	—	1.0
20 – 24	6.0	—	4.3	16.0	3.4	12.2
25 – 29	12.0	8.0	10.8	14.5	10.4	13.3
30 – 34	12.0	15.0	13.0	20.3	10.4	17.3
35 – 59	64.0	77.0	67.0	46.4	62.0	51.0
60 & above	3.0	—	2.2	1.4	13.8	5.1
All	100.0	100.0	100.0	100.0	100.0	100.0
No. in sample	33	13	46	69	29	98

Source: Survey data

Educational level

About 17 percent of the rural labourers are illiterate. The proportion of persons completed at least primary level education is about 53 percent. Only about four percent of the rural labourers have completed secondary level education. Between males and females, there is significant difference in educational attainments, women lagging behind men. However, between the categories of agricultural labour and other rural labour, even though the sample data show some difference in educational attainments, the difference is not statistically significant (Table 5.2.) The overall picture that emerges is one of low educational level for both the agriculture labour and other rural labour.

Figure 5.1 Age distribution of rural labour

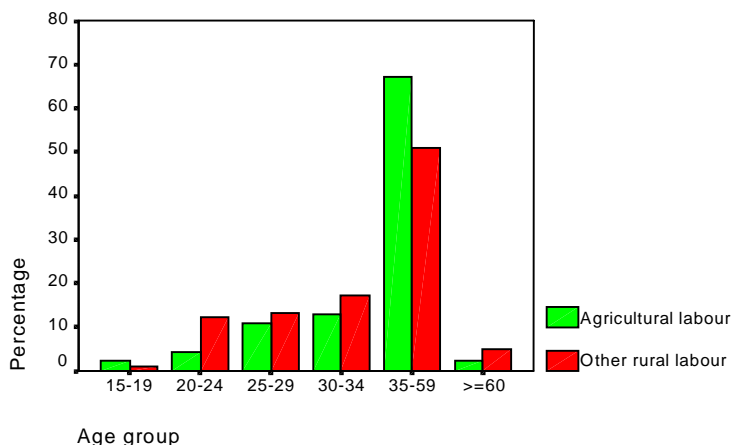


Table 5.2 Distribution of rural labour according to educational level (%)

Educational status	Agriculture labour			Other rural labour			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Illiterate	9.1	23.1	13.1	10.1	37.9	18.4	9.8	33.3	16.7
Literate but below primary	27.3	23.1	26.1	30.1	37.9	32.7	29.4	33.3	30.5
Primary	60.6	46.2	56.5	53.2	24.2	44.9	55.9	31.0	48.6
Secondary	3.0	7.6	4.3	2.8	—	2.0	2.9	2.4	2.8
Above secondary	—	—	—	2.8	—	2.0	2.0	—	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Spatial mobility of labour

The survey data show that 58 percent of the rural labourers frequently move to other places for work. The proportion of non-agricultural labourers moving out is (61 percent) slightly higher than that of agricultural labourers (52 percent). Women labourers also go to other places for work; but their proportion is low (26 percent). The distribution of workers in the sample going to other places for work is presented in the Table 5.3.

Most of these workers shift place of work because sufficient work or work suitable to their skills was reportedly not available in the locality. About 56 percent of the workers reported shortage of sufficient work or suitable work as reason for going to other places in search of work. Only 14 percent of the rural labour reported that they moved out expecting higher income. It is significant to note that nearly 30 percent of the workers moved because they were part of some informal group. The distribution of sample workers by reasons for moving out is given in Table 5.4.

Table 5.3 Distribution of rural labour by mobility (in numbers)

Category	Mobile			All		
	Male	Female	Total	Male	Female	Total
Agriculture labour	20 (61)	4 (21)	24 (52)	33 (100)	13 (100)	46 (100)
Other rural labour	53 (77)	7 (24)	60 (61)	69 (100)	29 (100)	98 (100)
All	73 (72)	11 (26)	84 (58)	102 (100)	42 (100)	144 (100)

Source: Survey data; Note: Figures in parentheses indicate percentage to total number in the group.

Table 5.4 Reasons for out-migration from the village (Percentage of persons reporting)

Reasons	Agriculture labour	Other rural labour	All
Not sufficient work in the village	58	38	44
Skilled work only outside village	13	12	12
Expectation of higher income	8	17	14
Group affinity	21	32	29
Social factors	—	1	1
Other reasons	—	—	—
All	100	100	100
No. of workers in the sample going outside village	24	60	84

Source: Survey data

Information could be collected only from 84 workers. About 71 percent of the reporting workers going to other places for work are daily commuters. Their destination is mainly the nearby urban centres. Because of the nearness of the destination places, the mode of transport is mainly bus or bicycle. Some workers go on foot also. The proportion of persons who stay for a week or more in other places is only 24 percent. It is learnt from local enquiry that some workers go to distant places in North Kerala. They are mostly non-agricultural workers in the construction sector such as masons and carpenters. The periodicity of commutation and the mode of transport used are shown in Table 5.5 and 5.6.

Most of the workers who move out of the village for work have some prior information on the demand for the work in the area they are visiting. About 70 percent of them are attached either with their employers or contractors and get more or less regular work. Then there are a few persons who are part of informal teams and it is this team membership that enables them to find work. The different methods of job search as reported by the workers are given in the Table 5.7.

Table 5.5 Type of commutation of mobile workers in the sample

Periodicity	Agriculture labour	Other rural labour	Total
Daily	20	40	60
Weekly	2	8	10
With higher periodicity	1	9	10
Irregular	1	3	4
All	24	60	84

Source: Survey data

Table 5.6 Usual mode of transport of mobile workers in the sample

Mode of transport	Agriculture labour	Other rural labour	Total
Train	—	5	5
Bus	14	39	53
Cycle	10	3	13
On foot	—	13	13
All	24	60	84

Source: Survey data

Table 5.7 Usual method of job search of mobile workers in the sample

Method	No. of persons	Percentage
Attached with employer	40	48
Attached with contractor	19	23
Part of a team	13	15
Random search	10	12
Self presentation at a labour market centre	2	2
All	84	100

Source: Survey data

By moving out of the village for work, the workers earn more (Table 5.8). The average monthly earning of an agricultural labour moving out is estimated at Rs 1438 as against Rs 966 for a person working in the village. Similarly, the average earning of a non-agricultural labourer is Rs 1602 compared to Rs 1008 for a person working in the village.

Analysis of the earnings shows that a mobile male worker earns on an average Rs 1624 per month as against Rs 1268 by an immobile male worker. The corresponding figures for female workers are Rs 1099 and Rs 735 respectively (Table 5.9). These estimates clearly show that there is significant difference in earnings as between persons moving out and staying back.

Table 5.8 Estimates of average monthly earnings of rural labour (in Rs)

Mobility status	Agricultural labour				Other rural labour			
	Mean	n	S.E	S.D	Mean	n	S.E	S.D
Mobile	1438.33	24	116.06	568.57	1602.00	60	93.55	724.64
Immobile	966.36	22	106.14	497.85	1008.03	38	98.31	606.01
All	1212.61	46	85.68	581.13	1371.68	98	74.51	737.63

Source: Survey data

Note: n = Sample size; S.E = Standard error of estimate; S D = Standard deviation

Table 5.9 Estimates (in Rs) of average monthly earnings of male and female labourers

Category	Mobile			Immobile		
	n	Income	S.E	n	Income	S.E
Male	73	1624	79	19	1268	102
Female	11	1099	178	29	735	81
All	84	1555	74.68	60	993	72.90

Source: Computed from survey data; Note: n =Sample size; S.E = Standard error of estimate.

Since the average incomes are estimates from a sample, it is worthwhile to test whether the differences are statistically significant. For this, the standard errors of the estimates have been calculated. The t-test for comparison of means shows that the difference between the average monthly income of labourers who move out and those who remain in the village is significant. That is to say, by moving out the worker has a definite gain in gross income. The Box-Whisker plots in Figures 5.2 and 5.3 indicate the good degree of reliability of the income estimates.

However, moving out of the village for work entails cost. It is estimated that the average daily expenditure when a person goes to work outside the village is about Rs 47. If this expenditure is also taken into account, the net gain may not be as high as seen from the figures of gross earnings. Still they go out because there may not be any alternative. About 70 percent of the mobile labourers reported that they preferred to work in the village if work were available.

Characteristics of mobile persons

Age is a major factor determining mobility of workers; all else being equal, the greater a person's age the less is he or she likely to move. Among the workers who are mobile, the average age was found to be 34.5 years, whereas in the immobile group the average age was 42.3 years. In the mobile group, the highest age was 56 years and only 25 percent of them were above 40 years. On the other hand, in the immobile group, the highest age was 70 years and about 50 percent of them were more than 40 years old. Summary measures of age distribution of the two groups are given in the Table 5.10. Women are less likely to move than men. The survey showed that nearly 75 percent of the women workers stay in the village while among men the corresponding proportion is about 30 percent.

Figure 5.2 Box-Wihsker plot of average monthly earnings of mobile labourers

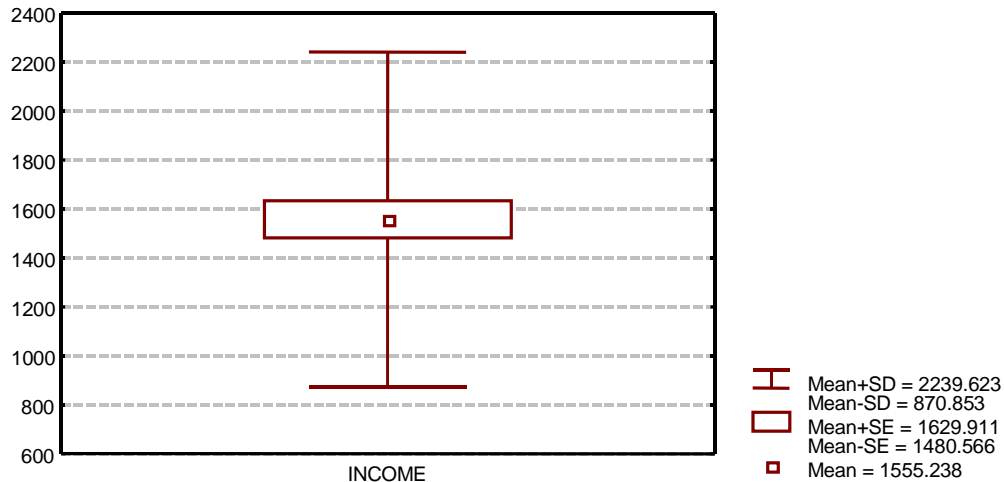


Figure 5.2 Box-Wihsker plot of average monthly earnings of immobile workers

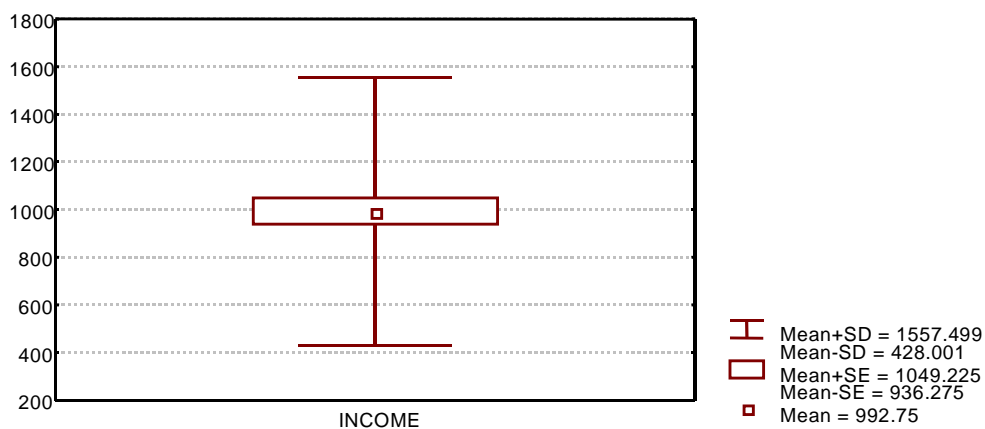


Table 5.10 Age distribution of mobile and immobile workers (in %)

Age group (years)	Mobile	Immobile
Less than 20	1	2
20-24	14	3
25-29	16	8
30-34	18	13
35-59	51	63
60 & above	—	11
All	100	100

Source: Survey data

The higher educational attainments of workers have a positive effect on their willingness to move. However, this factor does not seem to be a major one when the level of education is secondary or below. It is seen from the survey that the educational level of the two categories of workers (mobile and immobile) is approximately of the same pattern and that most of them have only less than secondary level education (Table 5.11).

Table 5.11 Percentage distribution of rural labour by educational level

Educational level	Mobile	Immobile
Illiterate	13	22
Literate below primary	25	38
Primary	56	38
Secondary	4	2
Above secondary	2	—
All	100	100

Source: Survey data.

Occupation seems to be one of the important factors determining the mobility of the worker. Other things being equal, workers in the non-agricultural sector especially in construction, transport and trade and commerce, are more likely to move. Table 5.12 shows that 60 percent of the mobile workers are employed in construction, trade, commerce, and transport while 60 percent of those who stay behind are employed in the agricultural sector.

Occupational shift of rural labour

During the course of their working age, rural labour often shifts their jobs between various occupations. To understand the extent of occupational shift a sub sample of the rural households selected for the survey of geographical mobility was studied in detail. Information

Table. 5.12 Occupational distribution of mobile and immobile workers (%)

Occupation	Mobile	Immobile
Agriculture	27	60
Mining & quarrying	2	7
Transport & communication	13	—
Construction	41	6
Trade & commerce	6	2
Others	11	25
All	100	100

Source: Survey data

on the occupation in which they started on entering the work force and their present occupation along with household data was collected from rural workers. It was found that 38 percent of the workers started their work as agricultural labourers, but in course of time, one-fourth of them shifted to non-agricultural occupations, mainly to construction sector (Table 5.13). A shift is observed also from non-agricultural sector to agricultural, but it is

only nominal. The survey results show that only about 10 percent of the workers who entered work force in the non-agricultural sector have shifted to the agriculture sector. This shift is mainly from young workers who started as headload workers and in course of time took to work in the farms. Because of these adjustments, the proportion of farm hands has come down with the passage of time.

Table 5.13 Occupational shift – percentage of rural labour, sector-wise

First occupation	Present occupation					
	Agri.	Quarry.	Transport & Commun.	Constr.	Others	All
Agriculture	27	7	—	3	1	38
Quarrying	—	9	2	—	—	11
Transport & communications	5	—	4	5	—	14
Construction	2	5	—	20	—	29
Others	—	—	—	2	6	8
All	34	21	4	32	9	100

Source: Survey data

An examination of the primary data indicated that the people of the older generation started work in the agricultural sector as helpers in farm operations and that most of them continued to work in the farms. On the other hand, in the younger generation, people prefer to work in the non-agricultural sector and even those who started work as farm hands later shifted to the non-agricultural sector. To confirm this hypothesis, the data were re-tabulated separately for workers in the younger and the older age groups. The tabulated results are given in Table 5.14. It is found that while about 55 percent of the workers in the elderly age groups had started their work in the agricultural sector only 13 percent had done in the younger age groups. In both categories, the proportion shifted to non-agricultural sector is more or less same. The flow from the non-agricultural sector to the agricultural sector is also approximately of the same magnitude, i.e., about 10 percent. The inference drawn is that while there is low entry in the agricultural sector the magnitude of shift between sectors is approximately the same for workers in all age groups.

Table 5.14 Occupational shift of the young and the elderly labourers

Occupation at the time of starting work	Present occupation					
	Age 35 years and below			Age above 35 years		
	AGR	NAGR	ALL	AGR	NAGR	ALL
AGR	9	4	13	39	16	55
NAGR	9	78	87	6	39	45
ALL	18	82	100	45	55	100

Source: Survey data; Note: AGR = Agriculture; NAGR = Non-Agriculture.

Inter-generational mobility

Nearly four decades ago most of the rural workers were engaged in agriculture or in allied activities such as carpentry and blacksmith and transportation of farm produce. There were also a few persons who worked in local eating-places and were engaged in petty trade. Nevertheless, children of most of these persons are now working in the non-agricultural sector. It is seen from the survey that parents of nearly three-fourths of the present rural workers were agricultural labourers. Among the children of agricultural labourers, only 36 percent are now in the agriculture sector most of the remaining having shifted to the construction sector including quarrying. This does not mean that 64 percent of the children of agricultural labourers have shifted to the non-agricultural sector because some of their children might have taken up occupations other than rural labour. Yet, the fact remains that a large-scale shift has taken place from agriculture to non-agriculture from the past generation to the present generation and that the shift is mainly to activities related to construction. At the same time, the intergenerational shift from non-agriculture to agriculture is insignificant. Table 5.15 indicates the extent of the intergenerational shift.

Table 5.15 Inter-generational shift by industrial activity (percent)

Occupation of parent	Present occupation of the labourer					
	Agriculture	Quarrying	Transport	Construction	Trade	All
Agriculture	27	12	2	25	8	74
Transport	—	2	2	2	—	6
Construction	—	4	—	2	—	6
Trade	7	3	—	3	1	14
All	34	21	4	32	9	100

Source: Survey data

Factors determining spatial mobility

From the foregoing analysis we find that age, sex, educational level, and occupation of a worker are the major factors contributing to spatial mobility. All else being equal, the higher a person's age, the less is he likely to move out. Women are less likely to move out than men. With increase in the level of education the likelihood of moving out rises. The occupation of the worker, whether agricultural or non-agricultural, is also a factor influencing mobility. Having identified the explanatory variables, we move on to get a best fitting and logically reasonable model that would depict the relationship between mobility (the response variable) and the set of explanatory variables. The most common form used in such situations is the linear regression model where the response variable is continuous. But in the instant case, the response variable (that is, mobility status) is dichotomous. In this situation, one of the natural candidates for modelling is the probability of responding to the explanatory variables. This probability could be modelled using a linear function of the explanatory variables. However, before using the model the probability has to be transformed from the range (0, 1) to $(-\infty, \infty)$ and the linear model applied to the transformed variable. The specific form of transformation that is commonly used is the logit transformation, leading to the logistic regression model:

$$\log (p/1-p)= \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \dots + \beta_i C_i$$

where ‘p’ is the expected value of the response variable, which in this model is coded as 1 for the mobile and 0 for the immobile. In other words, ‘p’ is the probability of responding to the explanatory variables. The regression coefficients can be estimated using the method of maximum likelihood.

Specification of the logistic model

It is hypothesised that the dependent variable mobility status is explained by four independent variables i.e., age, sex, education, and occupation. Age is treated as a continuous variable while the other three are considered categorical variables. A code sheet for the variables considered is given in Table 5. 16.

Table 5. 16 Code sheet for the mobility data

Sl. No.	Variable name	Codes/Values
1.	Mobility status	1 = Mobile; 0 = Immobile
2.	Age	Years
3.	Sex	1 = Male; 0 = Female
4.	Education	1 = Primary & above; 0 = Below primary
5.	Occupation	1 = Agricultural labourer; 0 = Non-agricultural labourer

With the above specification, the logit of the logistic regression model can be written as:

$$g(x) = \beta_0 + \beta_1 \cdot \text{Age} + \beta_2 \cdot \text{Sex (1)} + \beta_3 \cdot \text{Education (1)} + \beta_4 \cdot \text{Occupation (1)}$$

where $g(x) = \log(p/1-p)$

The result of the fitted logistic regression model to the mobility data is given in the Table 5. 17.

Table 5. 17 Estimates of the logit coefficients

Variables	β	S. E	Wald	df	Sig	R	Exp β
Age	-0.0630	0.0190	11.0488	1	0.0009	-0.2151	0.9389
Sex(1)	1.8319	0.4322	17.9664	1	0.0000	0.2857	6.2460
Education(1)	-0.3604	0.3934	0.8393	1	0.3596	0.0000	0.6974
Occupation(1)	-0.2034	0.3978	0.2614	1	0.6092	0.0000	0.8160
Constant	1.7708	0.8846	4.0069	1	0.0453	—	—

-2 log likelihood = 156.589

Once the coefficients are estimated, their overall significance is to be tested. This test is performed with the statistic ‘G’ given by $G = -2 \log \text{likelihood}$. Under the hypothesis that the

coefficients are equal to 0, the distribution of ‘G’ is a Chi-Square with k degrees of freedom, where k is the number of variables. In the above case $G = 156.589$ and the degrees of freedom is 4. The G value is significant at 5 percent level. The conclusion is that at least one or perhaps all the coefficients are different from 0. Before concluding any or all of the coefficients are non-zero we may look at the ‘Wald test statistic’, $W = \beta/S.E(\beta)$. Under the hypothesis that an individual coefficient is 0 ‘W’ follows a standard normal distribution. The value of W thus gives an indication of which of the variables in the model may or may not be significant. If we use a critical value of 2, which would lead to an approximate level of significance of 0.05. We would conclude that the variables Age and Sex are significant, while Education and Occupation are not.

Since the aim is to get the best fitting model with minimum number of parameters, the next logical step is to fit a reduced model containing the variables seen to be significant. The estimated values of the reduced model are given in the Table 5.18.

Table 5. 18 Estimates of logit coefficients of the reduced model

Variables	β	S. E	Wald	df	Sig	R	Exp β
Age	-0.0617	0.0186	10.9825	1	0.0009	-0.2143	0.9402
Sex (1)	1.8615	0.4297	18.7697	1	0.0000	0.2928	6.4334
Constant	1.3973	0.7941	3.0964	1	0.0785	—	—

- 2 log likelihood = 157.744

In the reduced model, G with 2 degrees of freedom has higher p value exceeding 0.5. We may conclude that the reduced model as good as the full model. The estimated logit function for mobility is given by the following expression:

$$g(x) = 1.3973 + 1.8615 \cdot \text{Sex (1)} - 0.0617 \cdot \text{Age}$$

The estimated regression when applied to the observed data is found to make 76 percent correct predictions (Table 5.19) indicating good reliability of the model.

Table 5. 19 Classification Table for mobility for 144 persons

Observed	Predicted		Percent correct
	Mobile	Immobile	
Mobile	70	14	83.3
Immobile	20	40	66.7

Note: Overall 76.4 percent correct

Interpretation of the coefficients

In the estimated logistic regression, the coefficient of the variable Sex (1) is 1.8615 and that of Age is -0.0617. These coefficients have a special meaning in assessing the effect of the

variable on mobility. The coefficients are related to the concept of 'odds ratio' denoted by Ψ . When the independent variable is a dichotomous one, odds ratio is defined as the ratio of odds of the outcome being present among individual with $x = 1$, to odds of the outcome being present among individuals with $x = 0$. Under this definition it can be shown that $\Psi = \exp(\beta)$. In the mobility study the coefficient for variable Sex (1), that is male is 1.8615, so that $\Psi = 6.4334$. The interpretation is that mobility occurs 6.4 times as often among men compared to women in the study population.

In the case of continuous independent variable, the coefficient gives the change in log odds for an increase of 1 unit in the variable. In the case of age, the value of 1 may not be relevant in assessing mobility. It seems a change of five years might be more meaningful. In that case the odd ratio $\Psi(5) = \exp(5\beta)$. For the variable age the coefficient is -0.0617, so that the odds ratio is $\exp(-0.3085) = 0.7345$. This indicates that for every five years in age the frequency of movement decreases by 27 percent.

6. Mobility and Shortage of Labour

The analysis made in the preceding sections has thrown light on the phenomenon of felt shortage of labour for farm operations on the one hand and the continued existence of unemployment on the other hand in the rural sector. The study is carried out in a micro setting to obtain in-depth understanding of the various socio-economic factors contributing to the evolution of the phenomenon. The quantitative analysis was supplemented by semi-structured interviews and discussions with local people with a view to understanding the reality behind the observed characteristics. In these enquiries, an attempt has been made to approach the problem from the demand side as well as from the supply side in order to assess the mismatch between the two.

To the question why there is shortage of farm labour, the intuitive answer is that sufficient number of agricultural labourers is not available to meet the demand in the locality. The survey data present, however, a different picture. It is true that there exists a mismatch between the demand for and the supply of labour and that the reasons for this phenomenon are to be searched among both economic and non-economic factors.

The study area has about 350 hectares of private land of which 17 percent are rice fields. Nearly two-thirds of these rice fields have been now converted for other crops or to other uses. In the dry land region where miscellaneous tree crops had existed about three decades ago, commercial cash crops like coconut, arecanut, rubber, and pepper are grown. In fact, nearly annual and perennial crops now cover 90 percent of the total cultivated area. In the traditional rice-based cultivation, the demand for labour was mainly for farm operations related to rice. In the dry land region tapioca used to be cultivated in some places, but the labour demand for operations related to tapioca cultivation was low. There was therefore high labour demand during the planting and harvesting seasons of rice and in the intervening months, most of the agricultural labourers remained either unemployed or underemployed. In the changed farming system with dominance of cash crops, the pattern of labour demand has altered. For cash crops like coconut and rubber, labour requirement is high in the initial stages; once the crops start yielding, labour is required only for maintenance and harvesting. However, for annual crops like banana and plantain, which are now extensively cultivated, labour and care are needed almost throughout the life of the plants. Thus, because of intensive cultivation in the dry land region, the overall labour demand has slightly expanded, and seasonal variation has decreased. There are, however, two associated outcomes in this changed pattern. With the change in the farming system, labour became more specialised in specific activities. Agriculture labourers of the older generation were able to attend to all items of farm operations including maintenance of draught animals. Secondly, in the market-oriented cropping system demand for female labour has considerably diminished. Mainly male workers attend agricultural operations in the converted rice fields and garden lands.

The supply of labour for farm operations is to be seen against this background. The survey figures show that 17.5 percent of the working population in the village are agricultural labourers. In terms of number, their strength is estimated at about 525, while the cultivated

area demanding their services is only 350 hectares. This works out to 1.50 workers per hectare as against 0.95 for the State as a whole. Since the supply of labour far exceeds the demand, in the normal course there should not be any difficulty in getting labourers for agricultural operations. Yet, farmers feel that they are not getting labour in time. In the survey about 75 percent of the cultivators reported that they had trouble in getting timely labour, though for half of them it was only seasonal. This difficulty is experienced by all categories of farmers irrespective of the size of their holding (Table 6.1).

Table 6.1 Shortage of farm labour experienced by cultivators

Size of farms (acres)	Percentage of cultivators experiencing difficulty in getting labour		Percentage of cultivators not experiencing difficulty in getting labour	All	No. of cultivators reported
	Seasonally	Always			
>1	45	30	25	100	40
1 – 2.5	34	45	21	100	29
Above 2.5	29	42	29	100	14
All size	39	36	25	100	83

Source: Baseline survey

The felt shortage may be the consequence of the strategy adopted by the rural labourers for their survival in the face of underemployment and uncertainty. In the changing socio-economic conditions, rural labour has extensive information on job options and alternative wage rates; they are therefore able to assess the opportunity cost of remaining in particular occupations and places. In such a situation, some workers find it advantageous to change employers, occupations, geographical locations, or their combinations. The employers respond to this situation by hiring in or retrenching workers or changing existing facilities. The combined effect of the action taken by the workers and the employers generate mobility of labour from place to place, and from job to job or both. The central focus of discussion in this section is on such mobility of rural labour. The main types of shifts are (i) shift from agricultural to non-agricultural operations, (ii) increased casualisation of labour, and (iii) spatial movements.

Occupational shift

In the traditional rice-based agricultural system, land was in the hands of a few households and each cultivator family had one or two attached labour households, which provided male and female labour for its agricultural operations. In addition to providing labour for routine operations, the attached labourers arranged additional labour to meet the peak demand at the times of sowing and harvesting. In this system, there were personal bonds between employers and employees; and the employers' knowledge of work capacity, reliability, and trustworthiness of individual employees played a crucial role in their relationships. With the fragmentation of holdings and the change in the farming system, these relations weakened and led to uncertainty in employment; the worker has now to adapt himself to the changed circumstances.

An average agricultural labourer of the present day is an elderly male worker above 40 years of age. In fact, about one-half of the agricultural labourers in the village are above 40 years old. The main reason for the existence of such a large number of elderly persons is the fall in the rate of entry of young workers in the agricultural sector. In earlier times a large number of young people in the rural areas worked for wages in the agricultural sector. However, with the spread of school education, young people continue for a longer time in the educational system. Most of the young persons entering the work force after schooling opt for work in the non-agricultural sector. Even those who start work in the agricultural sector as labourers switch over later to the non-agricultural sector. It was found from the survey that among rural labourers, about 38 percent started work as agricultural labourers; and in course of time, many of them have shifted to non-agricultural sector, mainly for construction work. Youngsters who have passed high school education are hesitant to take up manual work, even if they do not have any gainful work. Nor do parents like to send their children for manual work after providing them with high school education. They feel that they have toiled enough for generations and that at least their children should be freed from the drudgery of manual labour, especially in the agricultural sector. The uncertainty of employment and the decrease in opportunities in the farm sector are also factors inhibiting the entry of young people into the agricultural work force.

In the transformation process that is going on in the rural sector, the occupational structure also is changing. Over a period, occupations themselves have undergone changes and new occupations emerged out of existing ones. Workers prefer to switch on to new occupations since they try to maximise future earnings and minimise risk of unemployment. In the traditional village context, caste system played a vital role in the agrarian sector. The agricultural land was owned by upper caste households and lower caste people performed the so-called 'muddy' operations in the fields. The upper caste people would not do the backbreaking types of work like transplantation and weeding. Whatever be the wage rate, such work was done by lower caste labourers. Then there were certain agricultural operations traditionally done by particular castes. Today this caste-based segmentation of labour is breaking down. For instance, workers belonging to other castes now take up coconut harvesting which was previously the prerogative of a particular caste. At the same time some of the agricultural operations like transplanting and weeding in rice fields which used to be done by the lower caste women are now facing shortage of labour as workers from other community have not turned up to do these types of work.

In the village, women at present constitute about 30 percent of the agricultural work force. In the traditional agricultural system, women had a larger role to play in the farm operations. Certain agricultural operations like transplanting, weeding, and winnowing were solely done by women workers. However, as rice cultivation dwindled, they have no work to perform in the agricultural sector other than pleating of coconut palm leaves. Only a few elderly women are now doing this work, as demand for pleated coconut leaves has also come down. In the present socio-economic set-up in the village, the household members do not like to send their womenfolk for manual work especially in the farm. Women are more involved in looking after household activities and the needs of their school-going children. As a combined result of all these changes, the proportion of women among the agricultural labourers has decreased and the trend is continuing.

Casualisation

In the context of worsening of the agriculture situation, both the employers and the employees are facing an uncertain market. With uncertainty in the prices of agricultural produce, most farmers depend on traders for their orders by keeping their fixed cost low and the size of the work force variable, thus trying to pass the risk to the labour class. This strategy of the farmers has created a situation of uncertainty in the agricultural labour market. The agricultural labourers react to this situation by moving to casual work in other sectors or turning to self-employment. For example, the research team came across instances in which farm workers had taken up jobs of varied types such as digging wells, working as helpers in construction work, taking to petty trade, and gathering fodder. Casualisation of labour is thus a counter strategy adopted by workers to evade risk.

Sometimes the shift may be partial in the sense that only a part of the labour is shifted as in the case of an agricultural labourer taking up a bit of farmland on lease for cultivation of cash crops with a view to increasing earnings and minimising risk. Moreover, opportunities to own small productive assets, particularly land, are valued by workers as asset ownership gives them greater manoeuvrability. Incidentally it is to be pointed out here that the above two aspects, i.e., casualisation of rural labour and partial shift of occupation, make to classification of rural labour into agricultural worker and non-agricultural worker based on usual activity status difficult.

Another strategy seen to be adopted in recent years is the piece rate arrangement of work entered into by a worker team with employers. Piece rates are preferred as they imply less external control and utilisation of effort, skill, and time according to the convenience of team members.

Spatial mobility

Faced with limited job opportunities in the native village a large number of rural labourers go to other places in search of work. In individual cases, the decision to move out of the village is based on a variety of factors; but lack of employment opportunities, combined with uncertainty in getting work, in the native village is a compelling reason.

The survey data show that 52 percent of the agricultural labourers and 61 percent of non-agricultural workers in the study area usually go to other villages/towns for work. As categorisation of labour as agricultural and non-agricultural has not much relevance in the context of increasing casualisation of rural labour we may treat them together as a combined category. In that case, we find that about 58 percent of the rural workers move to other places for work. Infrastructural and institutional development has facilitated the gathering information about job availability, work environment, and access to the place of work thus increasing the ability of rural workers to move. Their activity space has also widened. It is reported that three-fourths of the mobile workers are daily commuters. It is learnt from local enquiry that some of the workers go to distant places and stay there for more than a fortnight for work. These are mostly workers like masons and carpenters, and their assistants working in the construction sector.

Most of these mobile workers obtain some prior information on the availability of work in the places they are moving to. Some of them have established close relationship with employers or contractors at the destinations. The employers also possess enough information about the workability and dependability characteristics of these workers. The workers on their part look upon these employers as providers of sustained job opportunities. The evolution of such a form of employer-employee relationship based on trust, familiarity, and dependability may be regarded as a factor influencing individual decisions for moving out of the village. In addition, some workers are members of informal teams. The team members do the search for work and once the demand is identified, the team approaches the employer or contractor and takes up the work. The arrangement of work in such cases is mostly on piece rate basis. Another form of job search followed by some of the mobile labourers is to present themselves at a labour market centre. When work gangs or work contractors going to other places are in need of additional work force, these persons are taken with them. Most of the workers of this type are unskilled or inexperienced.

It has been noticed that in certain seasons a practice of lifting construction workers from a market centre by truck to the work sites in the morning and back in the evening is in vogue. Wages are distributed at the market centre. Intermediaries who make the arrangements take a percentage of the wages as commission. This system is advantageous to both the employer and the employees, when there is an extra demand for a large number of workers, (for example in concrete mixing) workers are made available to the employer at short notice while the workers get work and save on transportation cost.

About 56 percent of the workers interviewed reported that they habitually move to other places as there was not sufficient work in the local village or as the available work was not suited to their skills. Another 25 percent go to other places, as they are already part of some informal group working in those places. Only 12 percent go in the expectation of higher wages. From discussions with workers it was found that by 'insufficient work' they mean two things: one, non-availability of work or non-availability of regular work and two, uncertainty in getting work even in situation in which some work is available in the village. This situation arises because most of the holdings in the hamlet are very small and are cultivated by the owners themselves. Only 16 percent of the holdings are of size 50 cents or more, and the number of holdings above one acre is less than nine percent. There are only a few holdings of size more than five acres. The large holdings are mostly rubber plantations in which regular workers are employed. This being the situation, hired employment is demanded only in small and medium-sized holdings. The labour requirement in these holdings is not regular. With uncertainty in getting employment in the local area, the workers are forced to choose alternatives to earn a living. This is the main motivation to seek work in other places.

It is interesting to find that most of the workers who usually move out actually prefer to stay back and work in the village itself if sufficient work were available, even at the prevailing wage rates. Only a few move out expecting higher earnings. Individual decision to move out thus depends not only on economic motivations and conditions but on social, institutional, and psychological factors as well. From an economic point of view, workers would move out in response to a difference in economic opportunities between the places in terms of income differentials. But here again the difference in anticipated earnings should be large

enough to compensate for the cost of moving. With the limited information available on the availability of work in the destinations searching for and getting better work also involves cost in terms of money, effort, and time.

From discussions and interactions with rural labour, we found that there are other factors that influence individual decisions to change jobs and places, some of which are discussed below.

- (i) In the changing socio-economic conditions, there exists some inequality of income even among workers in the same locality. Workers often make income comparisons among themselves; the lower income groups feel pangs of relative deprivation. A person may change jobs or go to other places for work in the hope of getting higher incomes and improving his/her relative position in the group. As a particular individual moves, the relative deprivation perceived by other workers may change inducing others also to follow suit, thus creating an outward flow.
- (ii) Family circumstances of the worker are a major factor influencing his/her decision to move. In fact, the decision to move is to some extent a collective one taken by the worker and other members in the family. Marital status of the worker, spouse's employment, presence of school-age children in the family, etc., are factors that influence the tendency to move. Viewed in this respect the decisions about mobility constitute calculated strategy to reduce risk on the part of the entire household of the worker.
- (iii) Usually a worker, who starts work in a new area, out-performs the native worker and so his employer may be willing to rely on him for additional labour required in 'other trades'. Once the worker gets acceptance in the new work place and establishes a relationship with the employer, he may bring workers from his native village. The arrival of new workers in a way confers some benefits to the worker who arrived first. After sometime the new workers may adopt the same strategy and the labour flow maintained.
- (iv) Among the rural labourers, there will always be some mobile labourers and labourers with potential mobility. The experience of workers who had already moved out provides valuable information that reduces the uncertainty of the remaining pool. In these circumstances, the workers with potential mobility respond to the information on opportunities available and change their status by moving or decided not to move. A stock of mobile persons in a village thus leads to an increase in labour flow. Mobility is thus a process of adaptation and dispersion.

Determinants of spatial mobility – Empirical evidence

Given the socio-economic conditions and infrastructural facilities in a village, what are the variables that determine whether a worker is likely to move or not? In order to find answer to this question, information on individual characteristics such as age, sex, education, and occupation of the mobile and immobile workers were collected and analysed. It was found that age and sex are significant determinants, but education and occupation are not.

Age: It is seen from the survey data that, all else being equal, the higher a worker's age, the less is he/she likely to move out for work. There are several underlying reasons. First, older workers have some attachment to local cultivators and look up to them as providers of job opportunities and sources of emergency help; they may even forego higher short-term wage benefits in other places in order to maintain the existing relationship. Second, younger persons may view even small wage-differentials as significant and as having the potential to increase over their working years, whereas older persons nearing retirement are not likely to incur the cost of moving for such short-term wage-differentials. Older persons have higher age-related costs that inhibit mobility. Further the psychic cost of moving increases with age. Older people have stronger roots in the present community and a network of work-place friends, and have domestic affairs to fulfil. These factors increase their tendencies to remain stay put in the village and hence are less likely to move out.

Sex: Sex is found to be a major contributing factor affecting mobility. The fact that the worker is a woman decreases the chance of moving by nearly one-sixth. Most of the worker households are nuclear families with husband, wife, one or two children and an ageing parent. When the male member goes out for work naturally the wife remains in the house taking care of the domestic chores and looking after children and parents. Even if she is a worker, she prefers to work in the locality so that she can have an eye on the household.

Education: Almost none of the rural labourers have education of above secondary level. As far as manual work is concerned, the level of education does not seem to have significant effect on labour productivity. Information on alternative employment opportunities, wage differentials, etc; is diffused among rural workers mainly through personal contact; and for acquiring such information formal education has little role to play. Therefore, level of education does not seem to have significant influence on the spatial mobility of rural labourers.

Occupation: The occupational preference of the worker namely for agricultural or non-agricultural work is not seen to be a predictor of how likely he or she will move. In the increasing tendency of casualisation of labour and frequent switching over between agricultural and non-agricultural occupations the type of occupation has become an irrelevant factor in predicting mobility.

How mobility affects labour supply

It was found from the survey that 52 percent of the agricultural labourers in the study area usually go to other places for work. As has been observed earlier, out of an estimated 525 labourers in the village only 252 are available to work in the locality on a regular basis. The total cultivated area demanding their services is approximately 350 hectares, the number of agricultural labourers available per hectare of cultivated land is approximately 0.72. In view of the fact that nearly 90 percent of the cultivated area is under annual and perennial crops, the labour pool remaining in the village must be adequate to meet the demand for agricultural operations. However, the fact remains that these labourers are mostly elderly persons. One of the consequences of this situation may be that the efficiency of labour has decreased. It is learnt from group discussions that the more efficient among them have more employment, as they are demanded more by farmers. Though labour productivity varies widely with the

workers, there is only one wage rate in the village. While the inefficient workers are unemployed for a greater number of days, they would not under cut wages. The prevalence of uniform wage rates for both efficient and inefficient workers indicates the strength of community feeling among the labourers. The cultivators, therefore, seek to employ only workers with higher efficiency, thus leaving others without sufficient work.

Since the average size of a labour household in the village is 4.5 persons, and most of the mobile labourers are males of the younger age groups, the absence of the male member in household, compels the women to remain in the house to look after domestic work. This reduces the level of participation of women in the agricultural work. Certain types of work like transplanting and weeding, in rice fields are usually attended to by women and it is in these activities that shortage of women workers is keenly felt.

Explanation for labour shortage

It will be seen from the foregoing analysis that despite the mobility of labour from agriculture to non-agriculture and from the village to other places there remain in the village adequate number of workers to attend to the agricultural operations in the village. The combined effect of mobility of labour, low entry of young persons in the agricultural sector, the small family size, and the transformation in the farming sector have, however, reduced the efficiency of agricultural workers and the number of workers with specific skills.

In the emerging pattern of cultivation with the predominance of tree and cash crops, the labour demand is mainly for:

- (i) Raising and maintaining annual and perennial crops;
- (ii) Cultivation of seasonal food crops, mainly rice; and
- (iii) Harvesting.

For raising annual and perennial crops, no difficulty is experienced to get labourers; usually, mobile workers also stay back to attend to this work. For maintenance of these crops, the labour requirement is low and spread throughout the year and labour is available for this type of work too. The real difficulty is in getting labourers for rice cultivation. In the traditional system of rice cultivation, the attached labourers together with members of their families of cultivators used to attend to this work. They also used to arrange additional labour during peak seasons of planting and harvesting. With the fragmentation of holdings, the system has broken down and the cultivator has to search for competent labourers for rice farming. Most of the holdings are very small and their owners can provide work to agriculture labourers only occasionally. Therefore, the contact between the cultivators and the labourers has become weak. The workers do not have adequate information either as to who has work for the day. Therefore, a lot of time and cost is involved in finding employment and in finding enough labourers. This information asymmetry leads to a situation of cultivators complaining of shortage of labour and workers of not getting sufficient work.

In the village context most of the cultivators know in person the individual workers, their capabilities, and their trustworthiness. Whether the worker is efficient or not, the same

ruling wage has to be paid for work. The cultivators therefore prefer to employ those whom they think to be better workers; however, it may be difficult to get the right worker at the right time especially during peak seasons. Sometimes for a small cultivator the labour demand is only for part of the day. No worker will be willing to take up such job unless he is paid a full day's wage. Such situations make the cultivator feel shortage of labour.

From discussions with farmers and workers in the study area, we observe that wage increases are usually triggered by attempts by small and marginal farmers to attract efficient workers during peak seasons. Most of these small farmers have other sources of income and they do not feel the higher wages as an additional burden since they employ labour only for one-time operation. This experience provides an opportunity for the workers to demand increase in wages especially during periods of general price rise. The medium and large farmers do not resort to this manoeuvre but in course of time, they will also have to fall in line by agreeing to pay the higher wages. At the time of increase in wage rates, the cultivators feel that the increase is high and unjustified but it becomes stabilised after sometime and then the feeling would be that the rates are normal till the time another increase occurs.

There is an argument that as wages rise workers feel better off inducing them to work less and spend more on leisure time, thus reducing their availability for work (labour-leisure trade off). However, from the perspective of workers, their purchasing power continuously gets eroded because of rise in prices of consumables. The situation is further aggravated by decrease in the number of days of work and uncertainty about employment. We find substance in this contention when reckoned in terms of real wage rates. Thus, during the past 10-year period the real wages of agricultural labourers increased only by 35 percent (Table 6.2 and Figure 6.1). Even with this increase, their monthly earnings are very low. The survey figures show that the average monthly gross earnings of a male rural labourer who works in the village is only Rs 1268 and that of a labourer who goes for work to other places is Rs 1624. It cannot be therefore said that they abstain from work because of high wage rates. The increase in money wages has not made them so better off as to enable them to forego work in favour of leisure. The fact is that the worker does not get adequate employment and that unemployment is forced on them by circumstances.

Another area in which labour shortage is felt is the harvesting of coconuts. The number of trees has increased steeply due to spread of coconut cultivation not only in dry lands but in converted wetlands as well. Coconut harvesting is traditionally done by workers of a particular caste group in the village. However, new entrants to this traditional job from this group are comparatively low. However, it is seen that some of the workers from other communities are taking to this work; their number remains small and inadequate. Owing to increased demand, the activity space of workers engaged in coconut harvesting has also widened. To compensate for the short supply of workers in the village, cultivators often fetch workers from other places for this operation.

The overall shortage of agricultural labour is not a real but only an apparent phenomenon. The felt shortage is, largely, the result of a situation created by the simultaneous existence of a large number of labourers and small farmers in a village community, on the one hand and the growing heterogeneity of the labour stock and segmentation of the labour market, on the other.

Figure. 6.1 Trend of wage rate of agricultural labourer

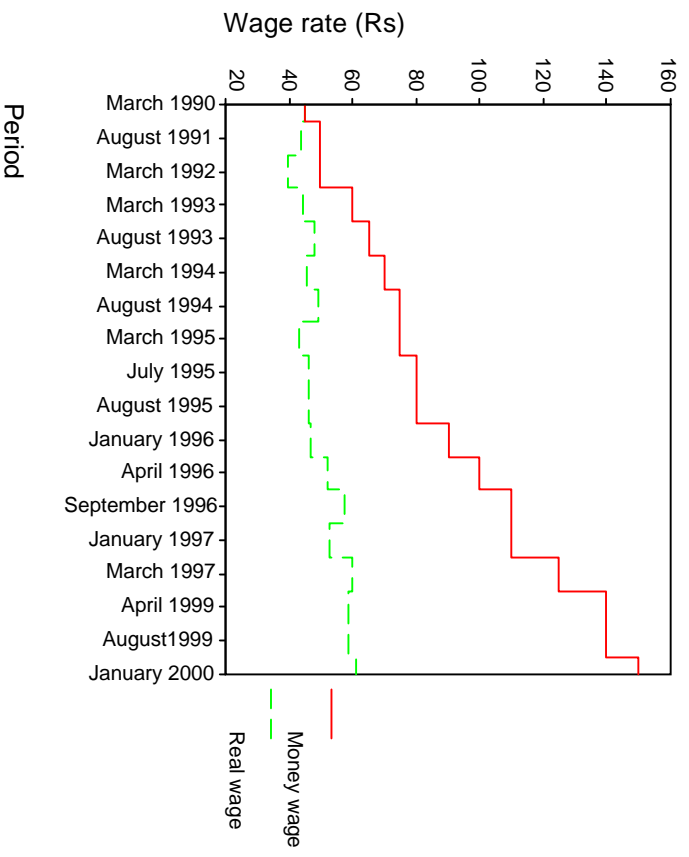


Table 6.2 Money wages and real wages rates of rural labour during 1990- 2000 (in Rs)

Month & year of wage increase	Agriculture labour (male)		Casual labour construction (male)		Month & year of wage increase	Agriculture sd labour (male)		Casual labour in construction	
	Money wage	Real wage	Money wage	Real wage		Money wage	Real wage	Money wage	Real wage
March 1990	45	45.0	45	45.0	August 1995	80	46.2	75	43.3
August 1991	50	44.1	50	44.1	January 1996	90	47.1	90	47.1
March 1992	50	39.8	60	47.7	April 1996	100	52.4	95	49.8
March 1993	60	44.2	60	44.2	September 1996	110	57.6	105	55.0
August 1993	65	47.9	60	44.2	January 1997	110	52.6	115	54.9
March 1994	70	45.7	70	45.7	March 1997	125	59.7	125	59.7
August 1994	75	48.9	70	45.7	April 1999	140	58.7	135	56.7
March 1995	75	43.3	75	43.3	August 1999	140	58.7	145	60.8
July 1995	80	46.2	75	43.3	January 2000	150	60.9	150	60.9

Source: (i) Money wages survey data; (ii) Real wages – money wages deflated by consumer price index for Thiruvananthapuram with base 1970-71= 100.

7. Summary and Conclusion

Summary

One of the salient features of the agricultural sector of Kerala is the intensive use of cultivable land and the predominance of perennial cash crops. Labour is therefore, a major input of agriculture in Kerala. However, the cultivators feel that the cost of labour is high and in spite of the high wage rates, farm hands are not available in time to carry out the operations. Side by side with this alleged non-availability of farm, labour there exists high rates of unemployment and under-employment in rural areas. The census figures and the various surveys conducted by government agencies also indicate shrinkage in the proportion of agricultural labourers and the existence of large-scale unemployment among them. There are also indications that the rural labour is shifting to non-agricultural work and moving out to urban centres in search of work. The reasons for the shortage of farm labour and the shift in the structure of rural labour force are the subject of this study.

A free market economy postulates that, market forces determine the wage rate and that the economy always functions at full employment level. However, this neo-classical analysis fails in the rural market situation, which is characterised by market imperfections caused by various factors. A review of the relevant literature on the functioning of labour markets indicates that the major factors that influence the labour requirement in an agrarian economy are size distribution of holdings, the crop patterns, crop intensity, farming technology in use, and the contribution of family labour to total labour requirement. The supply of labour in the economy depends on the following factors, (i) size of population, (ii) age-sex composition, (iii) labour force participation rate, (iv) intensity of work, and (v) quality and skill of workers. In the rural economy, however, the labour supply function is made complex by the interaction of other explicit factors like asset holdings of work force, caste composition, household size, spatial and occupational mobility, segmentation, seasonality, and wage rate: The focus of the study is the impact of the mobility of rural labour on supply of farm labour.

In this study, labour mobility is defined as the tendency of workers to change occupation or location of work or both in response to incentives. Mobility alters the structure of the labour force in an area tilting the availability of workers for certain types of occupations.

In order to study mobility and its impact on availability of labour, primary data from two surveys carried out in a hamlet have been used. The results of the analysis of survey data were supplemented by a set of semi-structured interviews with the local population.

The study area is a typical hamlet in a sub-urban panchayat. Majority of the agricultural holdings in the hamlet are small and marginal. Cultivation is dominated by annual and perennial cash crops. Large-scale conversion of rice lands for cultivation of cash crops and for non-agricultural purposes has taken place. Though rice cultivation has dwindled, cultivation in the dry lands and in the converted wetlands is being carried out intensively. More than half the working population in the village consists of rural labourers. Apart from agriculture and allied activities, there is very little economic activity in the hamlet. As a result, a large number

of workers go to other places in search of work. The development of infrastructural facilities such as roads facilitates daily commutation of manual workers to nearby urban centres.

Main findings

- (i) In the altered farming system in the village, cultivation of rice has dwindled and intensive cultivation is carried in the dry land region and in the converted wetlands. Annual and perennial cash crops have taken the place of seasonal food crops. Consequently, the overall labour demand has slightly expanded, while seasonal variation in demand has decreased.
- (ii) With changes in the farming system, labour has become more specialised in specific activities. The demand for female labour has decreased considerably.
- (iii) The total supply of labour in the village exceeds the total requirement. This situation has led to uncertainty in employment and workers adapt themselves to the changed circumstance in different ways.
- (iv) Very few young people enter the agricultural workforce. Even those who do, try to shift to non-agricultural operations in course of time. Spread of facilities for school education has delayed entry of young persons to the labour force. The educated youth are hesitant to take up manual work even if they do not find any other gainful occupation.
- (v) In the traditional system, some of the agricultural operations used to be attended by low caste (e.g., Pulaya) people. This practice is now changing. At the same time for some of the agricultural operations in the rice fields, which were previously carried out by low caste women, scarcity of labour is experienced.
- (vi) The job opportunities for women have decreased with decline in the area under rice. Women remaining in the agricultural work force are mostly elderly persons.
- (vii) With change in the socio-economic conditions, fewer women enter the rural work force.
- (viii) Faced with the limited employment opportunities in the village and uncertainty in getting employment, a large number of rural labourers change their occupation or place of work or both.
- (ix) One of the strategies adopted by workers to shift risk is casualisation of labour. Some of the workers partially shift their occupation. For example, an agricultural labourer may take pieces of land on lease for cultivation in order to increase income and minimise risk. Another form of casualisation is the taking up of certain types of work on team basis and on piece rate arrangement.
- (x) More than half the rural labourers in the village go to other places for work. The majority of them work in the non-agricultural sector. Women constitute a minority

among mobile labour. Infrastructural and institutional development in the village have facilitated gathering of information about job availability, work environment, and access to place of work thus increasing their ability to move. Most of the mobile workers are daily commuters.

- (xi) Workers employ various methods for getting work outside the village. Some of the mobile workers have established close relationship with employers or contractors at the destinations. Some others are part of one or other informal worker teams, which helps them in finding employment. A few present themselves at labour market centres and go with worker teams or contractors.
- (xii) The main reason for moving out is the shortage of regular work in the village. It is true that some persons go, as they are already a part of some informal group working outside the village. Only a few persons go in the expectation of higher wages.
- (xiii) Most of the mobile workers prefer to stay and work in the village if regular work were available.
- (xiv) In some cases, workers change jobs or move out under the expectation that thereby their relative income positions among their peer groups would improve.
- (xv) Family circumstances like marital status, spouses' employment, and presence of schooling children in the family are also factors influencing the decision to move.
- (xvi) The stock of mobile workers in the village has a positive effect in increasing the labour outflow.
- (xvii) Other things being equal, age and sex of the workers are the major determinants of mobility. The higher a worker's age the less is he/she likely to move. For woman workers mobility is less than for men.
- (xviii) Most of the workers in the village are literate with a few years of schooling. They are prepared to take up any kind of work suitable to their ability at places other than their native village. Levels of education and occupational preference have little significant influence on mobility.
- (xix) Despite large-scale movement of labour to other places, there is sufficient number of agricultural workers staying back to meet the local demand. Moreover, the mobile workers stay in the village to provide labour during peak seasons. However, most of the workers, who stay behind are elderly persons whose work efficiency is likely to be low. The more efficient among them have enough employment, as they are in greater demand from cultivators.
- (xx) Though labour productivity is highly variable among workers, only one wage rate exists in the village for agricultural workers. Cultivators therefore seek to employ only persons with known higher efficiency, leaving the others under-employed.

- (xxi) Most of the holdings in the village are very small and provide work to agricultural workers only occasionally. The contact between the small cultivators and the labourers has become weak. The workers do not have adequate information as to where and under whom there is work for the day. A lot of time and cost is involved in finding employment, on the part of workers and in finding suitable labourers, on the part of cultivators. This information asymmetry leads to non-clearance of the rural labour market.
- (xxii) Real difficulty is experienced in getting labour for certain kinds of work like coconut harvesting. For such work outside labourers are employed.
- (xxiii) Over the years, agricultural wages have gone up considerably in money terms; but in real terms, the increase is small.

Conclusion

Over the years the land utilisation and crop patterns, as well as the farming system in the village have undergone significant changes. The labour requirement for agriculture has increased to some extent, but not much. The non-agricultural sector in the village provides only limited employment opportunities. The labour demand is not adequate to provide sufficient work to the existing rural labour force in the village. There is thus shortage of employment opportunities and uncertainty of work. This situation has prompted some workers to shift occupations and some to shift places. It is mostly the younger males who go out of the village for work. The workers who stay behind are mostly elderly persons. In terms of work efficiency, the agricultural workers constitute a heterogeneous lot. Efficient workers do not have trouble in getting employment. The felt shortage of labour is the result of the situation created by the simultaneous existence of a large number of labourers on the one side and several small cultivators on the other, as well as wide variability of work efficiency of the agricultural labour stock in the village.

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Editors: K. N. Nair, Srikumar Chattopadhyay