

**Changes in the mode of labour  
due to shift in the land use pattern**

**Omana Cheriyan**

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**Kerala Research Programme on Local Level Development  
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# Changes in the mode of labour due to shift in the land use pattern

Omana Cheriyan

## 1. Introduction

The unique features of Kerala agriculture are predominance of cash crops, homestead system of cultivation, inter-cropping of annual and perennial crops, shrinkage of area under rice crop and dominance of small holders. The fall in area under cultivation of many crops is due mainly to increased cost of production and shortage of farm workers. The land area not cultivated either lies fallow or has been shifted to non-agricultural uses.

During the past three decades the agricultural sector of Kerala has undergone wide-ranging changes in terms of ownership of land, cropping pattern, cultivation practices, productivity and intensity of cultivation. In earlier periods, the choice of cropping pattern was guided by agronomic considerations and consumption needs of farmers, but now it seems that market forces mainly determine the emerging trend. Official figures show that agricultural income in Kerala, which had registered steady growth up to the mid-seventies, began to decline thereafter and widely fluctuated during the 'eighties (Mahesh 1999). This change is attributed mainly to the shift in area from seasonal/annual crops to high-value-yielding perennial cash crops with long gestation periods. By the end of the 'eighties cash crops started generating higher income to the farm sector. Therefore, during the past five years agricultural income has again started rising. This sustainable performance and the traditional cropping pattern of the state are challenged by liberalisation, privatisation, globalisation and opening up of the Indian Economy.

What is the effect of the structural changes in the land-holding pattern in the 1970's with respect to (a) the distribution of households in different size classes (b) the incidence and

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forms of tenancy (c) the size-distribution of operational holdings (d) and the mode of labour in the Kerala economy. According to Nair et al., there are certain contrasts in the pattern of land holding changes in the 1970's vis-a vis that in the 'fifties and' sixties as well as in the inter-state differences in the pattern of land holding structure in the 'seventies which resulted in rapid marginalisation of land holding in most parts of India, due mainly to a disproportionate proliferation of marginal holdings-both ownership and operational (Nair et al. 1990). The change in the distribution of households has been a factor accounting for a decline in the average size of ownership holdings and the change in the structure of land holdings in the 'seventies compared to those of preceding two decades.

The structural changes in land holdings in the 'fifties and the 'sixties as revealed from the various rounds of the NSS may be briefly summarised as follows: (I) The number as well as the proportion of households in the marginal size groups of holdings declined; (II) The number of small holdings increased but their share in total holdings declined. The area under this size group has increased in absolute terms and also as a proportion to total area; (III) In the case of medium-sized holdings, the trend noted was the same as that for small holdings; and (IV) The number as well as the proportion of big and large holdings declined; the area under these holdings also declined both in absolute terms and as a proportion to total area. These trends were observed to be similar in all the states. Decline was noticed in the incidence of tenancy as also in the proportion of landless households.

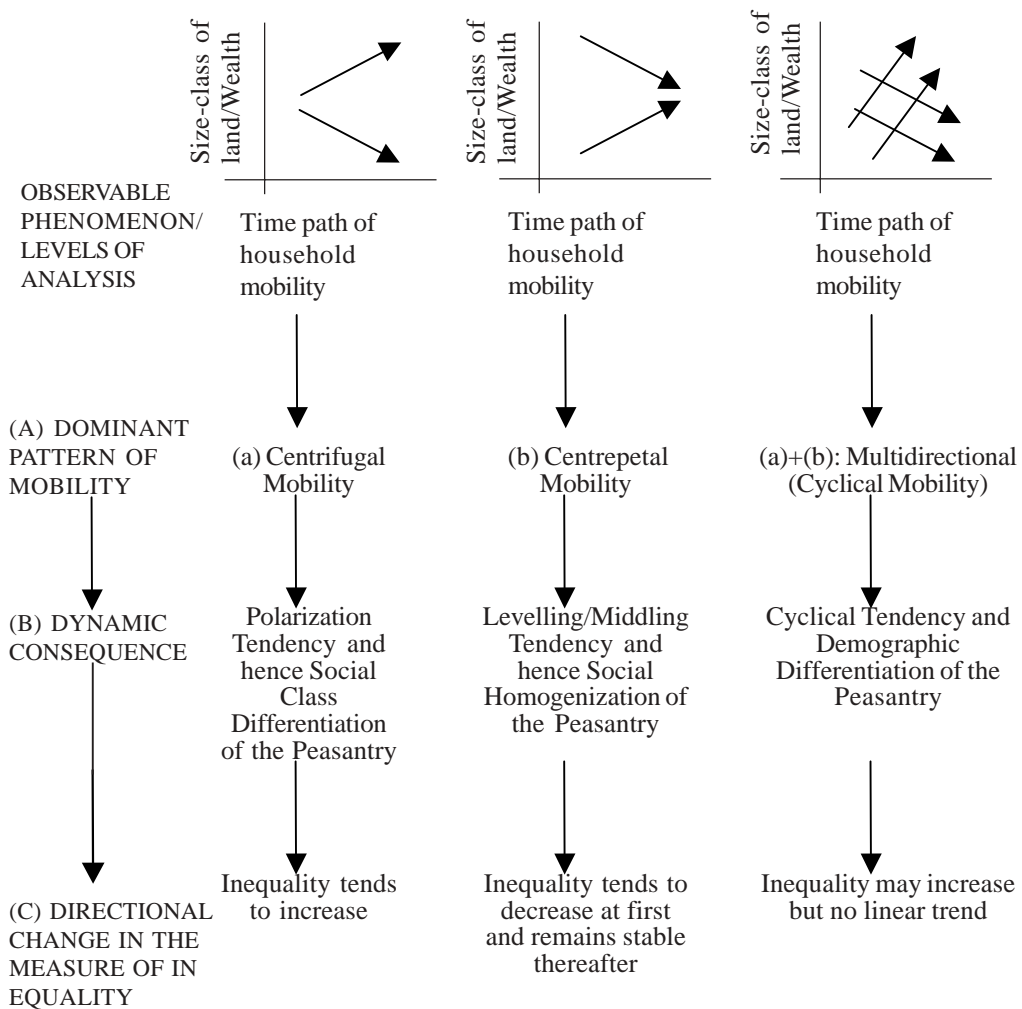
What had been the effect of these changes in the land holding pattern on land distribution? This question has been analysed with the pattern of intra-generational economic mobility of agricultural households as a proximate explanation for change in land distribution. Intra-generational economic mobility is taken to mean the mobility (upward or down ward) of the household with respect to size-class of operated area during the life time of the head of the household. Such an analytical focus for an analysis of land distribution has come from a study of Cain and the dynamic methodology in the studies of the Russian peasant society by A. C. Chayanov and T. Shanin. The empirical literature on peasant economic mobility has been guided by two contrasting approaches namely the orthodox Marxist and neo-populist. Some essential elements of these two approaches are set out in fig. 1.1

Under the orthodox Marxist approach the dominant tendency is for peasant households to move away from the centre of the distribution in both directions (Centrifugal mobility). This has the dynamic consequences of producing a polarization tendency within the peasantry which leads to its social class differentiation and increase in inequality of land/wealth. The orthodox neo-populist approach envisages a contrary pattern in which households at the extremes of the distribution tend to move towards the centre (Centripetal mobility) of the distribution, which in turn is reflected in diminishing degree of inequality. In the neo-populist approach, the pattern of mobility is a combination of centrifugal and centripetal patterns of mobility giving rise to a pattern of multi-directional mobility. Multi-directional mobility has the dynamic consequence of producing neither a polarization nor a middling tendency but only a cyclical tendency within the peasantry. This in turn may lead to an increase in inequality of land or wealth in certain phases of the cyclical movement but no linear trend in inequality.

**Fig. 1.1**

**Two Contrasting Theoretical Approaches to Studying the Dynamics of Peasant Mobility**

1. Orthodox Marxist Approach (Kautsky, Lenin)	(Orthodox Populist Approach) (Chayanov, Shanin)	2. Neo-populist Approach
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The present study is concerned with an analysis of the pattern of mobility of agricultural labourers and marginal farmers underlying the distributional change. A study by Padhi and Nair (1992) reveals that in almost all the states in India, household mobility emerged as the single most important component accounting for the observed change in the average size of the owned land. This seems to suggest that household mobility, across size classes should be an important element in analysing changes in land distribution. To what extent would the redistributive land reforms in Kerala initiated in the 1970s have changed the distribution of land by affecting the pattern of household mobility particularly at the lower end of the land distribution scale?

The term marginal farmers represents farmers owning small plots of land and cultivating parcels of leased-in land with (a) family labour (b) minimum production of output equivalent to his subsistence (c) his social relations determined by kinship, customs and conditions (d) his dependence on the market for selling the produce of the leased-in plot. Agricultural labourers in our context are traditionally-trained, crop-specific labourers displaced from the farm sector due to change in the land use pattern and reduction in area under rice cultivation. These lessees are residual farm workers owning tiny plots of lands, but disliked spatial dislocation and migration to non-farm activities. They come under the lowest size class distribution.

If it is true that the pattern of household mobility has to be an important component in any dynamic analysis of change in land distribution, the essential problem here is that there is no unique one-to-one correspondence between a certain observed change in land distribution and the underlying pattern of household mobility i.e., a particular pattern of distributional change is compatible with a wide variety of underlying pattern of economic mobility, the possibility is in general brought out in fig 1 where an observed increase in inequality is compatible with both centrifugal mobility as well as a more complex pattern of multi-directional mobility. This point would be discussed in greater detail, later.

John Harris discovered that small peasants along with their own family labour, hire outside agricultural workers and that they are not capitalist farmers. (Hariss, 1982). Their subsistence logic and efficient management of farms indicate the Chayanovian theory that family farms have the capacity to engage in production without receiving profit or rent. The co-existence of capitalist and peasant agriculture as demonstrated by John Harris and Ishikawa indicates the possibility of developing an alternative agricultural model of development with high productivity. Vaidyanadhan arrives at the conclusion that Indian peasant households sustain themselves with a combination of farm commercialisation and non-agrarian activities emanating from rural prosperity. (Vaidyanathan, A 1977).

### **Objectives of the study**

The present study has the following major objectives:

1. Analysis of the historical background of vettila (betel) cultivation in Pathanamthitta district and examine the economic viability of this non-traditional activity. The terms and conditions of leasing-in land for vettila cultivation would also be examined.

2. Assessment of the economic viability of a general shift of cultivation of small holders in the area to betel vine.
3. Study of the nature and extent of market for non-traditional items like vettila.
4. Verification of the extent to which commercial production has emerged among agricultural labourers and small farmers in the area.
5. Analysis of the reactions of trade unions to this emerging mode of cultivation by agricultural labourers and marginal farmers.

### **Methodology**

The study is conducted on the basis of an intensive empirical analysis of information about labour use patterns and economics of, non-traditional types of small scale cultivation in a selected area in Pathanamthitta district. For the collection of data field investigations, such as household surveys, interviews with knowledgeable persons in the locality and participatory learning methods, were used.

Information was collected on the following items

- a. Distribution of land holdings owned and operated among agricultural labourers.
- b. Area of wet land leased-out and fallow land.
- c. Land use pattern and Income and Expenditure of farms; and
- d. Employment pattern of agricultural labourers.

### **Participatory Approach RRA/PRA**

This is an alternative to the conventional method of questionnaire and survey successfully used in understanding local processes and social and institutional relations. The methods used range from field-based appraisals to assessment of areas and groups. The approach aims at promotion of interactive learning, shared knowledge and flexible but structured analysis.

It allows local people to discuss and cross-check local conditions. It is a development model as it empowers local people.

In the present study some of the techniques of RRA have been used for data collection. Some of the methods used in the study are local analysis of secondary data, direct observation, transect walk, time line, case studies and linkage diagrams.

### **The study area and its land use pattern**

The study was conducted in Padopattakulanji in Kulanada Panchayat, Ayithil in Mezhuveli Panchayat and Oonnukallu in Chenneerkara Panchayat all in the Pathanamthitta district.

In Pathanamthitta district, the unique pattern of cultivation of leased-in wetlands by agricultural labourers and marginal farmers is widespread. These cultivators grow non-



traditional crops such as vettila (betel), fruits, vegetables, tapioca and flowers. The precipitous decline in the price of rubber has thrown rubber tappers in the area into unemployment. Some of them have, along with other agricultural labourers, ventured into farming on leased-in land.

The investigations began with a farmer's seminar on Dec. 14th, 1999. Forty-two agricultural labourers, who practise leased-in cultivation, in Mezhuveli, Kulanada, and Chenneerkara Panchayats attended the meeting. Presidents and the ward members of the concerned Panchayats and Agricultural Officers of the state government also participated. The meeting extended full support for the study.

## **2. Land-Labour Linkages in Kerala: A review of studies**

Kerala economy was characterised by a higher share of wage labour than in the other states in India at the time it began to embark on a nationally-determined programme of economic development (Kannan, 1998). This was due to the predominance of cash crop cultivation and labour-intensive occupations in the service sector. Comfortable working conditions and high wage rates left the employers with little surplus. Employers could go in for technological change in their production process and, if the attempts were resisted by organised labour militancy, they could migrate to regions outside Kerala where technological changes were not resisted and where lower wage rates prevailed. Labour unions and the state itself had very little power to thwart such decisions. Therefore the dilemma faced by Kerala in the 'sixties and the 'seventies was primarily the following: "halting of technological changes in labour-intensive activities during a period of rising labour cost failed to realise the goal of protecting employment and resulted in the loss of potential output and employment of such changes in the long run."

The distributive issues have been so central to the question of economic development in Kerala and its unique achievements in the spheres of land reform, education, health care and public distribution of food grains by the early 'seventies (UN/CDS 1975). The highly contested nature of distributive issues in a regime of low accumulation has given rise to low per capita income and persistence of high unemployment. But the social development policies of the government and social welfare – basically 'poor relief' programmes resulted in a general decline in the incidence of poverty (Kannan 1998). The inflow of large amounts by way of remittance from Keralites working in Gulf countries enhanced the sphere of circulation in the Kerala economy and expanded its tiny construction industry and related activities. A strongly unionised labour force, factors like the interrelated nature of the labour market (Krishnan 1991) enabled continued rise in wage rates. As the social profile of the younger generation of the labour force changed, social preferences for employment also changed. Younger members in the labour force started opting out of the casual labour market despite higher wage rates. Their preference was for stable employment. Generation of new employment opportunities was low because of the inability of the state to attract new investments and decline in the technologically stagnant labour-intensive occupations. The only sector in which some increase in employment was evident was the service sector. Such a situation produced, since the mid-eighties, a new dilemma for the Kerala economy which may be characterised as under:

An accelerated process of social development taking place in the context of demographic transition resulted in a mismatch between labour supply and labour demand.

The result has been the emergence of a vast reservoir of reasonably educated young, socially conscious labour force and of a technologically stagnant economy surviving on the expansion of the service sector resulting from international remittances.

The social cost of halting technological changes has been extremely high; it could neither protect current employment nor lead to a long-term transformation of such industries/ activities into higher forms of production and output growth (Kannan, 1998). Since the early ' nineties, coinciding with a rapid and large-scale process of liberalisation of the Indian economy, concerted efforts were begun by the state to attract new investment. Kerala also witnessed the emergence of some other favourable factors. The continued inflow of remittances from workers in the Gulf region resulted in a steady growth of bank deposits creating a large pool of loanable funds for investment purposes. The availability of educated and skilled labour has added to the attraction of Kerala as an investment friendly place reversing its earlier image as a labour-problem state. There has been a perceptible drop in the incidence of industrial disputes in the state. Yet Kerala has the state failed to attract new investment. This paradox has placed the state in a poor light. This could lead to increasing labour costs as a part of the consumption of poorer house holds is met from state support either directly or indirectly.

### **Gains of Unionisation and State Intervention**

Unionisation of labour which began in the early ' thirties has been a remarkable achievement of Kerala as it gave workers, especially workers in rural areas, a distinct identity as members of collective organisations. The land reform measures initiated by the state in the late ' fifties and enacted in the late ' sixties, abolished tenancy and curtailed the power of land owners over landless agricultural labourers. Notable achievements of unionisation were fixed hours of work, impersonal, employer-worker relationship, non-wage benefits and loosening of the linkages as between land, labour and credit (Kannan, 1988 and 1992). Other achievements were a sustained increase in wage rates, political support to form labour co-operatives and initiation by the government of a number of labour welfare measures. The benefits from these measures accounted for a little more than one-fifth of the consumption of rural labour households during the early ' eighties (Kannan, 1995).

Widespread unionisation of labour coincided, during the period from the early ' sixties to the mid-eighties, with strong demographic transition and sustained social development that increased labour supply (Rajan, et al. 1993).

### **Wage gain but job loss**

The high profile of labour indicating wage rates and terms of work was also felt in agriculture. During the ' seventies, when rice cultivators introduced mechanisation of agricultural operations, the situation was one of excess labour supply and declining employment opportunities. Rural labour relations became tense throughout the ' seventies in Kerala. In the face of increasing wage cost without a commensurate increase in labour productivity, farmers resorted to a strategy of crop substitution in favour of low-labour-absorbing crops. By the mid-nineties, the area under rice cultivation registered a forty percent decline. The decline in employment due to decline in area, was around thirty-five million man days

between the mid-'seventies and the early 'eighties and around fifty million man-days by the mid-'nineties (Natarajan, 1982). That part of the agricultural sector which cultivated seasonal crops stagnated since the mid-'seventies to the mid' eighties thereby imposing an additional constraint on the enhancement of employment in the economy as a whole (Kannan and Pushpangadan, 1988 and 1990). Labour unions in the organised sector, both public and private, opposed technological changes. Payment of wages to workers even in activities which did not require labour inputs was ensured, during the period subsequent to the introduction of new technology (Kannan, 1998). A similar strategy was also adopted by the 'head-load workers' who emerged during the 'seventies as one of the most powerful unions in Kerala. A similar system was enforced in rice cultivation in the wetland region of Kuttanad. In this case farmers were made to agree to make payments to traditional ploughmen (who did animal ploughing of fields) when tractors were introduced for such ploughing. This perhaps contributed a great deal to an unfavourable image of labour in Kerala especially among prospective investors.

The union strategy which was successful in the initial phase failed to arrest the decline in employment because of (1) insignificant new investment (2) large scale migration of labour-intensive manufactures to places outside Kerala and (3) shift of cultivation to a less-labour-absorbing cropping pattern. The political clout enjoyed by the labour unions enabled them to advocate the case of formation of labour co-operatives as a strategy to prevent sharp declines in employment. Almost all co-operatives were riddled with several problems threatening their survival without government support. The labour unions did not have a long term strategy when faced with a situation of labour displacement. In desperation, they resorted to a short-sighted strategy of protecting 'insiders'. Thus farmers were forced to employ agricultural field labourers from within the locality as opposed to those from 'outside' the locality (Alexander 1975, Tharamangalam 1981). Successful prevention of entry of outsiders made it possible for members to trade their membership for a 'price' that was estimated to be the equivalent of around two year's earnings (Nambiar, 1995). Such a strategy could only benefit those sections of workers who had some critical control over the production process. But there were many others mostly women, who did not have such critical control and they lost in the game (Kannan, 1992).

### **Neither employment nor output growth**

Decline in employment in labour-intensive manufactures and deceleration in that part of the agricultural sector which cultivates seasonal crops as well as the inability of the state to attract new investment in commodity producing sectors were the characteristic features of the Kerala economy during the 'seventies. The primary sector registered negative growth during this period (Table 2.1). The cumulative effect of all these was the emergence of large scale unemployment and underemployment as the most serious socio-economic problem in Kerala. Therefore, on the one side there was excess supply of labour force and on the other, scarcity of labourers was experienced in several sectors.

**Table 2.1 Growth rates of sectoral and aggregate income in Kerala at constant prices**

Sector	Growth rate		
	Period I (1960-61 to 1974-75)	Period II (1975-76 to 1987-88)	Period III (1988-89 to 1995-96)
1. Agg. Income	3.21	2.52	6.85
a. Primary	2.23	-0.33	3.83
a. 1. Agricul	Na	-0.52	3.70
b. Secondary	4.71	2.39	8.14
b.1. Manufrg	Na	0.63	5.74
c. Tertiary	4.24	5.81	8.59
2. Population	2.10	1.56	1.26
3. Per capita	1.11	0.96	5.59
(1)-(2)			

Source: K. P. Kannan, Working Paper No. 284

The overall work participation rate in Kerala declined, the rate of decline being higher for women than for men (Table 2.2). Kerala accounts for only three percent of the population of India (census 2001) and unemployment is the highest in Kerala. During 1999-2000, all-India unemployment rate was 7.29% while it was 20.77% in Kerala (Economic Review, 2003).

**Table 2.2 Labour force and work force participation rates in Kerala, 1961-01**

Year	Male		Female	
	LFPR	WFPR	LFPR	WFPR
1	2	3	4	5
1961	51.00	47.20	52.00	19.70
1971	53.00	45.22	54.02	14.60
1981	56.91	44.89	58.13	16.62
1991	62.24	47.56	62.97	15.90
2001		50.4		15.30

Source: Census Reports

Rural labour households were able, however, to reduce the incidence of their poverty. It was found that the incidence of rural poverty in Kerala may not have spread beyond one-fifth of the households in the late 'eighties (Kannan, 1995). The poverty relief programmes

and the sustained process of social development were made possible by remittances from Kerala labour force working in the Gulf countries. In a survey conducted by the Bureau of Economics and statistics it was revealed that sixty-five percent of the emigrant labour were of rural origin and were unskilled or semiskilled. The impact of demographic transition on the labour market situation is the zero rate of growth in the younger age group of 15-29 years since 1990, which means there is no net addition to the annual entrants this age group of the labour force (Bhat and Irudaya Rajan 1990). Shift in social expectation of the younger generation in the rural areas has contributed to the reported scarcity of labour in the rural casual labour market. Farmers from all over Kerala have been reporting a shortage of labour for casual and manual unskilled work in agriculture. In a village study of the agricultural labour households in a wetland rice growing region of Kerala in the late eighties (Francis 1990), it was found that the participation rate of the younger age group (16-30 years) in agricultural activities was only fifty-one percent where as it was seventy percent for all other age groups. Of the total unemployed, 88 percent were in the younger age group (Francis 1990); the others just could not 'afford' to be unemployed.

### **Distributional change in land holdings**

The size class distribution of land for 1980 – 81 and 1986-'87 given in Table 2.3. There has occurred an increase in number and the proportion of land area under marginal holdings.

**Table 2.3 Percentage Distribution of Number of Holdings and Area Operated by Major Size Group of Holdings**

Size Group (In Hectares)	1980 – 81		1986 - 87	
	No. of Holding	Area	No. of Holdings	Area
Marginal Holding (<1)	89.2	41.6	91.5	46.1
Small Holding (1 – 2)	6.9	22.0	5.7	21.5
Semi-medium holding (2 – 4)	2.9	18.4	2.1	15.3
Medium Holding (4 – 10)	0.9	10.9	0.5	7.4
Large Holding (> 10)	0.1	7.2	0.0	9.7
Lorenz Ratio	.609	.620		

Source: Govt. of Kerala Agricultural Census 1985-86, Dept. of Economics and Statistics, Thiruvananthapuram

It might have come about through upward mobility of previously landless households into this category through market/non-market means, subdivision of holdings within this group, downward mobility of households previously belonging to higher size classes through subdivision or loss of land via market or non-market channels, etc. Similarly the shares in the number of holdings and areas of a few larger-holding categories have declined.

The time–profile of formation of households may be seen from row-total percentages in Table 2.4. We find that nearly 50 percent of households had come into existence by 1970

and the other 50 percent after 1970. Thus 1970 emerge as the median year of formation of sample households. As regards the initial landholding position of old and new households we see that the proportion of households in the bottom three size-classes increases and in the top three size-classes decreases. Such a relative proliferation of smaller initial operated holding among younger households is reflected in a steady decline in the average size of initial operated area as the average age of the sample households decreases (Table 2.4 Last column). This can be said to be a reflection of aggregate downward inter-generational mobility due to increasing scarcity of land as time passes by.

**Table 2.4 Percentage distribution of sample households by two broad size classes of operated area at point of origin/in 1970 and by year of origin**

Year of origin	Size class in acres		Total	Row total	Average operated area (Acres)
	< .5	> .5			
By 1970	29.8	78.2	100	531 49.2	1.88
1971-75	41.5	58.5	100	154 14.3	1.48
1976-80	45.0	55.0	100	198 16.3	1.30
1981 and after	49.7	50.3	100	197 18.2	1.04
Column total	417 38.6	671 62.2	100	1080 100.0	1.36

Source: abridged from Sakti Prasad Padhi and Nair K. N. C. D. S. working paper No. 245.

**Table 2.5 Intra-generational change in decile shares and in Inequality**

Point of origin/ 1970 operated Holding decile	Decile shares (%)		Absolute gain (+)/Loss(-) in (%) shares	Proportional gain/loss (%)
	Point of origin/in 1970	In 1987		
Poorest	0.45	0.50	+0.05	+11.11
2	0.81	0.84	+0.03	+03.70
3	2.00	2.04	+0.04	+02.00
4	3.50	3.55	+0.05	+01.43
5	4.58	4.64	+0.06	+01.31
6	6.38	6.37	-0.01	-00.15
7	8.99	8.89	-0.10	-01.11
8	14.51	14.62	+0.11	+00.75
9	18.60	18.67	+0.27	+01.45
Wealthiest	40.18	39.82	-0.36	-00.89

Source: Sakti Prasad Padhi and Nair K. N. C. D. S. working paper No. 245

Table 2.5 shows the distributional change for the same households over time in decile shares between point of origin (1970) and 1987 for an unchanging household distribution. Here the bottom five deciles have registered small gains and the wealthiest decile a slight loss. The net result of all this is reflected in a slight decline in the intra-generational inequality of land distribution. Inter-generational economic mobility, reduction in intra-generational inequality in land distribution and the re-emergence of tenancy in the 1990s are indicative of another round of agrarian reform which may remove the mismatch between those who own land, but keep them fallow and those who have labour.

### **Incidence of tenancy**

During early seventies and eighties, both in terms of households and area, there has been a sharp decline in the incidence of tenancy (Nair et al. 1990). The proportion of households leased-in-land in Kerala declined from 17.7 to 12.7 percent. The proportion of leased-in area to owned area declined from 9.1 to 2.3 percent. In the case of households leasing out land, it declined from 6.5 percent to 1.7 percent (Table 2.7). The decline in area leased out was from 3.0 to 0.4 percent. Though the incidence of tenancy has declined the changes in the landholding pattern, and the changed character of labour market, which produced a paradoxical situation in Kerala, may have been the reasons for changes in the informal lease market. This is reflected partly in the change in the distribution of leased-in-land across size group of holdings and partly in terms of lease.

**Table 2.6 Percentage of Households Leasing-in Land to All Households**

States	Households		Leased-in Area to Owned Area	
	1971	1981	1971	1981
Andhra Pradesh	20.95	19.74	9.08	6.51
Assam	49.17	14.09	23.23	6.87
Bihar	33.48	17.22	16.17	10.42
Gujarat	13.74	9.01	4.31	2.00
Haryana	29.41	22.28	27.80	19.65
Himachal Pradesh	25.62	16.95	11.23	2.94
Jammu & Kashmir	13.15	5.40	8.03	2.79
Karnataka	27.68	16.95	17.14	6.62
Kerala	17.67	12.70	9.10	2.28
Madhya Pradesh	23.26	12.29	8.25	3.80
Maharashtra	14.69	16.70	6.78	5.57
Orissa	14.75	16.81	14.70	8.04
Punjab	27.52	23.03	34.33	18.98



Rajasthan	14.81	9.70	5.50	4.34
Tamil Nadu	31.16	29.22	13.99	13.37
Uttar Pradesh	24.96	21.27	13.76	11.09
West Bengal	30.63	27.09	21.57	12.29
All India	23.72	18.53	10.69	7.46

Source: K. N. Nair, N. Navaneetham and A. C. Dhas w.p. No. 237 Page. No. 17

**Table 2.7 Percentage of Households Leasing-out Land to All Households**

States	Households		Leased-in Area to Owned Area	
	1971	1981	1971	1981
Andhra Pradesh	12.05	6.17	8.93	6.00
Assam	12.00	3.15	8.18	1.78
Bihar	15.80	7.44	6.78	4.95
Gujarat	3.79	2.32	2.29	1.67
Haryana	11.63	9.40	8.05	10.64
Himachal Pradesh	8.94	9.74	4.09	6.91
Jammu & Kashmir	3.73	1.54	3.21	0.97
Karnataka	11.05	5.81	7.90	5.01
Kerala	6.47	1.68	3.00	0.43
Madhya Pradesh	7.67	3.19	3.62	3.29
Maharashtra	5.02	3.10	3.20	2.70
Orissa	13.11	6.71	7.04	5.45
Punjab	13.67	8.35	17.69	11.07
Rajasthan	5.78	5.49	4.09	3.14
Tamil Nadu	8.44	7.78	8.88	5.89
Uttar Pradesh	10.06	6.71	6.41	4.79
West Bengal	9.48	3.71	8.95	2.48
All India	9.87	5.53	5.77	4.29

Source: K. N. Nair, N. Navaneetham and A. C. Das w.p. No. 237 Page No. 18.

**Table 2.8 Percentage Distribution of Area Leased in by Size Class of Operational holding in Kerala**

Year	0-2.02	2.03-4.04	4.05-6.07	6.08-10.12	> 10.13	All size
1971	69.13	17.93	9.77	2.60	0.58	100
1981	76.55	2.65	4.60	3.21	12.99	100

Source: Abridged from Nair. K. N. (1990 working paper 237)

The distribution of leased in area across size categories of holdings in Kerala shows a mixed trend (Table 2.8). There have been significant changes in the forms of tenancy during the 'seventies. The distribution of leased in areas has moved in favour of the higher size group of holdings.

**Table 2.9 Leased-In Operated Area according to Terms of Lease: Kerala and India**

State	Terms of Lease				For other terms	Total
	For Fixed Money	For Fixed produce	for share of Produce	For usufructuary mortgage		
Kerala						
1971	13.04	39.81	7.33	3.38	36.44	100
1981	3.41	0.00	13.17	2.44	80.98	100
All India						
1971	15.4	11.6	47.9	3.1	22	100
1981	10.9	6.3	45	2.2	34	100

Source: Abridged from Nair K. N. (1990 working paper 237)

For the country as a whole, the proportion of area leased-in for share of produce was about 48 percent in 1971 (Table 2.9) and it slightly declined to 45 percent by 1981. The corresponding proportions in Kerala were 7 and 13 percent. The percentage of area leased-in for other terms has shown substantial increase. The other terms include the leases, which had been only verbally contracted and not recorded on any document. The increase was spectacular in Kerala, from 36 percent to 81 percent. The quantitative and qualitative changes in tenancy have also influenced the type of households who are involved in the lease market. According to the 37<sup>th</sup> round of NSS (Table 2.10) 29 percent of the operated area leased out in Kerala was by self-employed households in agriculture, 12 percent by agricultural labour households and 59 percent by other households. As regards the type of households leasing-in land about 30 percent of the area leased in was by sections other than the self employed or the agricultural labour. Table 2.11 shows a mixed trend in distributional pattern.

**Table 2.10 Percentage of Area Leased Out and Area Leased in by Different Household Type in Kerala in 1982**

	Percentage of area leased out by				Percentage of area leased in			
	Self Employed in agriculture	Agri-cultural Labour	Others	Total	Self Employed in agriculture	Agri-cultural Labour	Others	Total
Kerala	29.27	12.20	58.54	100	56.14	13.60	30.26	100
All India	34.35	19.39	46.26	100	85.25	7.51	7.24	100

Source: Govt. of India (1989): Same aspects of household ownership holding, 37<sup>th</sup> round Jan-Dec 1982 No. 330. Dept. of statistics Ministry of Planning.

**Table 2.11 Percentage Distribution of Operational Holdings and Area Operated Over 5 Broad Categories of Operational Holdings (Kerala)**

	Marginal		Small		Small Medium		Medium		Large	
	<1.01 ha		1.02 – 2.02 ha		2.03 – 4.04 ha		4.05-10.12 ha		> 10.13 ha	
	No. of holding	Area operated	No. of holding	Area operated	No. of holding	Area operated	No. of holding	Area operated	No. of holding	Area operated
1970-71	86.2	40.1	8.9	24.8	3.66	20.1	1.13	12.3	0.1	2.96
1981-82	88.9	45.5	7.3	24.1	12.9	18.5	10.8	10.1	0.07	2.93

Source: Govt. of India (1988): Sarvekshana, Vol. 12, No. 1., Issue No. 36, July, Department of Statistics Ministry of Planning.

**Table 2.12 Percentage Distribution of Increments to Work Force in Kerala Sector 1977-'78 to 1987-'88**

Sector	Rural			Total		
	M	F	P	M	F	P
Primary	27.4	14.8	26.7	19.4	9.5	18.1
(Agriculture)	12.5	-59.8	9.2	10.7	-5.8	8.6
Secondary	16.9	-110.7	12.2	24.4	-5.5	20.9
(Manufacturing)	-15.4	-115.1	-19.7	2.8	-12.6	0.9
Tertiary	55.7	186.0	61.1	56.1	96.0	60.9
All sectors	100.0	100.0	100.0	100.0	100.0	100.0

Source: Abridged from Mathew (1996:206) based on N.S.S. 32<sup>nd</sup> and 43<sup>rd</sup> rounds.

The socio-economic status of these families has changed. The old regime of high population growth, low per capita income growth, higher incidence of rural poverty, relatively low social development, dependence on primary sector as well as labour-intensive manufacture in the secondary sector for employment and a trade unionist strategy of concentrating on wage bargaining and formal employment status supported by political parties has given way, by the eighties, to a regime of low population growth, low incidence of absolute poverty, relatively high social development, higher incidence of unemployment and high growth of the service sector that has emerged as the single largest provider of new employment (Table 2.12). This shift in the socio-economic regime is the major incentive for the changed mode of labour on a subsistence strategy.

### 3. Changes in Land Use Pattern

The land use pattern in Travancore-Cochin and Malabar up to 1956 shows that only wetlands and most fertile and convenient regions had been brought under cultivation by the end of the 19th century Kerala. Rice, coconut, pulses and vegetables accounted for the bulk of the crops grown. Cultivation was mainly for subsistence or for local trade. The commercialisation of agriculture commenced in the closing years of the 19th century and the early part of the 20th century with the entry of European capital into the plantation sector, mainly tea, coffee, rubber and cardamom. K N Raj says “The process of raising land values was further helped by the growth of population and infra-structural investments in irrigation, communication and transport, particularly in regions with obviously too high commercial potential. With rising values of land and expanding opportunity for trade in agricultural produce came also the inflow of finance from outside the agrarian society through urban traders and moneylenders” (Raj, K.N. 1985)

After the formation of the Kerala state there has been diversification in the cropping pattern. In addition to rice and tapioca a number of other garden land crops have contributed to the state’s food supply. As regards cash crops, cultivation pepper, ginger and other traditional export crops has virtually stagnated. Cardamom and tea have not shown any substantial increase areawise. Areas under coconut and coffee have increased slightly. The single crop which has gained immensely during the past 30 years as rubber, with a four fold increase in area. The institutional promotion and guidance encouraged farmers to take to rubber cultivation. The steady increase in rubber prices and the assurance given to rubber growers by the government of an expanding rubber market due to industrialisation of the country were clear signals that rubber was a dependable cash crop. In consequence, rubber cultivation spread from the High Ranges to midlands and even to marshy coastal lands.

Even though rice is the single largest crop grown in Kerala even today, its area under rice cultivation has gone down by 150% in the past three decades. Rising cost of cultivation, stagnating rice prices and lucrative alternative uses of paddy lands are the main reasons for the wise decline.

Changes in land use patterns during the past 30 years bring out three important patterns. Firstly, the area put to non- agricultural purposes has increased mainly due to population pressures and emerging living styles. Secondly, area under forest has dwindled due to expansion of plantations, river valley projects and encroachment of farmers into forestlands. Thirdly, consequent to the rise in the cost of cultivation of traditional crops, more land is either left fallow or used to grow less labour absorbing crops.

With the passing of the Agrarian Relations Act in 1960 and the Land Reform Act in 1963,

tenancy rights were conferred on cultivators. Most owner cultivators of the 1960's and the 1970s had been tenants until the late 1950s. Fixity of tenure granted by the Kerala Land Reforms Act conferred ownership rights upon them. Most of these farmers, who belonged to the lower middle class, proceeded to cultivate their holdings intensively to sustain themselves and produce a substantial marketable surplus. Leasing out lands on a year-to-year basis also developed in Kuttanad.

The latest trend namely commercialisation of small holdings suggests substantial capital entry. Small holdings have switched over to perennial crops like rubber. Large holdings have pursued a diversified approach. The largest size group has shifted to coconut and rubber, discontinuing tapioca cultivation. The main shifts in the land-use patterns have happened only after 1982 and the intensity of the conversion has been very high.

The incidence of tenancy has shown a declining trend in all states. For the country as a whole, about 38% of the land leased out was by households self-employed in agriculture about 19% by agricultural labour house holds and the remaining by other households.

The disparity in control over land has to be viewed in relations to the changes taking place in the land lease market. The land lease market has been working in the reverse direction in several states. This reverse flow of tenancy is largely an outcome of the emerging technology in agriculture according to the studies with reference to Punjab by Gill S. S (1989) & Singh Igbal. In order to realise the economies of scale in the new technology, the medium and large holding have entered the lease markets. However, in the case of small and marginal holdings, the ownership of work animals for cultivation has become increasingly difficult and the number of work animals in most part of the country has shown a sharp decline in the seventies. Also non-farm employment opportunities have increased in regions of rapid growth of agriculture. In such a situation, it must have been advantageous for non-cultivating owners of small holdings to lease out their land. The tenancy relation that has emerged in agriculture is however, qualitatively different from that of the past.

The incidence of tenancy has shown a declining trend in all the states in India. The form of tenancy has also undergone change. In a few states, commercial tenancy has gained importance. In all the states, the area leased under 'other terms' (implying mainly oral tenancy) has shown substantial increase.

There have been qualitative and quantitative changes in tenancy. According to the 31st round of the NSS, at the all-India level 34 percent of the operated area leased-out was by households who were self-employed in agriculture; about 19 percent by agricultural labour households and about 46 percent by other households. Regarding the type households which leased in land, the survey showed that it was agriculture. A marked exception to this is Kerala where about 30 percent of the area leased was by others. The extent to which allocation of land through the land-lease market has affected the size distribution of operational holding in Kerala is shown in Table 3.1.

**Table 3.1 Distribution of operational holdings reporting leased-in area and of distribution of leased-in area Size Group of Operational Holdings: Kerala**

Broad Size Class Operati-onal holdings	% of operational holdings reportings leased in area during any season	% distribution of area leased in during Khari and Rabi	Area Leased in	
			Any part of the year	Major part of year
0.002-0.20	7	94	42	39
0.21 -0.50	6	94	67	67
0.51 -1.00	4	99	41	41
1.01 -2.00	10	87	128	115
2.01 -4.00	7	99	51	51
4.01-10.00	17	81	41	41
10.01 and above	60	89	24	24
All Sizes	7	91	394	379

Source: Sarvekshana January-March 1997.

According to the report of Sarvekshana January- March 1997, for the broad size class of operational holdings of 10 hectares and above, the proportion of operational holding reporting leased-in area during any season was 60 percent. The proportion of area leased in during both the seasons was 89 percent. The area leased in during any part of the year by this size group was 24 hect. For size-class 1.01 to 2.00 hect the area leased in are 128 hect., the highest for any size class.

**Table-3.2 Land Use Pattern in Kerala 1995-'96**  
(Area figures in Percentage)

<b>Classification of Land</b>	<b>1975-76</b>	<b>1980-81</b>	<b>1985-86</b>	<b>1990-91</b>	<b>1994-95</b>	<b>1995-96</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>
1. Total geographical area	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2. Forest	27.84	27.84	27.84	27.84	27.84	27.84	27.83	27.80	27.80
3. Land put to non-agricultural uses	6.67	6.94	7.17	7.65	8.31	8.06	8.24	8.60	9.60
4. Barren and uncultivable land	2.02	2.21	2.14	1.50	1.20	1.11	1.00	0.70	0.70
5. Permanent pastures and other grazing lands	0.51	0.14	0.11	0.05	0.04	0.03	0.02	0.02	0.007
6. Land under miscellaneous tree crops	2.17	1.64	1.29	0.89	0.83	0.69	0.57	0.50	0.50
7. Cultivable waste	2.92	3.32	3.23	2.43	2.12	1.91	1.67	1.61	1.50
8. Fallow other than current fallow	0.59	0.69	0.72	0.68	0.79	0.75	0.71	0.81	0.80
9. Current fallow	0.94	1.12	1.11	1.14	1.23	1.32	1.51	1.80	1.90
10. Net area sown	56.34	56.10	53.81	57.83	57.64	58.29	58.44	58.16	57.60
11. Total cropped area	76.72	74.25	73.77	78.32	78.46	78.94	76.41	75.10	77.20

Source: Economic Review 2001, State Planning Board.



Table 3.2 shows the changes in the land use pattern that occurred in the state during the past fifty years. Out of the geographical area of 38.85 thousand hectares, reserve forest accounts for 27.84 percent. During the past 20 years, the extent of cultivable land increased from 60.79 percent to 70.33 percent. Land put to non-agricultural uses increased from 6.67 percent to 8.06 percent.

The composition of cultivable land has also undergone significant changes. While the proportion of net area sown has shown a marginal increase from 56.34 percent to 58.29 percent, the proportion of fallow land has increased from 1.53 percent to 2.07 percent. This shows that after reclaiming cultivable land, it is left fallow, presumably for use at a later stage for non-agricultural purposes. The emerging pattern shows intensive use of every bit of land that has potential for any kind of use. The official figures do not present a full picture of the extent of deforestation and conversion of wetlands. As per official records, there are 10.81 lakh ha. of forest in Kerala. This is about 27.8 percent of the total geographical area. Starting from the 1950s deforestation began initially because of allotment of forestland under the “Grow more food” campaign schemes and, later, by encroachment by land hungry people.

The total wetland (Nilam) in Kerala, according to revenue records, is 5.74 lakh ha. A study conducted by Kerala Statistical Institute in 1992-93 shows that only an area of 3.33 lakh ha. remains as wetlands and used for rice cultivation. Nearly 1.37 lakh hectares are now under perennial crops and 0.35 lakh hectares are put to non-agricultural uses. The area converted for cultivation of perennial crops and non-agricultural uses before 1968 was only 0.63 lakh ha. whereas between 1968 and 1992 the corresponding figure was 1.72 lakh ha. These together form 30 percent of the total wetland in the state. This entire area has been filled up and rendered unsuitable for rice cultivation. It is also found that about 0.69 lakh ha. of wetlands are used either for annual and seasonal crops other than rice or are left fallow. This was the position in 1992-93 and the position seems to have deteriorated further. The summary data on wetlands taken for the study are given in table 3.3.

The crop pattern in Kerala is quite different from that of the national scene owing to its topography and climatic conditions. Perennial crops dominate the cultivated area in the state. Over the years, the share of perennial crops has been increasing. Table 3.4 shows the change in area under different crops from 1952-1997. The share of area under paddy has nearly halved during the past two decades. The area under tapioca has declined to about one-third. The area under vegetable has gone down to by nearly two-thirds. Among the crops that have expanded in area cultivated, is rubber, which has more than doubled its area followed by coconut and pepper which have increased their area by nearly one-third and three-fourth respectively. Thus, it is seen that in the process of inter-crop adjustment, food crops in general are the losers and perennial cash crops the gainers.

**Table 3.3 Conversion of wet lands in Kerala**

<b>Pattern of Land Use</b>	<b>Area (in lakh hectares)</b>	<b>Percentage</b>
1. Area classified as wet land (Nilam) (As per basic tax register)	5.74	100.00
2. Area under perennial crops	1.37	23.80
3. Area under non-agricultural uses	0.35	6.10
4. Area under annual & Seasonal crops	0.49	8.50
5. Fallow land	0.20	3.50
6. Rice	3.33	58.10
7. Area converted for perennial crops and non agricultural uses		
a) Before 1968	0.63	11.00
b) 1968 to 1992	1.09	18.90
c) Total	1.72	29.90

Source: Conversion of Paddy land, Kerala, Kerala Statistical Institute, Thiruvananthapuram – 1994

Except rice and plantation crops most of the other crops are raised under a multi-tier cropping system in and around homesteads. In most of the homesteads coconut is the base crop and other crops like pepper, plantain, arecanut, tapioca, and tubers are grown as inter-crops. Thus one acre of coconut garden may contain in addition to the coconut trees, fifty cents of tubers, thirty cents of plantain, ten cents of pepper, five cents of ginger etc. This mixed cropping system has given way to the mono-cropping system and affected crop diversity in homestead farms. Rubber is the monocrop typically cultivated in homesteads.

The state has about 5.74 lakh ha. wetlands according to old village records (Mahesh). Nearly 4 lakh ha. Of this area was being used for rice cultivation and a small portion for sugarcane, banana and plantains, etc. The area under rice touched a maximum by the mid-seventies mainly through stabilisation of area under winter and summer crops. The physical area under rice has been continuously on the decline during past two decades. The net area sown under rice is now only 2.5 lakh ha. The decline is still continuing (Table 3.5).aq  
Table 3.5 Change in Area under Rice Cultivation (Area in Lakh Hectares)

**Table 3.4 Area under Principal Crops 1957-58 to 1996-97**

Name of crop utilisation	1957-58	1975-76	1985-86	1995-96	1996-97 (Forecast)
Net cultivated area	1840	2189	2191	2265	-
Gross cropped area	2211	2981	2867	3067	-
Rice	767	885	678	471	431
Sugar Cane	9	8	8	6	6
Pepper	91	108	122	191	173
Ginger	9	12	16	13	14
Arecanut	50	77	59	71	73
Banana-Plantain	41	52	43	73	72
Cashew	44	109	138	103	101
Tapioca	214	327	203	114	142
Coconut	463	693	705	914	1005
Tea	40	38	35	35	-
Coffee	17	42	66	82	-
Rubber	100	207	330	449	-
Total food grains	-	926	712	583	-
Total food crops	-	1909	1606	1441	-
Total non-food crops	-	1072	1261	1626	-

Source: Statistics since independence, Dept. Economics and Statistics. , 1998.

**Table 3.5 Change in Area under Rice Cultivation (Area in Lakh Hectares)**

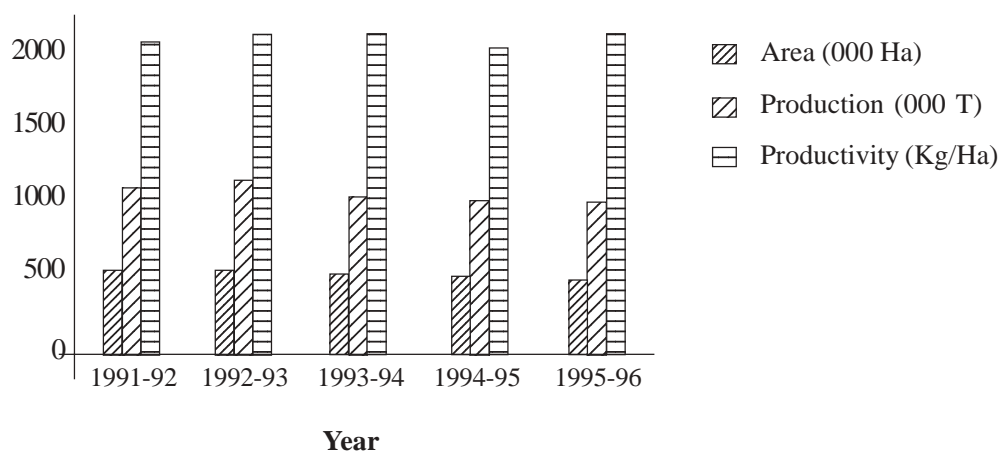
Season	1975-76	1980-81	1985-86	1990-91	1995-96
Autumn	3.97	3.49	2.80	2.36	1.87
Winter	3.84	3.54	3.13	2.59	2.25
Summer	1.04	0.98	0.85	0.65	0.60
Total	8.85	8.02	6.78	5.60	4.70

Source: Dept. Economics and Statistics, Kerala, 1997.

The total area under food grains in general was only 4.31 lakh hectares in the year 1996-97. The production of rice declined from 9.53 lakh mts in 1995-96 to 8.7 lakh mts in 1996-

97 (Graph 3.1). Though the total area under rice declined, the area under high- yielding variety has not declined. As a result, the average productivity of the State has remained above the national average. According to Economic survey 1997 during 1996-97, the area under high yielding variety (Viruppu 40 percent, Mundakan 36 percent and Puncha 24 percent) is retained.

**Graph 3.1 Area, Production and Productivity of Rice in Kerala**



**Table 3.6 Distribution of working force in Kerala**

Item	1951		1991	
	No. Of workers	Percentage	No.Of workers	Percentage
Cultivators	10.12	23.22	10.16	12.24
Agricultural Labourers	11.15	25.57	21.21	25.55
Life stock, Forestry, Fishing, Hunting and plantation orchards and allied activities	2.34	6.06	7.67	9.24
Mining and Quarrying	-	-	0.82	0.99
a) Processing servicing and Repairs in Household industry	4.71	10.80	2.14	2.58
b) Manufacturing processing servicing and repairs in other sectors	4.10	9.40	9.62	11.59
Construction	0.58	1.33	3.32	4.00
Trade and Commerce	2.89	6.63	10.50	12.64
Transport, storage and communication	1.39	3.19	4.97	5.99
Other services	6.02	13.80	12.60	15.18
Total main workers	43.60	100.00	83.01	100.00

Source: Statistics since independence, Dept. Economics and Statistics, 1998.

In 1951, 23.22 percent of the working force were cultivators and in 1991 it declined to 12.24 percent. Agricultural labourers constituted 26 percent of the working force both in 1951 and in 1991. The increase in the construction working force may be the result of immigrant construction workers from the neighbouring state of Tamil Nadu.

The emerging land use/crop pattern and the distribution of the working force in the state thus show the following features.

The area of wetlands has declined considerably. A portion of the shift of wetlands has been for non-agricultural activities. The remaining portion is still available for re-conversion to rice. This is the area now covered by seasonal crops. Perennial crops have already covered the rest of the area. Thus the overall effect of reduction of wetland is the reduction of area under rice. Vast areas previously under a multiple crop system are now covered by the mono-crop system. Perennial cash crops dominate the farm sector. One section of agricultural labourers who had worked in these farm sectors became rubber tappers and another continued as casual agriculture labour. High wage rates greatly reduce the number of workdays. Fall in rubber prices reduces the number of tapping days. Agricultural labourers and rubber tappers cultivate seasonal crops on a lease basis. The area under lease on 'other terms' is bringing about a new pattern of agrarian relations in Kerala.

## 4. The Study Area

### General profile

The study was conducted in Padopattakulanji of Kulanada panchayat, Ayithil ward of Mezhuveli panchayat, and Oonnukallu of Chenneerkara panchayat. Kulanada, Chenneerkara and Mezhuveli are adjacent panchayats situated on the south-western part of Pathanamthitta district. The study area of these panchayats comes under southern midland zone.

### The study area : A profile

Fig. 4.1



Figure 4.1 shows the map of the three panchayats, the spotted part in the map representing the study area. The three panchayats are in Kozhencherry Taluk. Box 4.1 shows the general profile of the study area. The three panchayats together has a total area of 55.44 sq. km and the total population of the study area comes to about 10,700 as per panchayat records. There are three U.P. schools, five L.P. schools and five anganvadis in the study area. The topography of the study area consists of hills, slopes, planes, low-lying wetlands and

watershed areas. Agriculture is the main means of livelihood for 3598 persons of Kulanada panchayat of whom 1807 are agricultural labourers (Table 4.1). A small proportion of population is engaged in non-agricultural activities like quarrying, running petty trades, STD service stations. Table 4.2 shows that 7,800 persons are working in different sectors in the Mezhuveli Panchayat- 2,536 people in the agricultural sector, (1,076 people as agricultural labourers) and 3,900 people in government services and private service sector. A small proportion is engaged in other activities such as quarrying, cottage and small scale industries, business and petty trade.

The three panchayats are bounded by Aranmula and Mallapuzhasserry panchayats on the North, Elanthoor and Omalloor panchayat on the east, the Achenkovil River on the South and Mulakuzha and Venmony panchayats on the west (Figure 4.1). Nedumpoyka and Karayathu Padi of Ramanchira padasekharam of Kulanada panchayat. Ayithil Ettupara Padavu and Pulumthitta of ward 6 of Mezhuveli panchayat and Kuttikadu fields of ward 6 and Panackal fields of ward 6 of Nallanikunnu area of Chenneerkara panchayat were selected as the sample. A general profile of the study area is given in box 4.1.

#### General profile of the study area

Box 4.1

Name	: Padopattukulanji Ward – 6 Ayithil Ward – 6 Oonnukallu Ward - 6	LPS : 5 Anganvadi : 5 PWD Roads
Block	: Kulanada Elanthoor	Pannil - Raman Chira Elavanthitta - Kozhencherry Elavumthitta - Elanthoor Elavumthitta - Ramanchira
<b>Panchayats &amp; Area</b>		<b>Panchayat Roads</b>
Kulanada	: 21.5 Sq. Km	Punnakunnu - Pookaitha
Mezhuveli	: 14.44 Sq. Km	Pookaitha - Chakkalamannil
Chenneerkara	: 19.5 Sq. Km	Punnnakunnu - Chakkalamannil
District	: Pathanamthitta	Elavumthitta - Ayithil
State	: Kerala	Elavumthitta - Muttathukonam
Population	: 10700 (Panchayat Record 2001)	Kulakkada - Odiyoozhum
No. Of Schools	: 13	Mulloor - Kulakkada
U P Schools	: 3	Oonnukal - Mathoor

Source: Primary Analysis

**Table 4.1 Labour Distribution of Kulanada Panchayat**

Sl. No.	Major Fields	Men	Women	Total
1	Agriculture	1699	92	1791
2	Agriculture labourers	1244	563	1807
3	Animal Husbandry	56	21	77
4	Mining and Quarrying	7	2	9
5	Service Sectors	73	10	83
6	Construction work	229	2	231
7	Petty trade/Business	485	46	531
8	STD	215	15	230
9	Other sector	617	447	1064

Source: Bureau Economics and Statistics, Kulanada Grama Panchayat Vikasana Rekha

**Table 4.2 Labour Distribution of the Mezhuveli Panchayat**

Sl. No.	Major fields	Men	Women	Total
1	Agriculture	1364	96	1460
2	Agri: Labour	778	298	1076
3	Animal Husbandry	65	9	74
4	Mining & Quarrying	6	1	7
5	Cottage industries	67	3	70
6	Small Scale Industries	128	14	142
7	Construction	121	1	122
8	Transport & Communication	111	3	114
9	Business	230	30	260
10	Other labours	284	291	575
11	Private & Public sector industries	3154	746	3900

Source: Census report 1991.



**Table 4.3 Changes in Agricultural Land Area, 1951-1991; Mezhuveli Panchayat.**

Land Area	As per 1951 Census (Ha.)	1991 Census (Ha.)	Percentage increase/decrease
Wetland	303.00	179.00	(-) 40.90
Gardenland	1037.00	1258.40	+ 21.30
Fallow land	100.00	6.60	93.30

Source: Resource Map Mezhuveli Panchayat

**Table 4.4 Change in the Number of Agricultural Labourers, 1951-'91; Mezhuveli Panchayat**

	1951 Census	1991 census	Decline Percentage
Men	3601	1363	62.12
Women	3607	96	97.33
Total	7208	1460	79.74

Source: Mezhuveli Grama Panchayat – Vikasana Rekha

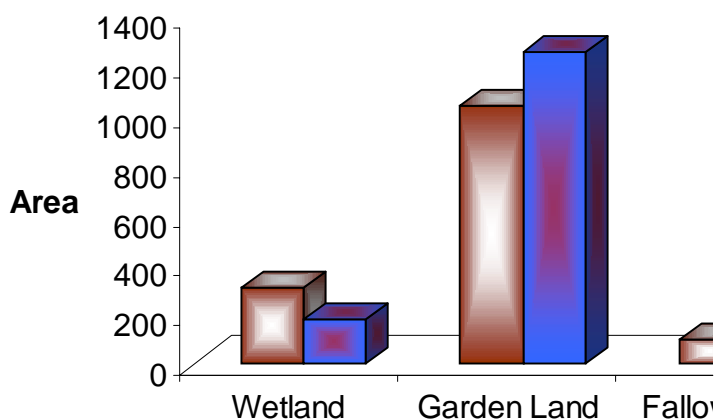
#### **Land use pattern and labour distribution of the panchayats**

Once Mezhuveli was a place of farmers. All food crops for local consumption were grown in the locality itself. Coconut, rice and plantains were the important farm products. Other farm products like tapioca, colocasia, yam and pulses were also cultivated. Fifty years ago, 365 hectares were under rice cultivation. From 1950 onwards plantains began to be widely cultivated in rice fields. The main crop of garden lands is coconut. But owing to widespread diseases of coconut, cultivations have reduced the area under this crop. Rubber is at present the major cash crop of these areas. Nearly 124 hectares of wetland were converted into garden land over the period 1951 and 1991. The major wetland crop of rice has dwindled for a variety of reasons - crop diseases, attack of pest and insects, natural calamities, lack of high yielding varieties of seeds, high price of fertilizers, pesticides and insecticides, non-availability of labourers in time, high wage rates and low price of rice. The process of conversion is still going on. Conversion of wetland into garden lands and bringing fallow lands under cultivation have increased the area of garden lands by about 21 percent in this panchayat. This is shown in Table 4.3 and Graph 4.1

Table 4.4 and Graph 4.2 show changes in the number of full-time agricultural labourers, both men and women, in Mezhuveli panchayat between 1951 and 1991. Forty years have brought about nearly 80 percent decline in the number of full time agriculturists in the panchayat. In agriculture the number of women labourers was equal to the number of men labourers in 1951. But in 1991 the numbers have come down for both; but the decline in

the case of women has been phenomenal. It constituted only 2.7 percent of the number in 1951. The total area of Mezhuveli panchayat (1444 Ha.) is 0.037 percent of the total land area of the Kerala State. Land use pattern of Mezhuveli panchayat is shown in Table 4.6 and graph 4.3. Uncultivable fallow land consists of *Kavu*, playgrounds etc. Buildings including residential houses of farmers which consist of 64 hectares are also included in the resource map. The major crop is rubber, which covers 49.42 percent of the total land area. The area under rice declined by about two-fifths. Those areas which are not converted for non-agricultural purpose are cultivated with crops like tapioca, betelvine, arecanut, plantains and vegetables. The areas under these crops are on the increase in recent years. Small and marginal farmers and agricultural labourers together come to 2536 persons as shown in Table 4.2. Agricultural labourers especially rice farm workers, displaced from rice cultivation, dislike spatial dislocation for livelihood activities.

**Graph 4.1 Changes in Agricultural Land Area (1951-1991)**



**Table 4.5 Land Resource according to Geographic Position**

Sl. No.	Geographical Area	Area (Hectares)	Percentage
1	Highland	186	12.88
2	Midland	860	59.56
3	Lowland	398	27.56
Total		1444	100.00

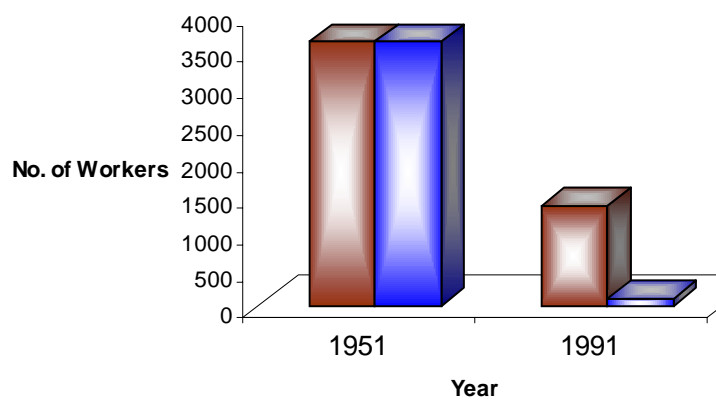
Source: Resource Map of Mezhuveli Panchayat 1991.

**Table 4.6 Land Use Pattern of Mezhuveli Panchayat**

Sl. No.	Pattern of Land Use	Area (Ha)	Percentage
1.	Rice(single crop)	66.00	4.60
2.	Rice(double crop)	105.00	7.32
3.	Rice (three crop)	1.40	0.10
4.	Fallow(uncultivable)	6.60	-
5.	Fallow(cultivable)	2.70	-
6.	Rubber	709.00	49.42
7.	Mixed cropping (including- coconut)	470.00	32.76
8.	Coconut	17.00	1.18
9.	Tapioca	38.00	2.65
10.	Cashew	19.00	1.32
11.	Betel vine	3.90	0.27
12.	Arecanut	1.40	0.10
13.	Plantain	2.70	0.19
14.	Vegetables	1.30	0.09
	Total	1434.70	100

Source: Resource Map 1991.

**Graph 4.2 Change in the Number of Agricultural Labourers (1951-1991)**



The soil in the geographical area does not vary much. The major crops suitable for this area are annual crops like rice, tapioca, sugar cane and tubers and perennial crops, such as coconut and arecanut. Coconut and arecanut cultivation is on the decline. The most prominent cultivation in 1990s was rubber. The fall in the price of rubber and large-scale import of latex have been reducing the attractiveness of rubber cultivation. Other major crops in the garden land are plantain, tapioca, ginger, yam (tubers) Table 4.7. Area under paddy in wet land is on the decrease. At present the major crops in the wet land are vettilla, ginger, plantain, colacasia and yarn.

Labour distribution of Kulanada panchayat is given in Table 4:1. Agriculturists and agricultural labourers together come to 3598. 1244 men and 563 women are agricultural labourers.

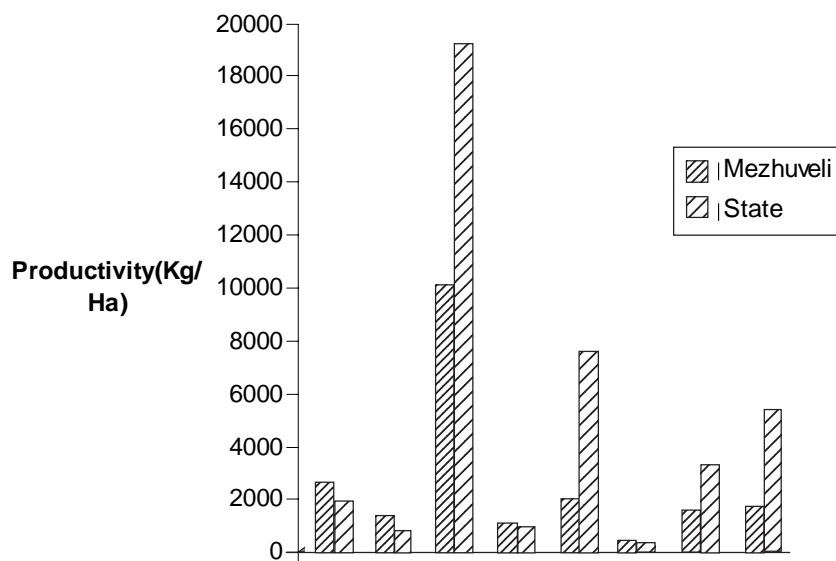
**Table 4.7 Land Use Pattern: Kulanada Panchayat**

Major Crops	Area (Ha)
Mixed Crops	650
Coconut	350
Mixed Tees	10
Rubber	1100
Cashew	5
Paddy	245
Marshy Wet land	5
River, Ponds, Stream	160
Plantain	55
Sugarcane	5
Pepper	10
Vegetables	20
Cocoa	10
Tapioca	30
Ginger	20
Betelvine	5
Arecanut	5
Other items	5

Source: *Krishi Bhavan*

The density of population in Kulanada Panchayat is 1069 which is marginally higher than that of Pathanamthitta district as a whole at 1026. In Kulanada Panchayat people used to follow mixed cropping but now an area of 1100 hectares is under rubber. In the plains an area of 350 hectares is under coconut. In the areas which once used to be double-cropped paddy lands, plantains, betelvine, and vegetables are cultivated at present. Conversion of wetland for cultivation of unorthodox crops like betelvine, vegetables and plantain is widespread.

**Graph 4.3 Average State Productivity Compared with Mezhuveli Panchayat**



Under the betelvine development project of the *Krishi Bhavan*, and each plot gets a subsidy of Rs. 500 to Rs. 750 for the construction of support pandal. There is also a crop insurance project in operation. Other schemes available are employment scheme for young men and women in the agricultural sector, schemes for distribution of vegetables seeds for schools under the Vegetable Development Project and free soil testing by *Krishi Bhavan*. Using the different projects of *Krishi Bhavan* and People's Plan Programme, unorthodox crops are becoming popular in the area. The labour days for the agricultural labourers and marginalised section of farmers are consequently on the increase.

The study area has an undulating topography with slopes and valleys and rolling hills, interspersed with low-lying wet lands. The land slopes down the hilly area to the paddy fields, and it rises and falls in roller-coaster fashion, trapping small sections of paddy lands in between. The soil in the hamlets ranges from laterite to clay. The hilly areas are mainly rocky with laterite and red soil in between. In the valleys laterite soil is seen. Clay and sandy alluvial soil are found in the low-lying plains and wetlands (Box 4.2).

**Box 4.2 Generalised Transect of the Study Area**

Terrain	Hills	Slopes & Valleys	Wet Land	Slopes & valleys	Hills
Soil	Rocky Soil Read Soil Laterite Soil	Laterite Soil	Sandy clay and Clay Alluvial soil	Laterite soil	Rockley
Water	Scarcity of water Tap water Tube wells	Scarcity of water Deep wells Streams	Abundant supply canal irrigation ponds streams	Scarcity of water steams Deep wells	Tap water Tube wells
Vegeta- tion	Rubber Cashew Natural trees	Rubber Cashew Coconut Arecanut Tubers Plantain Ginger	Paddy Plantain Betelvine Tapioca Ginger	Rubber Cashew Natural trees	Rubber Cashew Coconut Arecanut Tubers Plantain Ginger
Habita- tion	Isolated huts SC Colonies	All communities scattered houses	----	All communities scattered houses	Isolated Huts SC Colonies
Liveli- hood pattern	Agricultural labourers Rural farmers Quarrying Tapping	Farming service hollow bricks plantation construction work	---	Farming service Hollow bricks plantation construction work	Agricultural labourers Rural farmers quarrying tapping

## **5. Socio-Economic Profile of Labour**

### **Political economy of labour**

As maintained earlier, the downward trend in the primary commodities production sector, particularly the food production sector (rice and tapioca) for the past two decades needs to be arrested. The reversal of this trend is inevitable to augment the income of farmers and to increase the employment days of the agricultural and other rural labourers.

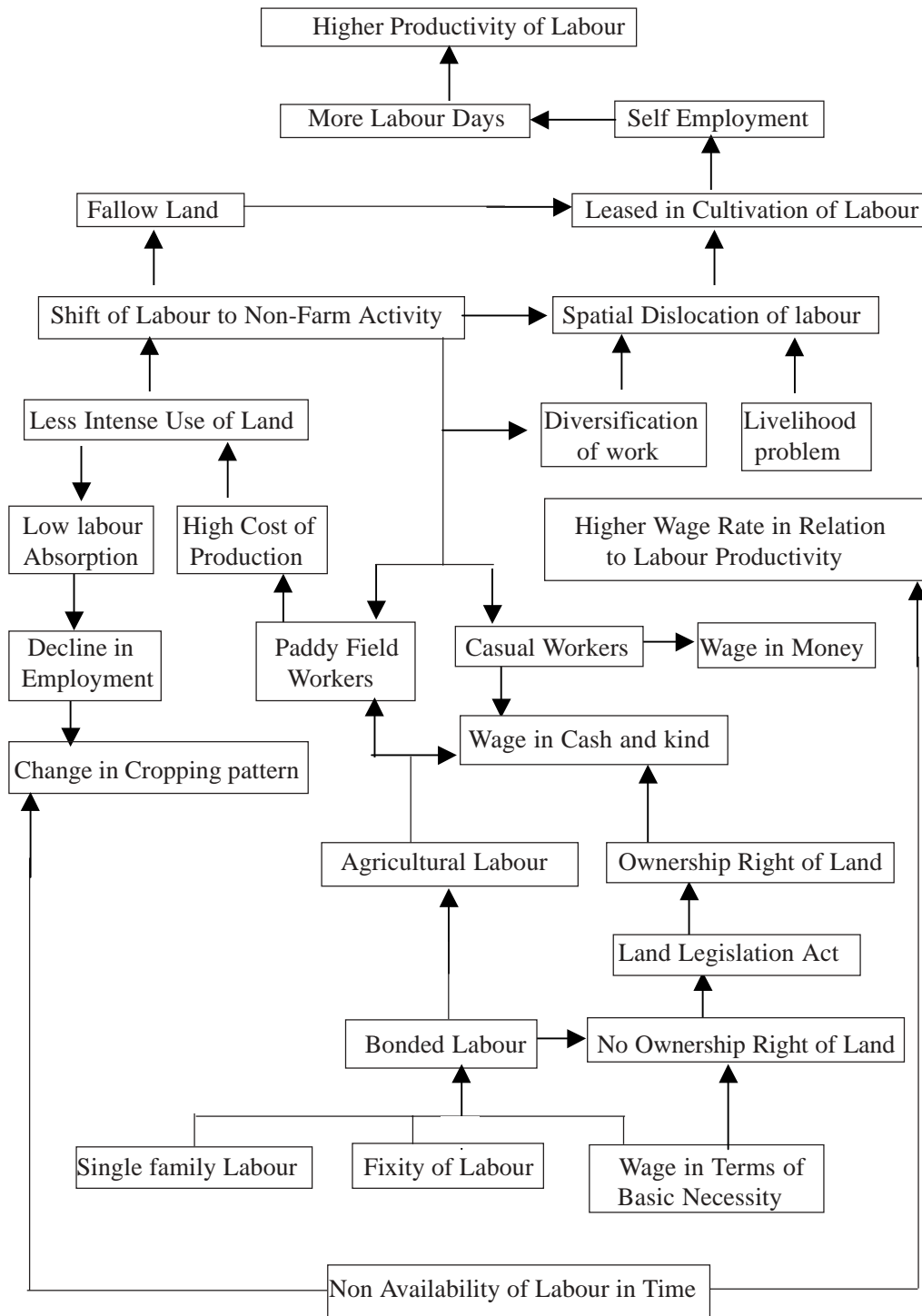
Though wage rates have increased over time, the earnings of labourers have declined as the number of days of employment fell more rapidly than rise in wage rates. With the decline in area under rice, the traditionally trained crop-specific labourers switched to non-farm activities. Seasonal labour shortages and wage rates remaining higher than productivity compelled small and marginal farmers to leave land either fallow or to switch over to less labour-intensive crops. As a result of the area decline and the subsequent fall in the days of employment, the younger generation preferred non-farm employment while the elderly left the sector in search of employment avenues in other sectors. Of late there is a change in livelihood pattern. To avoid spatial dislocation and to retain their status of self-employment, marginal farmers and agricultural labourers have turned increasingly to cultivation of leased-in lands. In this endeavour they face little competition from cultivators. The interface between supply of and demand for labour on the one hand and the intervening factors on the other are schematically presented in chart 5.1.

On the one hand, there is high incidence of unemployment and on the other, changing job expectations of the younger generation. As mentioned earlier there has been virtually little net addition to the number of annual entrants in the group of 15-29 go to the labour force since 1990. It is this phenomenon of the shift in the social expectation of the younger generation in the rural areas that has contributed to the reported scarcity of labour in the rural casual labour market (Kannan, 1990). Seventy-six percent of the young unemployed had an educational attainment of secondary school level and above (Francis 1990). Despite an increase in area under coconut, plucking of coconuts, a manual unskilled job has become difficult because of scarcity of labour. The younger generation of women opts out of traditional items of labour such as manual defibring of coconut husks and hand-spinning of coir. Younger members of fishing households prefer mechanized crafts. A whole range of rural unskilled manual work experiences scarcity of labour despite increasing wage rates. The rapid growth rates in wages for the rural unskilled labour (Table 5.1) compared to that of skilled labour testifies to this phenomenon.

Some demand for labour in the rural labour market, especially for workers in construction activities, is now being met by immigrant labour from the nearby state of Tamil Nadu. Workers are on the look out for opportunities of stable employment even if that involves a compromise in earnings. A desperate search for stable employment, which ensures a regular income, is the characteristic of the labour situation in Kerala.



**Chart 5.1 Labour Market Conditions and Factors of Adjustment**





**Table 5.1 Growth Rate in Money Wages of Rural Labour in Kerala 1963-64 to 1995-96**

Category	Period			Whole Period
	I	II	III	
Paddy field labour-men	10.13	15.48	14.30	10.11
Paddy field labour-women	13.47	12.04	16.95	10.42
Rural construction, unskilled-men	10.49	14.13	13.13	10.28
Rural construction unskilled-women	10.66	14.40	14.17	10.94
Rural Construction, skilled men (Carpenter)	8.87	14.61	11.40	9.89
Rural construction- skilled men (mason)	9.14	14.60	11.24	9.80
Consumer Price Index for agricultural labourers	10.56	8.99	10.15	7.26

Source: Kannan K. P. w.p. 284, Page 29.

The staff resistance by labour unions, which was the characteristic of the labour market till the mid eighties, has given way to tacit acceptance, a sign of changing preferences of the younger generation of the labour force as well as the failure of earlier union strategies. In this contest Kerala has lost a generation's time (25 years) in modernizing and upgrading its labour-intensive occupations. This failure has thrown up its own dilemmas in the new context of economic liberalization. When the earlier strategy of protecting current employment failed and the economy could not generate adequate employment, government resorted to extensive relief programmes. In the new context of economic liberalization the rationale of these programmes is being increasingly questioned mainly due to the fiscal crisis of the government.

In this political economy of labour, the subsistence of marginal farmers and casual labourers has been adversely affected. The distributional change in the land holding pattern that happened during the period between 'seventies and the 'eighties has resulted in inter-generational economic mobility of households and reduced intra-generational inequality in land distribution (Nair 1992). As regards the incidence of tenancy, 56 percent of lessees are households of the self-employed in agriculture. The leases are oral and not recorded in any documents. The distributional changes during late 'eighties show that the socio-economic status of these households has undergone significant change. Most of the cultivators have become lessors in the nineties due to various reasons already analyzed.

### **Economics of lease cultivation**

The methodology followed for the collection of data from the three study area (namely Mezhuveli, Chenneerkara, and Kulanada) is given below. Two schedules were prepared for surveying the economic profile of the lessees and lessors and one for recording the

cost of cultivation of crops such as betel, banana and tapioca. Another schedule was prepared for conducting case studies of a few farmers who had been cultivating betel for the last 50 years or more. The details were collected from 125 farmers of these three regions: Padopattakulanji of Kulanada panchayat, Aythil of Mezhuveli panchayat, and Oonnukallu of Chenneerkara panchayat. All the lessees and lessors in the Padasekarams of Nedumpoyka and Karayathupadi of Kulanada, Aythil Ettupara Padavu and Pulumthitta of Mezhuveli Panchayat and Kuttikadu fields and Panackal fields of Nallanikunnu of Chenneerkara Panchayat were surveyed for the preparation of the economic profile of these farmers. Cost of cultivation is worked out using farm management concepts. The concepts of cost used in the analysis are:

- cost A1 : paid out cost - cash and kind expenses actually incurred by the cultivator. Cash and kind expenses include the following items. Wages paid to hired labour, value of seed, manure and fertilizer and insecticides, transportation charge.
- Cost A2 : Cost A1 plus rent of land taken on lease.
- Cost B : Cost A2 plus imputed value of rent on owned land and interest.
- Cost C : Cost B plus the imputed value of family labour employed on the farm.

### **Concept of profit/loss**

Profit or loss has been worked out on the basis of the various cost concepts by deducting the corresponding figures from gross income. An owner operator is concerned with gross income minus Cost A1 and a tenant operator with gross income minus Cost A2. This constitutes the return to the farm operator and his family labour. Gross income minus Cost B shows the return from family labour only. The net income arrived at on Cost C gives the pure profit or loss for the entrepreneurial work of the operator.

### **Basis of evaluation**

The following are the bases for evaluation of inputs and outputs followed in the present study.

#### **Farm labour**

Most of the labour is imputed labour valued at existing wage rate. Human labour is assessed in terms of days of 8 hours each. Gift labour is valued at the same rate as family labour.

#### **Rent paid on leased in holding**

Rent is paid for a year on a verbal contractual basis. Table 5.2 shows the distribution of sample lessee households of by size class of owned land, in 1970 at the point of origin. The proportion of households, formed earlier than 1970, was only 25.1 percent (who owned less than 30 cents of land). About 72 percent were marginal farmers owning 31–300 cents of land. All the households formed during and after 1970 were of landless

people, who got ownership right on land consequent on Land Reforms Act of 1970. Most of them own 10-20 cents of land.

**Table 5.2 Percentage Distribution of Sample Lessee Households by Size Class of Owned Land at the Point of Origin (1970)**

(in cents)

Year of Origin	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-300	Row Total
Before 1970	9.4	9.4	6.3	15.6	15.6	18.8		6.3	3.1	3.1	9.7	32 (25.6)
1970 & After	56	28	16.1									93 (74.4)

**Table 5.4 Operational Holding by Type of Labour (in cents)**

Type of Labour	Land less	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-300	Total
Cultivators	2	12	10	11	2	5	4		2	1	2	2	53 42.4%
Agri. Labour/ Casual Labour	2	24	9	4	3		2						44 35.24%
Others		15	10	1	1								27 21.06%
Owner Cultivator						1							1 0.8%
Column Total	4 3.2	51 40.8	29 23.2	16 12.8	6 4.8	5 4	7 5.6	0 0	2 1.6	1 0.8	2 1.6	2 1.6	125 100

The time profile is prepared on the basis of the year in which lease-in-cultivation had begun. The proforma prepared to conduct the survey generated sufficient data for the preparation of the time profile. Three questions included in the proforma, were the following: (1) for how many years were you doing lease-in-cultivation? (2) When did you start off with independent operational holding and what was the area under operation? (3) How much land did you start off with?

The time profile of the formation of households may be seen from the row totals. Only 14 percent of the households had come into existence by 1970 whereas 62 percent had come into existence between 1991 and 2000.

**Table 5.3 Percentage distribution of sample lessee households by size class of owned and operated area at the point of origin (1970) and by the year of origin of lease**

(in cents)

Year of Origin	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-300	Row Total Area	Average Owned	Average Leased Area
Up to 1970	5.6 14.3	11.1 4.6	16.7 12.0		5.6 14.3	16.7 42.9	5.7 20.0	5.6 100.0		11.1 50.0	22.2 80.0	18 14.4	52.3	19.7
1971-80		12.5 2.3	50.0 16.0	25.0 11.1						12.5 25.0		8 6.4	15.6	17.1
1981-90	9.1 28.6	18.2 9.1	27.3 24.0	27.3 33.3	9.1 28.6	4.6 14.3	4.6 20.0					22 17.76	15.1	14.5
1991-00	5.2 57.1	48.1 84.1	15.6 48.0	13.0 55.6	5.2 57.1	3.9 42.9	3.9 60.0		1.3 100.0	1.3 25.0	2.6 33.3	61.6 61.5	17.0	11.0
Column Total	7 5.6	44 35.2	25 20.0	18 14.4	7 5.6	7 5.6	5 4.0	1 0.8	1 0.8	4 3.2	6 4.8	125 100.0		

During the seventies and the eighties 6 percent and 18 percent households had undergone distributional changes. Seventy percent of the households of all years had come under three size classes namely 11-20 cents, 21-30cents and 31-40 cents i.e. the number of lessees are the highest under these groups. The total area under lease has been decreasing but the number of households engaged in lease cultivation is increasing. It shows that households could not afford to lease in large areas due to lack of finance. Further, a shift has taken place in the category of households engaged in lease cultivation. An upward mobility of the households engaged in lease in cultivation is observed in the study.

Table 5.3 depicts the type of operational holding and the type of labourers engaged in farming activities. It reveals that a new set of labour class has taken up lease operation. The lessors and lessees in agriculture of the 'eighties are no more in cultivation. Incidence of high unemployment and shift in the social expectation of the younger generation may be the factors which have given place to the emergence of a new pattern of labour. Cultivation is undertaken on a commercial basis, and the items cultivated are those which have high market demand.

A cultivator, according to the definition by census 2001, is one who is engaged in cultivation of land owned or held from government or held from private persons or institutions for payment in money, kind or share. Cultivation involves ploughing, sowing, harvesting and production of cereals and millet, crops such as paddy, wheat, jower, bajra, ragi, etc. and other crops such as sugar cane, tobacco, groundnuts, tapioca etc. and pulses raw jute and kindred fibre crop, cotton cinchona and medicinal plants, fruit-growing, vegetable-growing or keeping orchard or groves etc. An agricultural labour is one who works in another person's land for wages in cash or kind or share. An agricultural labour has no right of lease or contract on land on which he/she works. Others are all those who are engaged in any economic activity but are not cultivators or agricultural labourers.

**Table 5.5 Land Area Owned by Lessors in Different size classes**

Size Class (Cents)	No. Of Persons	Percentage
00-50	18	18.95
50-100	21	22.11
100-150	18	18.95
150-200	16	16.84
200-250	10	10.53
250-300	3	3.16
300-400	2	2.11
400-500	4	4.21
500-600	3	3.16

**Table 5.6 Wetland Area Kept Fallow by Lessors in Different Size Classes**

Size Class (Cents)	No. Of Persons
00-50	4
50-100	9
100-150	4
150-200	2
200-250	1
250-300	1
300-400	0
400-500	1

The demand for labour is influenced, inter alia, by the land holding structure and the cropping pattern (Nair 1999). The structure of land holdings of the lessor class in the study area is given in Table 5.5. The structure of the land holdings of the 83 lessors reveals that 88 percent of the holdings are less than a hectare in size and that only 12 percent of holdings are above 2 hectares. A highly skewed distribution of land towards sub-marginal and marginal holdings reduces the demand for hired labour as family labour substitutes to a very great extent hired labour requirement. Among the different size classes 22 persons are keeping their land fallow. Of these 20 persons land holdings are below one hectare in size (Table 5.6).

Most owner cultivators of 1960s and 70s, who belonged to the lower middle class proceeded to cultivate their holdings intensively to sustain themselves and produce a substantial marketable surplus. Their socio-economic positions are of a very solid nature. Their children have mostly gained employment in and outside India. Very few of them continue as second-generation farmers. Remittances from various parts of the world have strengthened their financial base and many families have a changed priority for land use. Cultivation for them is not for earning a livelihood but for maintaining the ownership right. The land holdings structure of lessees explains the safety on the part of the lessor for leasing and the land leasing is mainly for one crop year only. The primary analysis of the data reveals that there are only 4 land hungry persons altogether in the three study areas (Table 5.4). Two are fulltime lease land operators and two are agricultural/casual labourers doing part time lease land cultivation. The socio-economic status of agricultural labourers in general and that of the oldest labourer living in the study area is given in chart-5.2. According to table 5.7 and 5.8 there are 125 lease land cultivators among the different size classes. The row total explains that 53 are cultivators 44 are agricultural/casual labourers, 27 are others. There is one owner cultivator doing vettilla. Table 5.7 reveals that among the different size classes of 10 each, there are 125 vettilla cultivators. Among them 64 persons comes under the size class 1-10. In alternate years 25 each do banana and tapioca cultivation.

**Chart 5.2 Transect of Historical Events**

Before 1940	<ul style="list-style-type: none"> <li>↻ Landlord-tenant relationship.</li> <li>↻ Bonded Labour.</li> <li>↻ Agricultural work of one household.</li> <li>↻ Cattle-rearing.</li> <li>↻ Labourer under the protection of the Landlord.</li> <li>↻ Wage</li> <li>↻ <i>Mundu</i> (cloth)</li> <li>↻ <i>Kanji</i> and <i>Kappa</i> (rice gruel and tapioca)</li> <li>↻ Family to attend to work for one day a week.</li> </ul>
1940-1950	<ul style="list-style-type: none"> <li>↻ Scars are made on the body.</li> <li>↻ Permanent work.</li> <li>↻ Work for only one Landlord.</li> <li>↻ Wage <ul style="list-style-type: none"> <li>· <i>Patham</i></li> <li>· <i>Chakram</i> (cash)</li> </ul> </li> <li>↻ No protection of tenant by Landlord.</li> </ul>
1950-1960	<ul style="list-style-type: none"> <li>↻ Labour emancipation.</li> <li>↻ Wage in money terms.</li> <li>↻ Freedom of work.</li> </ul>
1960-1985	<ul style="list-style-type: none"> <li>↻ Organised labour and labourer.</li> <li>↻ Powerful trade unions.</li> <li>↻ <i>Karshaka Thozhilali</i> Pension (Pension for Agricultural labour).</li> <li>↻ Fixed work time.</li> <li>↻ Fixed wage rate.</li> </ul>
1985-1995	<ul style="list-style-type: none"> <li>↻ Trade union became less powerful.</li> <li>↻ Trade union lost recognition of labour.</li> <li>↻ Diversification of work.</li> <li>↻ Decline of cropped area of annual and seasonal crops.</li> <li>↻ Migration of labour to non-farm activities.</li> </ul>
After 1995	<ul style="list-style-type: none"> <li>↻ No work security.</li> <li>↻ Decline of labour days.</li> <li>↻ Livelihood problems.</li> <li>↻ Wide spread leased-in cultivation.</li> <li>↻ Rise in standard of living.</li> </ul>

**Terms of lease**

Lease is entered into mainly on a yearly basis. There is no organized pattern of lease practices as it is legally banned by the land legislation act. Lessors lease their land only for a single year at a time. Rent is paid in advance in most cases and, in a few cases, in instalments. Table 5.8 shows the distribution of households on the basis of the rent paid

for their leased out land. About two-thirds of the lessees who come under the size class 1-10 cents pay a rent from Rs. 500 to Rs.2000. For the size class 11-20, lessees (who constitute 22 percent) pay rents between Rs. 1000 and Rs 4000. When we take the row total 44.8 percent of the lessees pay a rent of Rs. 1000 for the first three size classes. Lessees could not move to higher size classes, as there is financial shortage, lack of risk insurance coverage and unorganized cultivation practices.

**Table 5.7 Distribution of sample households by the size class of their operational holdings and by the type of cultivation**

Type of Cultivation		1-10	11-20	21-30	31-40	41-50	51-60	Total
Vettila	Number	80	26	10	3	5	1	125
	Percent	64.00	20.80	8.00	2.40	4.00	0.80	100.0
Banana	Number	12	6	4	2		1	25
	Percent	48.00	24.00	16.00	8.00		4.00	100.0
Tapioca	Number	8	8	5	1	2	1	25
	Percent	32.00	32.00	20.00	4.00	8.00	4.00	100.0
Total	Number	100	40	19	6	7	3	175
	Percent	57.14	22.86	10.86	3.43	4.00	1.71	100.0

*Vettila* (betel) occupies a place of reverence in our daily life. In our state from very olden days, there existed the practice of chewing *vettila*. *Thamboolam* (chewing betel and nut) after every feast is our tradition. Arecanut and coin folded in *vettila* is used for offering *Dakshina* in marriage ceremonies and in poojas in temples. Children on *Vidyarambham* (initiation to education) also offer *Vettila*, Arecanut and Coin as *Gurudakshina* (obeisance to Guru) Bleached *vettila* which contains reducing sugars and vaporizing oils and gives sweet scent and taste is used in Ayurvedic Medicines. The price of bleached leaves is thrice that of green ordinary leaves. Hence in some states small *vettila* bleaching units are in operation.

Betel vines are highly remunerative. After 90 days of planting *vettila* begins to yield a steady income for about six years on a continuous basis.

Pandalam, in Pathanamthitta district, is a very vibrant market for *vettila*. Traders from different parts of the state come here to purchase *vettila* from farmers. It is marginal farmers and agricultural labourers who cultivate *vettila* in preference to vegetables. Since *vettila* has both a domestic and international market.

Karnataka, West Bengal, Tamil Nadu, Andhra Pradesh, Assam and Uttar Pradesh cultivate betel vines besides Kerala. In Kerala about 400 hectares are under this crop. It is a crop that needs great care and attention. It needs appropriate temperature, humidity, shade, support plants and timely and adequate manuring. Appropriate atmospheric conditions for



vettila cultivation are found on the south-western hot temperate, coastal zone and on the hills of Assam. Cultivation of betelvines is done in wetlands also in tiny plots and that too by lessee farmers, in our study area. The maximum duration of this wetland cultivation is twelve to fifteen months.

**Table 5.8 Two-way distribution of households on the basis of rent paid**

Rent	1-10	11-20	21-30	31-40	41-50	51-60	Total	Percentage
500	5 1.00						5	4.00
1000	48 85.71	7 12.50	1 1.78				56	44.80
1500	17 60.71	9 32.11	1 3.51	1 3.51		28		22.40
2000	9 52.94	7 41.18	1 5.88				17	13.16
2500		3 37.50	31 37.50	12.50		1 12.50	8	6.40
3000		1 20.00	2 40.00		2 40.00		5	4.00
3500			2 50.00		2 50.00		4	3.20
4000		1 50.00		1 50.00			2	1.60
Total	79 63.20	28 22.4	10 8.00	3 2.40	4 3.20	1 0.80	125	100.00

### **Economics of Betel Vine Cultivation**

The total area of land under betel vines in our study area 13.65 acres for the 125 farmers interviewed. Taking Rs. 4 as the price per bundle of Vettila.

Gross income per cent	= Rs. 1934.21
Cost A1(Paid out Cost) per Cent	= Rs. 577.63
Cost A2 (A1+Rent Paid) Per Cent	= Rs. 692.49
Cost B (A2+Rent of Owned Land	= Rs. 692.49
Cost C (A2 or B +Imputed value of labour)	= Rs 1504.91
Profit of the tenant operator per cent	= Rs 1241.73
Return from imputed labour (Cost C-B)	= Rs 812.42
Pure profit	= Rs 429.31

The average price per bundle is arrived at by using a PRA tool. A group of 12 farmers explained the whole process of planting, stage by stage viz. terracing of land, planting of seedlings, constructing support pandal, putting shades, watering the plants and plucking the leaves. There are mainly two types of cultivation 'Edavam vettila' and 'Thulam vettila'. *Edavam vettila* is planted during May-June and *Thulam vettila* during August-September.

*The report of the farmers for the Edavam vettila was as follows.*

The seedlings are planted in May-June. There is no yield for the first three months of June, July, and August.

**Table 5.9 Yearly Price Income Analysis – Edavom Cultivation**

Month	Bundle	Price/Bundle	Week	Price
June	—	—	—	—
July	—	—	—	—
August	—	—	—	—
September	10	10	4	400
October	35	12	4	1680
November	50	15	4	3000
December	140	8	4	4480
January	240	5	4	4800
February	300	2	4	2400
March	355	1	4	1420
April	25	5	4	500
May	10	12	4	480
Total	1165			19160

Total Bundle:  $(1165 * 4) = 4660$

Average Price:  $(19160 / 4660) = \text{Rs. } 4.11$

The price of vettila during 1999-2000 was low when compared to prices during previous years. Even with low prices, a farmer got, on the average, Rs. 4.11 per bundle, which yielded a total profit of Rs. 1441.73 per cent.

The average number of labour days an agricultural labourer was able to find from lease-in cultivation constituted his direct gain.

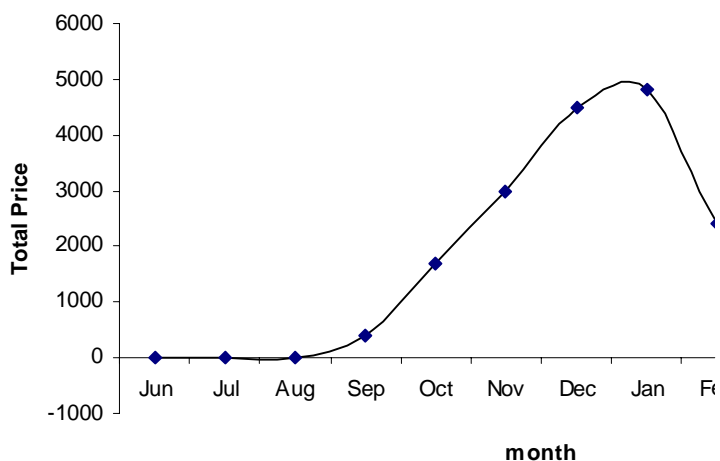
Profit of the tenant operator = Rs. 1242.00 at a daily wage rate of Rs 125.

Daily wage rate = Rs. 125/-

Average Price per bundle =  $20520/4100 = \text{Rs. } 5$

Average number of Labour days per month  $1242/125 = 10$  Days.

**Graph 5.1 Time Profile Showing *Edavom* Cultivation**

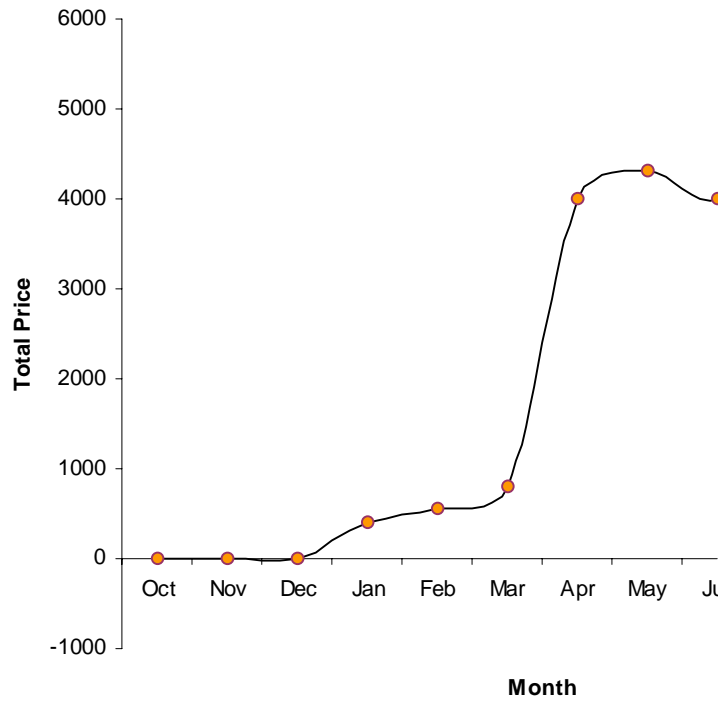


Most of the lessees prefer *Edavom* Cultivation because June, July, and August are lean months during which they hardly get labour days, whereas the *Thulam* cultivation starts at the peak season of employment during which they get up to about 15 days of work per month on an average.

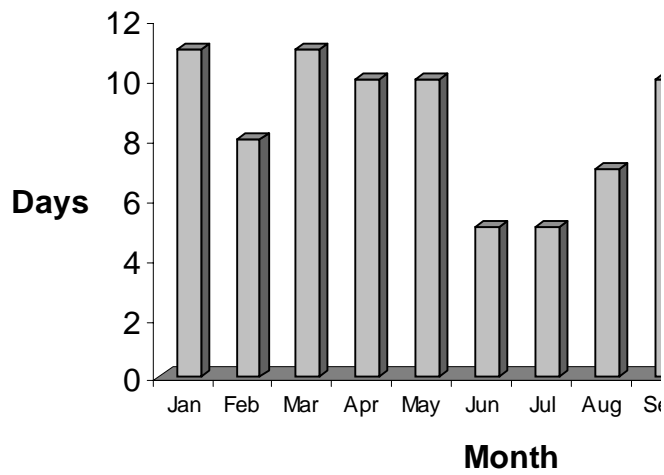
**Table 5.10 Yearly Price Income Analysis – *Thulam* Cultivation**

Month	Bundle	Price/Bundle	Week	Price
October	—	—	—	—
November	—	—	—	—
December	—	—	—	—
January	20	5	4	400
February	70	2	4	560
March	200	1	4	800
April	200	5	4	4000
May	90	12	4	4320
June	200	5	4	4000
July	210	6	4	5040
August	25	10	4	1000
September	10	10	4	400
Total	10	25	4	4100

**Graph 5.2 Time Profile Showing *Thulam* Cultivation**



**Graph 5.3 Annual Days of Employment of a Wage Earner**



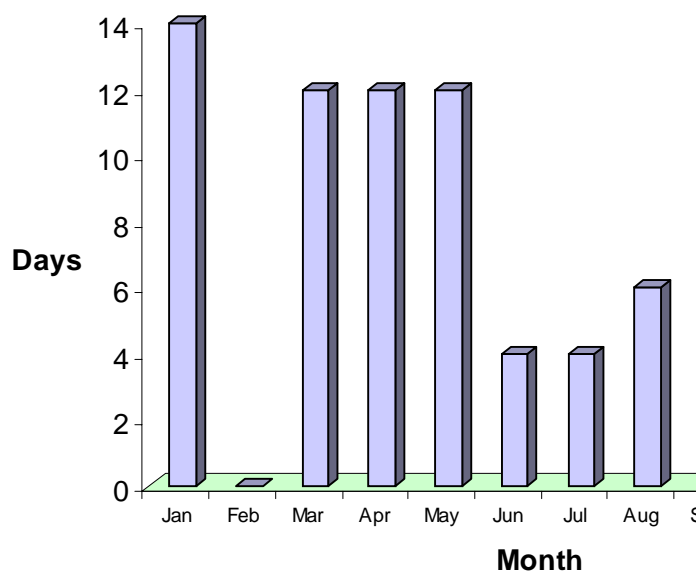
**Table 5.11 Average Income Earned by a Wage Earner**

Month	Daily wage	No. of days	Total income
January	125	11	1375
February	125	8	1000
March	125	11	1375
April	125	10	1250
May	125	10	1250
June	125	5	625
July	125	5	625
August	125	7	875
September	125	10	1250
October	125	12	1500
November	125	11	1375
December	125	11	1375

Average income = Rs. 1156

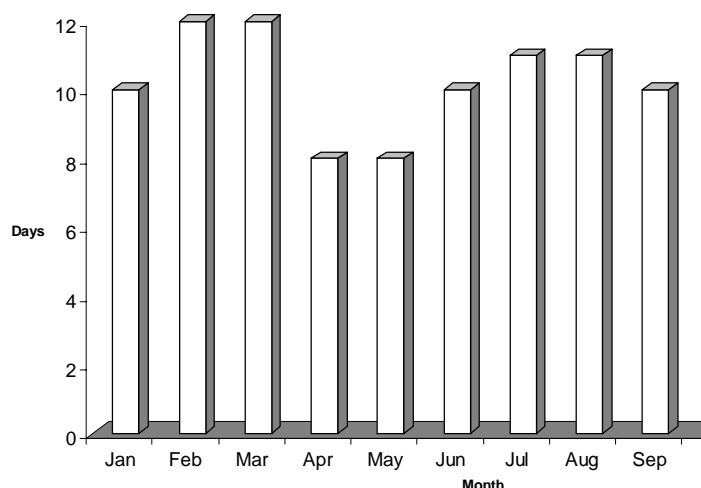
Average labour days per month = 9 Days

**Graph 5.4 Annual Labour Days of Employment of a Rubber Tapper**



On an average, a lessee farmer gets 19 labour days per month. The net income per month is about Rs. 2500. The profit of the lessee including his imputed labour is Rs.1242. For most of the farmers lease-in cultivation is part-time occupation.

**Graph 5.5 Annual Labour Days of Employment of a Hollowbrick Company Labourer**



The entrepreneurial ability of a tenant operator to go in for lease-in cultivation is accepted by the end of the first episode of cultivation. If he gets the same land for cultivation for a second time, some of the paid out costs and a sizable amount of imputed labour will be less for him than during the initial episode. On the whole a tenant operator goes in for a second time cultivation with more vigor, vitality and confidence.

The economic and social mobility of 25 farmers who are doing plantain and tapioca cultivation has also been studied.

The pure profit for the entrepreneurial work of the tenant operator and his profit including the return from imputed labour for banana and tapioca are as follows.

**Banana cultivation**

Gross income/cent	=	Rs. 523.06
Cost A1	=	Rs. 125.08
Cost A2	=	Rs. 218.68
Cost B	=	Rs.218.68
Cost C	=	Rs.387.50
Cost A2 and B are the same because all farmers are lessees.		
Profit of the tenant operator	=	Rs.304.38
Pure profit	=	Rs. 135.56

### **Tapioca cultivation**

Total Lessees	:	5
Gross income	=	Rs.343.43
Cost A1	=	Rs. 43.05
Cost A2	=	Rs. 79.92
Cost B	=	Rs. 79.92
Cost C	=	Rs. 237.49
Profit	=	Rs.261.52
Pure profit	=	Rs. 105.94

### **Opinion of trade union leaders**

Unionisation of the labour force meant also the organisation of a vast mass of workers in the informal sectors of the economy. The process of unionization, which began in the early ' thirties, made hardly any distinction between urban and rural workers, workers in informal and formal sectors, men and women, and primary, secondary and tertiary sectors.

INTUC, CITU, AITUC and Karshaka Morcha of BMS are strongly in favour of lease-in cultivation of fallow land as it enhances the number of days of employment and the productivity of wetlands in general. The weakening of trade unions has had a positive effect on the development of the agricultural and the industrial sectors. The formation of Thozhil Sena at the panchayat level is advocated by Peelipose Thomas of INC and Prof. T K G Nair of CPI (M). They are, however, against institutionalising the process of lease-in cultivation. According to them, there has been a 50 percent increase in the number of labour days of the lessee farmers. The socio-economic status of the working class as a whole and the marginalised farmers in particular has been enhanced as a result of the increase in the number of labour days of employment.

### **Case study analysis**

Simon (82 years) is unable to trace the background of his own Betel vine cultivation. From the time his memory began, his father had been doing betel vine cultivation. In those times, both garden lands and wetlands were easily available on lease at low rent. But at present only wetland is available on lease. It means that almost the whole of garden land is under commercial crops. Some of the wetlands have also been used for rubber cultivation. Rotation of crop is practised for wetland cultivation. Crops like plantain, tapioca, bittergourd, ginger, green chilly are being cultivated in wetlands on rotation basis. But betel vine is cultivated on a continuous basis in a few plots. Simon and his three sons are putting a combined effort at cultivation. Ill-health due to old age is not allowing Simon to participate actively in cultivation. He has two acres of garden land and 60 cents of wetland. He had only 10 cents of garden land to begin with. The additions to wealth are mainly from Betel vine cultivation. The social status that the household now enjoys is also the result of betel vine cultivation. Simon's only daughter was married off decently and is leading a comfortable life. His three sons have pucca houses. The educational status is limited to primary school for his first

three sons; but his two younger sons had higher education and are employed at Mumbai. Simon extended financial help to them for the purchase of flats at Mumbai. At present Simon and family have cultivation of 50 cents of leased-in wetland in addition to cultivation of own land. His fourth generation has now entered into agriculture. The main source of income of the households is betel vine and rubber.

**Garden land- Cultivation Cost Revenue Analysis Per Cent**

Gross Income	:	2880.00
Cost A1	:	715.60
Cost A2	:	715.60
Cost B	:	895.60
Cost C	:	1477.60
Profit of the tenant operator	:	2164.40
Pure profit for the entrepreneurial work	:	1402.40
Total Profit (Pure profit + Imputed labour)	:	1984.40

**Wet land lease- Cost Revenue Analysis Per Cent**

Gross Income	:	2400.00
Cost A1	:	618.00
Cost A2	:	658.00
Cost B	:	658.00
Cost C	:	1029.00
Profit of the owner operator	:	1742.00
Pure profit for the entrepreneurial work	:	1371.00
Total Profit (Pure profit + Imputed labour)	:	1742.00



## 6. Conclusion

In Kerala, agriculture and its labour are at the cross roads. On the one side, during the past three decades, the agricultural sector has undergone wide changes in terms of ownership and distribution of land holdings, cropping and land use patterns, cultivation practices, productivity and intensity of cultivation. On the other side, the state economy is characterized by a high wage share due to predominance of cultivation of cash crops, labour-intensive agro-processing activities in industry and bloating of the service sector consisting of trade and transportation and other social services. Ownership right was conferred on the landless labourers by the Agrarian Relations Act of 1970 which resulted in wide distributional changes in the landholding pattern between the 'seventies and 'eighties. Inter-generational economic mobility of households increased leading to a small reduction in intra-generational inequalities in land distribution. During 1970's and the 1980s, the incidence of tenancy became the highest among households of the self employed in agriculture. In the late 'nineties it was the highest among displaced agricultural labourers and marginal farmers. In the 'nineties, the lessors are happened to be mostly the lessees of the eighties. Kerala failed in modernizing and upgrading its labour force. There is a mismatch between labour supply and demand of labour. A shift in the socio-economic regime has produced a paradoxical situation in the Kerala economy. On the one hand, there is high incidence of unemployment and, on the other, changing job expectations of the younger generation. This shift in the social expectations of the younger generation in the rural areas and the impact of demographic transition on the labour market is zero rate of growth in the younger age group of 15 to 29 years of age who opt for agriculture. These developments have contributed to scarcity of labour in the rural casual labour market. Labourers prefer employment of high social status and regular income. The kind of resistance offered by labour unions to employers' decisions on wage and working conditions till the mid-'eighties has given way to acceptance particularly by the new entrants to the labour force. In the meantime, Kerala has lost a generation time (25 years) in modernizing and upgrading its labour-intensive occupations.

The aforesaid factors have thrown up further dilemmas in the new context of economic liberalization. When the earlier strategy of protecting current employment failed and the economy could not generate adequate new employment, the state government resorted to extensive 'Poor - Relief Programmes'. In the new context of economic liberalization the rationale of these programmes is being increasingly questioned mainly due to the financial crisis of the government. Unlike the shift of labourers from agriculture to industry, the lessee model sought to overcome the impasse' by making strong intervention in the agricultural sector through mobilization of labourers and farmers and by making use of the social and political environment which came into being with the introduction of Peoples Planning in the state. Change in the mode of labour identified in the study area brought about a transformation in the rural community by way of increase in the number of labour days of employment, increase in income, shift in economic opportunity from hired to imputed labour, thereby increasing specialization in livelihood, reduction in out-migration of rural labour in search of work and adoption of cultivation of unorthodox crops.

The widespread cultivation of vettilla in the three panchayats reveals that people concentrate in the cultivation of crops for which there is a viable and profitable market. The market for vegetable items is highly unstable. Further, the Kerala vegetable market is under the clutches of traders who collaborate with farmers of Tamil Nadu.

Absentee landlordism had led to the Land ceiling Act of 1969. For a few years thereafter there was intensive use of land for agricultural purposes. Eventually, a class of absentee land holders emerged. These absentee owners helped the formation of the lessee development model which resulted in increase in production and productivity and opening up of employment avenues in the agricultural sector. Cultivation on leased-in land has become a widespread phenomenon throughout the State.

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