

INDUSTRIAL DISTRIBUTION OF THE WORK FORCE
IN KERALA--1961-1981

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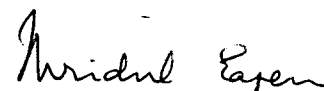
I hereby affirm that the research for this dissertation titled "Industrial Distribution of the Workforce in Kerala - 1961-81" being submitted to the Jawaharlal Nehru University for the award of the Degree of Master of Philosophy was carried out entirely by me at the Centre for Development Studies, Trivandrum.


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Trivandrum,
31-12-1989

Certified that this dissertation is the bonafide work of Bina Mary Chunkath and has not been considered for the award of any other degree by any other University.


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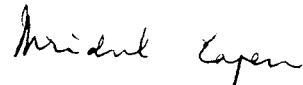
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The responsibility for any errors and omissions that might have crept into this work, is entirely mine.

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CHAPTER I
REVIEW OF LITERATURE ON
DISTRIBUTION OF INDUSTRIAL WORKFORCE
WITH SPECIAL REFERENCE TO KERALA

With rising national product and per capita income, economic development brings about certain broad changes in the structures of production and industrial distribution of work force. It has long been recognised that owing to differences in income elasticity of demand for different groups of goods and services, increase in per capita income leads to increased demand for manufactured products and services of various kinds, compared to agricultural products like food. This process, leading to change in the industrial distribution of the working force over a period of economic development, is one which, in one form or other, has interested economists and historians.

One of the theories put forward by some economists and historians is that economic progress takes place through a set of distinct stages and that each stage is characterised by a number of features unique to it. Others analyse these changes, using quantitative data, to arrive at a set of propositions regarding the actual process of structural transformation of economies, the world over. It would be worthwhile and interesting to be conversant with their ideas and theories, as our study relates to the current phase of the continuum of economic and social

development in Kerala. To some extent, the stage theorists did have in mind the structural change which was capable of being measured quantitatively, but their emphasis was more on the characterisation of a whole stage, rather than on the detailed pattern of change in the working force or national income¹.

The earliest stage theorist was probably Aristotle's disciple, Dicaearchus² of Messene (c.320 B.C) who held that the first stage was one where man lived on the gifts of nature, the second was the pastoral stage and the third, agriculture. Some later writers, like Adam Smith, suggested that manufacturing was the highest stage, then agriculture, followed by pastoral activities which was superior to hunting³.

Friedrich List, in his National System of Political Economy (first published in 1841), introduced five-stage pattern of growth. The five stages were (a) savage stage, (b) pastoral stage, (c) agricultural stage, (d) agricultural and manufacturing stage and (e) the agricultural, manufacturing and commercial stage. List did not regard this as a purely economic characterization, but held that each stage not only implied the dominance of particular branch of activity but a whole set of associated non-economic activities⁴.

However, it was only with Colin Clark and Fisher that the stage theories began to have an empirical content⁵. Fisher has three stages of development in his mind.

According to him, "in the first stage of development, effort is concentrated mainly on primary production, on agriculture, on pastoral and similar occupations". In the second stage, "secondary or manufacturing production and activities associated therewith begin to predominate" and in the third stage, resources increasingly shift to tertiary activities in which Fisher specially mentions "facilities of travel, amusements of various kinds, personal and intangible services, flowers, music, art, literature, science, philosophy, etc"⁶.

Colin Clark⁷ is more concerned with the empirical aspects of the question and seeks to relate the growth of real per capita income with a rise in the share of employment, initially in manufacturing and later, in the services sector. Colin Clark's theory differs substantially from Fisher's in that, Clark is not interested in the characterisation of stages of society, as much as in the process of change in the industrial distribution of the working force, which he explains as the result of changes in the income elasticity of demand for different products as income increases. In this, he differs from Fisher who emphasises the supply side - technological progress and the development of science and knowledge - and not the demand side. For instance, Fisher holds that the tertiary stage is reached when the problems of production in manufacturing are virtually solved, while Clark feels that the tertiary stage is that where the increase in incomes of the community leads

to a rapid growth in demand for services. Thus, while Colin Clark has a clear measurable explanatory factor (the income elasticity of demand) and a clear demarcation of sectors (agriculture, manufacturing, and services), Fisher bases himself on the growth of knowledge which is much more difficult to quantify and regards the three sectors (primary, secondary, tertiary), as both branches of activities and attributes of development.

Making a cross-section analysis of the data for a large number of countries, Colin Clark has demonstrated the validity of William Petty's Law, which states that with economic development, the proportion of the working force in the primary production diminishes and obversely, the proportions in the secondary and tertiary sectors increase. The analysis of the time series data for different countries also yields broadly the same results.

Simon Kuznets^a, pursuing this very question on a more or less larger scale and with more refined techniques of analysis, has also come out with similar results. The results of both the cross-section analysis and the time series analysis which he carried out, substantiate the hypothesis that with economic development and rising per capita income, the proportion of workers in agriculture and allied activities falls markedly, and those in manufacturing industries and services rise correspondingly. For 38 countries in the early 1950's, Kuznets finds that there is an association between the level of development (based on

real per capita income) and industrial distribution of the work force⁹. He considers seven average real per capita income classes and finds that countries in the higher classes have lower shares of agriculture and higher shares of manufacturing than countries in the lower classes of per capita income. He also shows that shares of (a) transport and communication (b) trade, banking and finance and (c) other services are positively associated with the average real per capita income of the different countries, though this relation is weak in case of other services(Refer to Table 1.1).

TABLE 1.1
INDUSTRIAL STRUCTURE OF THE LABOUR FORCE (AROUND 1950) FOR SEVEN GROUPS
OF COUNTRIES (EXCLUDING UNPAID FAMILY WORKERS)

GROUPS OF COUNTRIES BY PRODUCT										
PER CAPITA										
Average %	I	II	III	IV	V	VI	VII	I	III	V, VI
share of								&	&	&
								II	IV	VII
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. A.Sector	14.4	23.4	27.9	51.1	49.7	57.5	61.2	18.6	39.5	56.4
2. M.Sector	40.3	34.8	30.3	20.7	22.0	16.4	15.1	37.8	25.5	17.6
3. S.Sector	45.3	41.7	41.8	28.2	28.3	26.1	23.7	43.6	35.0	26.1
a) T.division	8.6	7.6	6.4	4.0	4.0	3.5	2.6	8.1	5.2	3.4
b) C.division	15.1	11.4	11.5	8.0	8.2	6.1	5.8	13.4	9.7	6.5
a&b) T & C	23.7	18.9	17.8	12.0	12.1	9.6	8.3	21.5	14.9	9.9
division										
c) OS division	21.7	22.8	24.0	16.2	16.2	16.6	15.3	22.2	20.1	16.1

Source: G. N. Kuznets "Six lectures on Economic growth", Glencoe 1959
 Table 5 on Page 44

A. Sector: agriculture and related industries.

M. Sector: Mining, Manufacturing and construction

S. Sector: all other activities. S.sector is divided into three divisions.

a) T division: transport and communications.

b) C division: trade banking and other finances

c) OS division: all remaining services.

Kuznets also shows that in the 14 countries (Refer to Table 1.2), for which fairly firm time series estimates are available, the share of agriculture in the labour force declined and the shares of manufacturing and services rose. The period, he considers, varies from country to country, mainly from 1870's to 1950's. Three important features of this shift in the industrial distribution are stressed by him. These are:

1. While the share of manufacturing in the labour force tends to rise as real per capita income increases, large increases in the real per capita income are not necessarily accompanied by large increases in the share of manufacturing.

2. In most countries, the greater part of the decline, over time, in the share of agriculture in the labour force is taken up by the increase in the share of services, not of manufacturing.

3. In most of the cases, the share of services in the labour force rises more than that of manufacturing.

TABLE 1.2

LONG TERM CHANGES IN THE DISTRIBUTION OF LABOUR FORCE

(IN PERCENT)

Country		Percentage Share In The Labour Force		
		A Sector	M Sector	S Sector
U.K	1911	12	43	45
	1951	5	47	48
France	1866	52	29	20
	1950	33	34	33
Germany	1882	42	36	22
	1933	29	41	30
Netherlands	1909	28	35	37
	1947	19	33	48
Norway	1875	59	19	22
	1950	29	35	36
Sweden	1910	46	26	28
	1950	20	41	39
Italy	1871	62	24	14
	1954	41	31	28
Hungary	1908	59	17	24
	1941	50	23	27
Canada	1871	50	13	37
	1950-53	21	35	44
U.S.A	1870	50	25	25
	1950	12	35	53
Union Of S.Africa	1911	59	16	25
	1946	47	20	33
Japan	1877,1882	83	6	11
	1950	48	21	31
Austria	1871	37	33	30
	1933	22	35	43
New Zealand	1874	31	41	28
	1936	25	29	46

Source: Simon Kuznets, Six Lectures On Economic Growth, Glencoe, 1959, Table 6, pp 50-52.

Note that labour force in this table include unpaid family workers.

Kuznets further points out the possibility of a large proportion of working force in low income countries being engaged in services activities. The pressure of population on land and the surplus labour force in the less developed countries may mean a movement into services activities, since some of them demand little capital and yet provide some modicum of living (eg. peddling, cart transport, personal services of various description) and since employment of this surplus in the M sector (manufacturing) is inhibited, partly by capital scarcity and partly by competition of the M sector in the more developed countries¹⁰. Kuznets proceeds to elaborate this theme; "In the developed countries a rise in the share of S sector (services) in the labour force may be viewed as due largely to demand originating because of a shift towards more highly productive organization in the A (agriculture) and M (manufacturing) sectors and is in a sense necessary for the latter". In other words, the shift of the labour force towards the S sector is an indispensable concomitant of the movement towards higher productivity levels throughout the economy. In the less developed countries, there may be long periods of rise in the share of S sector in labourforce, not because it is a necessary complement to increasingly higher levels of technology and productivity in the A & M sectors but also due to population pressure on land and limitations of employment opportunities in the M sector, which drive the

surplus labour into low paid service activities".

Literature available for India for this type of analysis is Jayashankar Krishnamurthy's thesis, "The industrial distribution of the working force in India, 1901-1961: A study of selected aspects".

In his work, Krishnamurthy has attempted to verify the Clark-Fisher hypothesis regarding the relationship between per capita income and sectoral distribution of working force, with reference to Indian Union and States. On the basis of both the cross section and a time series analysis, he concludes that there is a close association between the per capita income and sectoral distribution of workers in the different states of India, which is in agreement with the Clark-Fisher hypothesis. We shall now briefly review Krishnamurthy's findings, as they have considerable bearing on the situation in Kerala.

In his cross section analysis, Krishnamurthy, confines himself to the male workers¹¹, the technique used by him is "association method", apparently not different from the one used by Kuznets. Krishnamurthy has put in juxtaposition the 1960-61 per capita income in different states¹² and the percentage distribution of male workers in different activities. The states are divided into GROUP "A" and GROUP "B" states on the basis of per capita income. The rationale of this division is not clear; Kerala is included in Group "A", though its per capita income, in 60-61 is below the All-India figure¹³ (Refer to Table 1.3).

TABLE 1.3

PERCENTAGE SHARE OF SELECTED ACTIVITIES IN TOTAL WORK FORCE IN DIFFERENT STATES AND

ALL-India - 1961 (MALES)

	Per Capita Income 1960 61 @Current Prices in Rs.	Agriculture	Manufacture	Trade & Commerce.	Transport, Storage & Communic- ations.	Other Services.
GROUP "A" STATES						
Maharashtra	468.54	63.5	14.7	6.6	3.6	9.3
West Bengal	464.62	59.5	15.1	8.3	3.9	9.7
Punjab	452.31	66.6	11.3	6.6	2.4	9.3
Gujarat	373.39	67.3	12.7	6.7	2.8	8.3
Madras	334.89	64.5	13.7	6.5	2.5	9.5
Kerala	314.86	55.8	14.6	7.6	3.7	15.2
GROUP "B" STATES						
Mysore	384.71	73.4	9.7	4.7	1.5	7.5
Uttar Pradesh	297.35	77.4	8.2	4.4	1.8	6.3
Andhra Pradesh	287.81	72.2	10.7	5.2	2.1	7.3
Madhya Pradesh	285.35	78.8	8.0	3.5	1.5	5.4
Orissa	276.22	84.2	5.7	2.1	0.9	5.9
Rajasthan	267.43	78.4	6.0	4.5	1.9	6.4
Bihar	228.69	79.5	6.7	3.5	1.8	5.6
ALL-INDIA	357.78	71.2	10.1	5.3	2.3	7.9

Source : J.Krishnamurthy, "Industrial distribution of working force in India, 1901-1961:
A case study of selected aspects. pp 142,146,156,157.

TABLE 1.4

PERCENTAGE SHARE OF SELECTED ACTIVITIES IN GROUP "A" AND GROUP "B"

STATES, 1961 (MALES)

ACTIVITY	GROUP "A" STATES	GROUP "B" STATES
1. Cultivators And Agricultural Labourers	58.9	73.9
2. Live Stock, Forestry And Fishing	3.6	3.8
3. Mining And Quarrying	0.4	0.6
4. Manufacturing	13.6	7.9
5. Construction	2.3	1.6
6. Electricity, Gas And Water	0.4	0.3
7. Trade and Commerce	7.1	4.0
8. Transport, Storage And Communications	3.2	1.6
9. Other Services	10.2	6.3
1 + 2	62.7	77.7
5 + 6 + 7 + 8 + 9	23.2	13.8

Source : J. Krishnamurthy, Industrial distribution Of work force in India, 1901-1961., unpublished thesis, Delhi University, pp148-149.
The percentages have been obtained after distributing unspecified components.

In Table 1.4 we give the percentage distribution of male workers in different activities for the two groups of states. The following are the main findings of Krishnamurthy:

a) The proportion of male workers in "agriculture" ie., "cultivators" plus "agricultural labourers" to total male working force is lower in group "A" states than in Group "B" states; Group "A" states have a lower range of percentage shares than Group "B" states. The lowest value of the proportion of workers in "agriculture" in Group "B" states is higher than the highest value in Group "A" States.

b) In the case of "manufacturing", "trade and commerce", "transport, storage and communications" and "other services", the percentage share of workers is positively associated with the per capita income, since in each of these branches of activity, the lowest percentage share in Group "A" states is higher than the highest percentage share in Group "B" states.

c) In the remaining activities ie. "electricity, gas, water supply and sanitary services" and "construction", there is no positive association between per capita income and percentage share of workers.

Krishnamurthy, therefore concludes "that per capita income is positively associated with the shares of "manufacturing" and "services" and negatively, with the share of "agriculture" (including allied activities). This

is consistent with the Clark-Fisher hypothesis which holds that as an economy grows, there is a shift of workers from agriculture to manufacturing and services. The Clark-Fisher hypothesis would therefore suggest that the share of manufacturing and services would be higher and that of agriculture lower, in relatively advanced states compared to relatively backward states.

However, it is to be noted that Kerala which has the lowest per capita income among the Group "A" states has also the lowest proportion of male workers engaged in agriculture and allied activities, among all states. It remains to be explained why the share of this sector in total labour force in Kerala is significantly lower than that in Maharashtra, West Bengal and Punjab where the per capita income is substantially higher. An equally striking fact is that the share of the services sector in Kerala is out of all proportion to the level of per capita income here. The percentage of male workers in "trade and commerce", "transport, storage and communications" and "other services" to total male workers is the highest in Kerala.

TABLE 1.5
PERCENTAGE SHARE OF SELECTED ACTIVITIES IN TOTAL WORK FORCE
IN DIFFERENT GROUP "A" STATES AND ALL-INDIA 1961 (MALES)

Group "A" States	Per Capita Income 1960 - 61 @Current Prices in Rs.	Agriculture	Manufacture	Trade & Commerce, Transport, Storage & Communications, Other Services.
Maharashtra	468.54	63.5	14.7	19.5
West Bengal	464.62	59.5	15.1	21.9
Punjab	452.31	66.6	11.3	18.3
Gujarat	373.39	67.3	12.7	17.8
Madras	334.89	64.5	13.7	18.5
Kerala	314.86	55.8	14.6	26.5
All-India	357.70	71.2	10.1	15.5

Source : J. Krishnamurthy, Industrial distribution Of work force in India, 1901-1961., unpublished thesis, Delhi University, pp148-149.
The percentage have been obtained after distributing unspecified components.

The tertiary sector in Kerala accounts for a higher proportion of workers than warranted by the level of economic development, measured in terms of the estimated per capita income of the state (Refer to Table 1.5).

The sectoral distribution of the NDP also brings out the large share of the tertiary sector and its substantial growth during the period 1961 to 1981 (Refer to Table 1.6).

TABLE 1.6

NET DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRIES OF
ORIGIN IN KERALA FOR 1960-61 & 1980-81,
@ 1970 - 71 CONSTANT PRICES

INDUSTRY OF ORIGIN	60 - 61	80 - 81
TOTAL	62575	162504
1. Agriculture, Forestry And Fishing	31545 (50.41)	63125 (38.85)
2. Mining And Quarrying	91 (0.14)	150 (0.09)
PRIMARY SECTOR	31636 (50.55)	63275 (38.94)
3. Manufacturing	8886 (14.20)	25227 (15.52)
4. Construction	1289 (2.06)	5749 (3.54)
5. Electricity, Gas And Water	505 (0.81)	3432 (2.11)
SECONDARY SECTOR	10680 (17.07)	34408 (21.17)
6. Transport, Storage & Communications	3065 (4.90)	10045 (6.18)
7. Trade, Hotels & Restaurants	7063 (11.29)	18716 (11.21)
8. Finance & Real Estate	2304 (3.68)	7250 (4.46)
9. Public Administration & Defence Services	2781 (4.44)	9870 (6.07)
10. Other Services	5046 (8.06)	19440 (11.96)
TERTIARY SECTOR	20259 (32.37)	64821 (39.88)

Sources: Statistics For Planning, 1977 and 1986, Department Of Economics And Statistics, Trivandrum, Government Of Kerala. Figures in brackets denote percentage share in each activity.

In the light of this exceptional type of development, Kerala is today being pointed out by a number of economists and others as a different model, where without any fundamental change in its economy or significantly higher degree of industrialisation, but through an emphasis on services such as health, education, public distribution etc., there has been progressive improvement in terms of the "quality of life of the people". Much of the literature on this aspect came about, after the case study¹⁴ on Poverty, Unemployment and Development Policy by the Centre for Development Studies was published in 1975.

It was found in the Centre's study that higher labour mobility in Kerala has taken two forms : (i) greater movement away from agriculture to other sectors of economic activity within the state and (ii) large-scale migration from the state to the rest of India as well as to other parts of the world. No reliable estimates are available about the latter, except that in 1965, over 0.5 million were reported as having left, of whom over 0.4 million had left "for taking up work"¹⁵. Inter-sectoral movement within the State are easier to analyse. Table 1.7 presents, in summary form, the available data on inter-sectoral distribution of the working force for the period 1901 - 1971.

TABLE 1.7

KERALA : SECTORAL DISTRIBUTION OF WORKING FORCE 1901 - 1971.

SECTORS	1901	1911	1931	1951	1971	
PRIMARY	MALES	64.2	65.1	59.8	55.9	55.0
	FEMALES	57.5	56.1	29.5*	56.8	59.3
SECONDARY	MALES	15.2	14.3	15.0	17.5	16.5
	FEMALES	25.4	27.3	16.4*	27.3	28.8
TERTIARY	MALES	20.6	20.6	25.2	26.6	28.6
	FEMALES	17.1	16.6	54.1*	15.9	20.0

SOURCE : Centre For Development Studies, " Poverty, Unemployment And Development Policy-- A Case Study Of Selected Issues With Reference To Kerala." p.79, Orient Longman, New Delhi, 1977.

- * The reason why the estimates for 1931 Females are out of line with those for other years is that in 1931 a large number of women, who had apparently not been recorded as workers in the previous Census of 1921 because they were "women doing manual work at house-keeping", were classified as workers engaged in "domestic services." [Census of India, 1931, Volume XXVIII, Travancore, Part I, Report, pp. 228-231].

The study indicated that the share of the primary sector in the total working force has fallen perceptibly over the period; in fact, to a lower level than in most economies at comparable levels of per capita income. However, this has been accompanied by only a marginal increase in the share of the secondary sector. The tertiary sector has shown the most rapid growth¹⁶. According to the study, this shift from primary to tertiary sector is explained in part by the high density of population in the state, the difficulty of absorbing larger numbers in agriculture, and the growing dependence on contractual labour. Development of an extensive network of transport, communications and power, health and education, might have also contributed as positive factors for shift from primary to tertiary sector.

Interestingly, Joan. P. Mencher¹⁷ in her perceptive paper, "The Lessons and Non-lessons of Kerala" tries to draw our attention to the widespread misunderstanding of the situation-- that the quality of people's lives observed in the field is not accurately reflected in the economist's indices. Mencher arrives at this conclusion, after examining

in detail the conditions of the agricultural labourers-- specifically, the following aspects have been examined:-

- a) health and fertility
- b) fertility and employment
- c) land reform
- d) nutrition
- e) education and literacy
- f) other public facilities.

Mencher wrote this paper to counter various statements made in the development circles about the so-called "Kerala Model" of development and its implications for the socio-economic development of the Third World countries. It is viewed by some as a "cheap model", an easy rationalization for ignoring the current dialogue about the need for resource transfers from developed to developing countries, and as a basis for the assumption that there is really no need for a radical transformation of productive basis of the society. According to them, this model offers a blueprint for effecting significant improvements in the quality of life, at an attractively low price.

Mencher concludes by saying that for an agricultural labourer, "the miracle of Kerala has not been a miracle at all". It has passed them by. In some ways, their lives are better today than in the past because they are no longer in effect agrestic slaves and are free to organise and agitate. It is now possible for them to send their children to

school. There is no denying that Kerala today has attained rather higher level of health and literacy and fairly low birth rates as a result of relatively radical social policies on the part of the Government, with support at the local level.

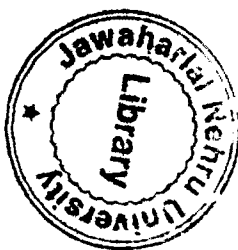
P.G.K.Paniker, and Grace Sunny¹⁸, in their paper, "Industrial distribution of working force in Kerala"[1973] observe that the growth of the tertiary sector in Kerala is not a natural concomitant of the growth of the primary and secondary sectors of the state economy. On the contrary, they feel that it appears to conform to Kuznets' observation that in some less developed countries "population pressure on land and limitations of employment opportunities in the manufacturing sector drive the surplus labour into low-paid service activities".

P.K.M. Tharakan¹⁹, in his paper, "Development Theory and Development Experience, "cites an exception to the rule of "fast growth and slow social change", in the southern Indian state of Kerala. Some of the most interesting characteristics of the exceptional pattern of Kerala's development are summed up in Table 1.8.

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Table:1.8
SELECTED INDICATORS PERTAINING TO INCOME, DEMOGRAPHIC
TRANSITION AND LITERACY

Country/area	Per capita Income (in US\$) 1980	Life Expectancy 1980	Infant mortality rates 1980	% decline in infant mortality rates 1960-1980	Literacy rates 1980	Crude birth rates **	% variations in crude birth rates 1960-80	Crude death rates 1980	Percentage variation in the death rates. 1960-1980
Tchad	120	41	149	23.6	15	44	-2.4	23	-19.6
Bangladesh	130	46	136	14.5	26	45	-15.3	18	-35.2
Ethiopia	140	40	146	16.6	15	49	- 2.8	24	-14.8
Nepal	140	44	150	23.1	19	42	- 3.4	20	-25.3
Burma	170	54	101	36.1	70	37	-12.8	14	-35.7
Kerala State	170	65	40	55.5	70	24	-30.3	6	42.7
All-India (average)	224	50	86	41.1	36	33	-20.8	14	-35.7
Mali	190	43	154	21.0	9	50	- 0.8	21	-20.1
Burundi	200	42	122	18.7	23	46	- 3.0	22	16.9
Rwanda	200	45	137	6.8	50	53	4.1	20	-26.1
Upper Volta	210	39	211	16.5	5	48	- 1.2	24	9.7
Zaire	220	47	112	25.3	50	46	- 4.6	18	-26.3
Malawi	230	44	172	16.9	25	56	5.8	22	-17.6
Mozambique	230	47	115	28.1	28	45	- 2.0	18	-30.4
Haiti	270	53	115	36.8	23	..	- 8.5	14	-29.2

NOTES: * Infant mortality rates refer to the number of children out of 1000 live births who die before the first year is completed.
 ** The Crude birth and death rates refer respectively to annual number of live births and deaths per 1000.

From Table 1.8, it is seen that Kerala has recorded a remarkable demographic transition i.e. decline of infant mortality, lower birth rates, lower death rates, at such a low per capita income level. Tharakan explains this demographic transition, as due to the development and diffusion of educational and health services.

Tharakan observes that, in spite of its fragility, this unorthodox route to development remains an instructive one. If a more equitable and effective use of resources in favour of diffusion of educational and health services is made, a number of lives, especially of children, could be saved in various low-income countries. He feels, the earlier Table would, with additional information, suffice to calculate the number of lives that could thus be saved. Again, given the human capital base that has been built up in Kerala over the years, there is the possibility of generating the momentum necessary for rapid economic growth which is needed to sustain the social gains already made.

Morris D. Morris & Michelle B. Mcalpin²⁰ look at development from a different angle. They look at it in the light of "physical quality of life Index" where longevity, health, literacy, infant mortality are taken as indicators. This is unique, in the sense that it is the first time in Indian economic history that we are in possession of a simply constructed index, with which we can measure and

monitor the impact of development programmes on mass welfare, particularly in terms of longevity, infant mortality, health and literacy. This concept has been borrowed by P. V. Rajeev¹ and he has used it in the Kerala context. However, this type of index has many limitations. One of the glaring limitations with PQLI is that for virtually all countries, the data that go into its construction are generated at long intervals, typically by decennial census.

A brief look at the sectoral distribution of work force in the southern states and All-India, shows that Kerala exhibits a very low labour absorption in the primary sector, as compared to other south Indian states and All India, both at a time point as well as change over time (Refer to Table 1.9). The labour absorption in Kerala is more in the tertiary sector.

TABLE 1.9
DISTRIBUTION OF WORKERS IN PRIMARY/SECONDARY/TERTIARY
SECTORS BY SEX IN 1961 & 1981

	ALL-INDIA	A.P	KARNATAKA	T.NADU	KERALA
TOTAL 61					
PRIMARY SECTOR	72.27%	71.72%	73.69%	63.33%	46.96%
SECONDARY SECTOR	11.70%	13.45%	12.31%	14.72%	19.34%
TERTIARY SECTOR	16.03%	14.83%	14.00%	21.95%	33.71%
TOTAL 81					
PRIMARY SECTOR	71.14%	73.50%	71.00%	65.14%	53.21%
SECONDARY SECTOR	12.44%	11.24%	13.52%	16.60%	19.43%
TERTIARY SECTOR	16.42%	15.26%	15.40%	18.27%	27.36%
FEMALES 61					
PRIMARY SECTOR	81.59%	78.89%	81.79%	70.80%	48.94%
SECONDARY SECTOR	9.58%	10.86%	9.64%	12.44%	26.11%
TERTIARY SECTOR	8.83%	10.25%	8.57%	16.76%	24.95%
FEMALES 81					
PRIMARY SECTOR	84.34%	84.37%	81.61%	80.16%	56.72%
SECONDARY SECTOR	8.30%	8.15%	11.25%	11.77%	23.41%
TERTIARY SECTOR	7.36%	7.48%	7.14%	8.07%	19.86%
MALES 61					
PRIMARY SECTOR	67.98%	67.04%	69.43%	59.44%	46.11%
SECONDARY SECTOR	12.67%	15.14%	13.71%	15.91%	16.45%
TERTIARY SECTOR	19.35%	17.82%	16.86%	24.65%	37.44%
MALES 81					
PRIMARY SECTOR	66.51%	67.33%	66.37%	58.26%	51.87%
SECONDARY SECTOR	13.89%	12.99%	14.54%	18.80%	17.91%
TERTIARY SECTOR	19.60%	19.68%	19.09%	22.94%	30.22%

- Source: 1. Census Of India, 1961, Vol.1, India, Part II-B(i), General Economic Tables, Delhi, 1965.
 2. Census Of India, 1981, Vol.1, India, Part II-B(i), General Economic Tables, Delhi, 1989.
 3. Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi.
 4. Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, Nov., 1986.

OBJECTIVES OF THE STUDY

The above discussion would single out Kerala for a closer in-depth analysis and also to seek out answers for questions such as :

- i) What has been the pattern of distribution of workers amongst the different sectors over the two decades, 1961-1981?
- ii) How far and in what manner changes in the pattern have occurred over the period? Have these changes followed the usual path of development and if not, how and to what extent is it different in Kerala?
- iii) Whether the tertiary sector in Kerala has followed any pattern of development and if so, how and to what extent it can be explained on causal basis.

Our study extends earlier analyses to the eighties, using the 1981 Census and goes a step further, by bringing out the differences in the industrial distribution of the work force at the district level in Kerala.

CHAPTER SCHEMA

In the foregoing discussion, we have adverted to the more important aspects of the available literature on the distribution of industrial workers, with special reference to Kerala. We have made an attempt in the following chapters to study the pattern and significance, as well as changes which have taken place during the two decades, from 1961 to 1981, in the distribution of workers in the State. Chapter

II deals with the concepts and the problem of comparability of Census data and attempts to establish a broad degree of comparability of the Census data of 1961 and 1981, for our purpose. Chapter III outlines the socio-economic characteristics of Kerala and tries to show, how an analysis of the available data would be of much interest. In Chapter IV, trends in the distribution of industrial workers between 1961 and 1981 are analysed. Chapter V takes up the study further, on the basis of the available data by industrial divisions and industry groups at the two-digit and three-digit levels. Finally, in Chapter VI, an overview of the study has been attempted.

FOOTNOTES

1. For an excellent discussion of the stage theories see Bert.F.Hoselitz's essay, "Theories Of Stages Of Economic Growth", in B.F.Hoselitz (ed.), Theories Of Economic Growth, Illinois, 1960, pp 193-238
2. See Hoselitz, op.cit., p 198
3. See Hoselitz, op.cit., p 199
4. See Hoselitz, op.cit., p 195
5. See Hoselitz, op.cit., provides an excellent account of Friedrich List's theories and discusses how the Clark-Fisher theory is really a modern version of Friedrich List's theory.
6. A.G.B.Fisher, "Capital And Growth Of Knowledge", Economic Journal, XLIII, 1933, pp. 379-380
7. Colin Clark, Conditions Of Economic Progress, Third edition, London 1957, Chaps IX and X
8. Simon Kuznets, Economic Growth Of Nation - Total Output And Production Structure, Harvard University Press, Cambridge. { Mass } 1971.
9. Simon Kuznets, "Quantitative Aspects Of The Economic Growth Of Nations: II, Industrial Distribution Of National Product And Labour Force", Economic Development And Cultural Change 5, July 1957, [Supplement].
10. Simon Kuznets, Six Lectures On Economic Growth, Free Press

Glencoe, Illinois, 1959

11. J.Krishnamurthy restricts his analysis to male workers only because in estimation of female workers, the interpretation of the boundaries of economic activity may not be uniform for all the states and for all Census. Hence he excludes them from his analysis.
12. Per capita income as estimated by the National Council Of Applied Economic Research and published in their "Distribution Of National Income By States, 1960-1961". [New Delhi-1965]
13. According to J.Krishnamurthy, Kerala was placed in group A category because Kerala represented particular type of economic advancement based on the development of labour intensive processing industries and ancillary services. Her extensive industrialization does not show up to an adequate extent, in terms of per capita income due to lower output per head, associated with labour intensive as opposed to capital intensive industrialization.
14. Department of Economic and Social Affairs, United Nations, Poverty, Unemployment and Development Policy - A Case Study Of Selected Issues With Reference To Kerala, prepared by Centre for Development Studies, Trivandrum, 1975.
15. "Sample Survey On Employment And Unemployment", chap-II. The report on this survey points out that "this large-scale outmigration of workers may perhaps be one of the reasons for the low labour force participation

rate in the state."

16. The percentage share of secondary sector in the total working force in Kerala has been higher throughout this period than in the remainder of India. Some of the reasons for the difference, it is interesting to note, were identified in the Census Report of 1911 on Cochin State; "The comparative preponderance of industrial population in these two States (Travancore and Cochin) is due not to infertility of the soil or its unsuitability to agriculture but to certain natural advantages possessed by them which have directed a larger proportion of people than in most other parts of India to industrial occupations. Among these may be mentioned the existence of a large extent of backwaters and canals teeming with fish life and providing occupation to a large number of fishermen, fish-curers and dealers and boats and boatmen; of valuable forests covering nearly one-half of the state and providing employment to numbers of wood-cutters, sawyers, carpenters and collectors of forest produce; and of the facilities for the cultivation of coconut palm, the raw produce of which affords scope for important and extensive industries such as toddy drawing, jaggery making, arrack distilling, oil pressing, coir making, etc."

See Census of Cochin, 1911, Vol. XVIII, Part-I, Report, p.83

17. Joan P. Mencher "The Lessons And Non-Lessons Of Kerala," Economic And Political Weekly, Special Number, October 1980.
18. P.G.K. Panikar and Grace Sunny, "Industrial Distribution Of Working Force In Kerala"(1973), Centre for Development Studies, Trivandrum.

19. P.K.M.Tharakan, "Development Theory And Development Experience : Reflections Based On An Exception To The Rule", Paper 86/93 October 1985, Centre For Development Studies, University Of Antwerp, Belgium.
20. Morris David Morris and Michelle.B.Mcalpin, "Measuring The Conditions Of India's Poor."
21. P.V.Rajeev, "Economic Development And Unemployment With Special Reference To Kerala."

CHAPTER II
DATA SOURCES AND LIMITATIONS

A significant part of the analysis of the industrial distribution of the working force in Kerala for the period 1961-1981 has been done using the decennial Census. Since the census is a periodical enquiry of great socio-economic significance, it provides a basis for analysing long-term economic and social trends. Therefore, inter-censal comparability is of paramount consideration, and whenever concepts and procedures have been altered, efforts have to be made to restore, to the extent possible, comparability between censuses.

The workers, recorded by the 1971 (All-India) census formed 32 percent of the population and this contrasted sharply with the 43 percent for the proportion of workers in the population of 1961 (All-India) census. Such a steep fall in the proportion of workers or what is called working force participation rate (WFPR) during the inter-censal period would mean that some 10 percent of the 1971 population (around 55 million) would have opted themselves out of the work force. This may not be the likely phenomenon, because in rural areas, which accounts for more than 80 percent of population, there is no evidence whatsoever indicating any sharp change in the work pattern over the inter-censal

decade. The question to ask therefore is whether the two census are comparable; whether the term "worker" has meant the same thing in both the censuses.

It is fairly well known that the concepts used for the measurement of the working force have frequently changed from Census to Census, and consequently the collected data have lost much of their value. They have attracted more attention for the controversy regarding their comparability over time, than for the light they should have shed on the trends and differentials in the size and the employment pattern of the working force. This sorry state of affairs is largely due to the fact that the economic questions in the Indian census have often been subject to frequent experimentation.

Both 1961 and 1971 censuses attempted to classify population into two broad groups-- Workers and Non-workers, but there were significant differences between the two in regard to the definition of worker, the reference period and the actual arrangement of the economic questions in the individual slips. For the purpose of understanding the concept of worker in the two censuses, the population may be classified into four broad categories:

a) Persons who perform both economic and non-economic activities but spend most of their active time in the former; in this category, fall most adult males-- for convenience, these may be called "main workers".

b) Persons who perform both economic and non-economic activities but spend most of their active time in the latter; in this category, fall some of the women, students, youngsters, etc. These may be called "secondary workers".

c) Persons who perform only non-economic activities such as housekeeping, schooling etc.; in this category, fall some of the housewives, students, etc.

d) Persons who do not perform either economic or non-economic activities; to this category belong infants, the very young and the disabled.

It is universal to consider persons in the first category as workers and those in the third and fourth categories as non-workers, as was done in both censuses. However, the two censuses differed significantly in the treatment of the second category of persons. In the 1961 census, they were included among workers along with, but not separable from the first category of persons. In 1971 census, on the other hand, they were included among non-workers but they could be distinguished from other non-workers, on the basis of their secondary activity being recorded as economic activity. This difference in the treatment is not of great importance by itself, as long as it is possible to identify this category and then add it up with the first category of persons. With this possibility, the workers of the 1961 census can be compared with the workers in the 1971 census plus non-workers with economic activity as their secondary activity. The important

question, however, is whether economic activity, wherever it was secondary activity, was completely recorded in the 1971 census, i.e., whether the second category of persons was entirely identified or a part of it was included in the third category of persons, by simply failing to probe the question on the secondary activity.

Again, in laying down the terms of reference period, both censuses found it expedient to adopt two types of reference periods: one for seasonal activities and the other for regular activities. In the 1961 census, the basis of work was satisfied in the case of seasonal activities like cultivation, dairying, livestock, household industry, etc., if the person had some regular work of more than one hour a day, throughout the greater part of the working season. In the 1971 census, the basis of work in such activities was satisfied, if the person had worked in the last one year. The change of reference period from "last working season" to "last year" and also the absence in 1971 of any condition regarding the minimum amount of work that qualifies a person for being recorded as a worker, would surely affect the measurement of the working force between the two decades. Thus we find that the 1961 and 1971 census data are not readily comparable, especially in the light of the reasonable doubts raised in the preceding paragraph. Even with adjustments, one can, at the most, roughly compare the male work force of the two decades.

In the 1981 Census, based on economic activity, the

population is divided into two broad streams viz., workers and non-workers. Workers comprise main workers and marginal workers. Main workers are those who have worked for major part of the year preceding the enumeration. Marginal workers are those who have worked some time in the year preceding the enumeration, but have not worked for the major part of the year. Non-workers are those who have not worked any time at all in the year preceding the enumeration. The reference period is one year for all workers according to 1981 Census. The change from one fortnight in 1961 Census in the case of regular employment to a whole year in 1981 Census leaves open the possibility of enumerating a larger number of workers in regular employment in 1981. Persons who are without work during the reference week or fortnight, may obtain work during other parts of the year and get classified as workers in the reference period of one year. However, analysis of National Sample Survey data on worker participation rate obtained in various rounds with different reference periods shows that the fluctuations are minor and do not bear any consistent relationship with the length of the reference period¹.

Thus, when we look at the 1981 census data, we find that it is broadly comparable with 1961 data, provided the Total Workers in 1961 Census are compared with the Main and Marginal Workers of 1981 Census data. Of course, one has to make the standard industrial classification of 60 (SIC-60) comparable to the national industrial classification of 1970

(NIC-70), by making certain adjustments. The adjustments that need to be made are largely in terms of combining categories of occupation in one census, listed separately in the other, or possibly included under other categories. Table 2.1 lists these groups, each with both its SIC-60 codes and the corresponding NIC-1970 codes, which was followed for 1981 census.

TABLE 2.1

ADJUSTMENTS REQUIRED FOR MAKING SIC(1968) CLASSIFICATION OF 1961 CENSUS COMPARABLE
TO NIC(1978) CLASSIFICATION OF 1981 CENSUS

1981		1961
DIVISION 0	AGRICULTURE, HUNTING, FORESTRY & FISHING.	DIVISION 0
DIVISION I	MINING AND QUARRYING.	DIVISION I
DIVISION II & III	MANUFACTURE AND REPAIR.	DIVISION II & III
20-21	Manufacture of Food Products.	20
22	Manufacture of Beverages and Tobacco Products.	21-22
23-26	Manufacture of Textiles.	23-27
27	Manufacture of Wood and Wood Products.	28
28	Manufacture of Paper and Paper Products, Printing, Publishing and allied Industries.	29-30
29	Manufacture of Leather and Fur Products.	31
30	Manufacture of Rubber, Plastic, Petroleum and Coal Products.	32
31	Manufacture of Chemical and Chemical Products.	33
32	Manufacture of Non-metallic Mineral Products.	34-35
33-34	Manufacture of Basic Metal, Metal Products and Parts.	36
35-36	Manufacture of Machine Tools, Electrical Machinery.	37
37	Manufacture of Transport Equipments and Parts.	38
38-39	Miscellaneous Manufacturing and Repairs.	39 (399)
DIVISION IV	ELECTRICITY, GAS AND WATER.	DIVISION V
40-41	Electricity, Gas and Steam.	50
42	Waterworks and Supply.	510
DIVISION V	CONSTRUCTION.	DIVISION IV
50-51	Construction and Allied Activities.	40
DIVISION VI	WHOLESALE TRADE, RETAIL TRADE, RESTAURANTS AND HOTELS.	DIVISION VI
60-64	Wholesale Trade.	60-63
65-68	Retail Trade.	64-68
69	Restaurants and Hotels.	882
DIVISION VII	TRANSPORT, STORAGE AND COMMUNICATIONS.	DIVISION VII
70-73	Transport.	70-71
74	Storage and Warehousing.	72
75	Communications.	73
DIVISION VIII	FINANCING, INSURANCE, REAL ESTATE AND BUSINESS SERVICES.	DIVISION VI(Part of) & DIVISION VII(Part of)
80	Banking and similar type of Financial Institutions.	695
81	Providents and Insurance.	693
82	Real Estate and Business Services.	690,691,692, 694,696,697, 699 and 85
83	Legal Services.	84
DIVISION IX	COMMUNITY, SOCIAL AND PERSONAL SERVICES.	DIVISION VIII
90	Public Administration And Defence Services.	80
91	Sanitary Services.	511
92	Educational, Scientific and Research Services.	81
93	Medical and Health Services.	82
94	Community Services.	83, 86
95	Recreational and Cultural Services.	87
96	Personal Services.	88
*98-99	International and Other Extra Territorial Bodies Services not elsewhere Classified.	89 ,90

* In Division IX of 1981, 98 (international and other extraterritorial bodies) is a very negligible portion. Hence it has been combined with 99. Division X00 and X10 do not figure in this table as these have been merged with minor group 990.
Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi.
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, Nov., 1986.

If we look at the category called "services not elsewhere classified", we find that they constitute a significant part of the working force in 1961 census. Some researchers distribute this category between "construction" and certain components of the services sector², while some others distribute it in agriculture³.

In this type of classification, the primary sector comprises divisions 0 and I, secondary sector comprises divisions II & III, IV and V and tertiary sector comprises divisions VI, VII, VIII and IX.

PROBLEMS WITH DISTRICT LEVEL CENSUS DATA IN KERALA

When India became free, Kerala was made up of the two princely states, Travancore and Cochin, and Malabar which was under the direct administration of the British. One of the first steps taken by independent India was to amalgamate small states together, so as to make them viable administrative units.

In pursuance of this policy, Travancore and Cochin states were integrated to form Travancore-Cochin State on 1st, July, 1949; but Malabar remained as a part of Madras province. Under the States Re-organisation Act of 1956, Travancore-Cochin state and Malabar were united to form the state of Kerala on 1st, November, 1956.

Some territorial adjustments had necessarily to be made on re-organisation. In this adjustment, Kerala lost to Madras (now Tamil Nadu) the taluks of Thovala,

Agasteeswaram, Kalkulam, and Vilavancode in the far south and Shencotta in the east, while it gained Malabar district and Kasargod taluk of South Kanara district in the north. The Laccadive, Minicoy, and Amindivi islands, lying off the coast of Malabar, were detached from Kerala and declared as a Union Territory.

Since Independence, the districts of Kerala have witnessed many truncations and bifurcations, much to the chagrin of empirical economists whose attempts at pointing out tendencies and drawing conclusions are ruthlessly thwarted by incomparability in the data, consequent to these modifications.

On 26th, January, 1972, a new district, Idukki, was carved out of the old Eranakulam and Kottayam districts. It comprised taluks of (a) Devikulam, (b) Udambanchola, and (c) Peeramade from Kottayam district and Thodupuzha from Ernakulam district. On 1st, November, 1980, a new district, Wayanad, was carved out of the old Cannanore and Kozhikode districts. It comprised Mananthavady taluk from Cannanore district and Vythiri taluk from Kozhikode district. Malappuram district was carved out of Kozhikode and Palghat districts, comprising Manjeri and Tirur taluks of Kozhikode district and Perinthalmanna and Ponnani taluks of Palghat district.

The existing literature on distribution of industrial work force tends to be at an aggregate level.

Almost all studies have been done at the state or All-India level. There is, however, a need to understand the problem at a more disaggregated level. A state level overview may subsume important and interesting variations at district level. The district is the basic unit of administration and therefore, it is appropriate to do a district-level analysis.

For a proper comparison of inter-district variations over time, it is necessary to take into account the frequent shifts in the boundaries of districts, which at times result in substantial change in the district's geographical area and population. A rejection of all districts which have undergone such changes would leave out a large number of districts. One way of adjusting for these shifts in a district's boundary is to combine, wherever possible, the two or more districts which have undergone reorganisation. At the same time, it is not necessary that each and every change, however minor, be taken care of. A reasonable assumption that has been made here, is that whenever a district loses or gains more than 10% of its population or area, an adjustment has to be made. The Census Reports of 1961, 1971 and 1981 give details of each and every shift (both in terms of population and area changes) that has taken place in 1961-1971 and 1971-1981 respectively. It was found that while most combinations largely comprised one or two districts, there was an occasion, where a much larger number had to be combined. The formation of such large units

does introduce assymetry, as there is then a comparison between areas of differing sizes; but the alternative of altogether excluding those areas from the analysis would leave substantial areas in the state, out of the analysis. (Refer to Table 2.2).

TABLE 2.2

COMPARABILITY OF INTER-DISTRICT VARIATIONS IN KERALA IN 1961 & 1981 CENSUSES

	Pop in 1961	Pop in 1961 adjusted to 1971 jurisdiction	%increase or decrease in 1971	Pop in 1961 adjusted to 1981 jurisdiction	%increase or decrease in 1981
All Kerala	16903715	16903715	00.00	16903715	00.00
Cannanore	1780294	1780294	00.00	1690094	- 5.34
Wayanad				275255	100.00
Kozhikode	2617189	1588468	-64.76	1483413	-13.19
Malappuram		1387378	100.00	1387378	0.00
Palghat	1776566	1369500	-29.72	1369500	0.00
Trichur	1639862	1688271	2.87	1688271	0.00
Ernakulam	1859913	1866436	0.35	1698575	- 9.88
Idukki				580235	100.00
Kottayam	1732880	1726357	- 0.38	1313983	-31.38
Alleppey	1811252	1805517	- 0.32	1805517	0.00
Quilon	1941228	1946963	0.29	1946963	0.00
Trivandrum	1744531	1744531	00.00	1744531	0.00

Source: 1. Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi.
 2. Census Of India, 1971, Series-10, Kerala, Part II B (ii), General Economic Tables, Delhi.
 3. Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November 1986.

Contd. _

	Area in 1961 (Sq Km)	Area in 1971 (Sq Km)	%increase or decrease in 1971	Area in 1981 (Sq Km)	%increase or decrease in 1981
All Kerala	38855.0	38864.0	0.02	38863.0	0.00
Cannanore	7107.0	5706.0	-24.55	4958.0	-15.09
Wayanad				2312.0	100.00
Kozhikode	5289.0	3729.0	-41.83	2345.0	-59.02
Malappuram		3638.0	100.00	3548.0	- 2.54
Palghat	5133.0	4400.0	-16.66	4400.0	1.79
Trichur	2976.0	3032.0	1.85	3032.0	0.00
Ernakulam	3209.0	3271.1	- 0.55	2400.0	-35.04
Idukki				5061.0	100.00
Kottayam	6024.0	6389.0	5.71	2204.0	-189.88
Alleppey	1800.0	1804.0	4.03	1803.0	- 0.05
Quilon	5035.0	4623.0	- 8.91	4620.0	- 0.06
Trivandrum	2194.0	2192.0	- 0.09	2192.0	0.00

Source: 1. Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi.
2. Census Of India, 1971, Series-10, Kerala, Part II B (ii), General Economic Tables, Delhi.
3. Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November 1986.

As per the criterion discussed above, we have clubbed together Wayanad, Kozhikode, Malappuram and Palghat as one single area. Again one has to club together Idukki and Kottayam, for analysis purposes. So, in effect, we have Cannanore, Trichur, Ernakulam, Alleppey, Quilon, Trivandrum as individual districts, Kozhikode, Palghat, Malappuram and Wayanad, clubbed together as a large area and Idukki and Kottayam, clubbed together as another area for our analysis purpose.

We begin our analysis by looking at the distribution of Industrial workers classified in an eight-fold classification. In the eight-fold classification, we first look at the distribution in the broad categories ie., primary/secondary/tertiary sectors. The primary sector comprises Cultivators (I), Agricultural Labourers (II), Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and allied activities and Mining and Quarrying (III). The secondary sector comprises Manufacturing, Processing, Servicing and Repairs (IV), under which comes Household Industry and Other than Household Industry. Tertiary sector comprises Construction (V), Trade and Commerce (VI), Transport, Storage And Communications (VII), Other Services (VIII).

We have restricted our analysis to the whole group rather than age-specific groups, as we find that the percentage of children, entering into the labour force, is very negligible(Refer to Table 2.3).

TABLE 2.3

PERCENTAGE DISTRIBUTION OF WORKER POPULATION IN KERALA AND ITS DISTRICTS BY AGE

		AK	CNR	KZHD&PLG MLPM&WYD	TCR	EKM	KTYM &IDKI	ALPY	QLN	TVM
TOTAL WORKERS	1961	33.31%	35.37%	33.94%	33.20%	33.19%	32.61%	33.70%	32.52%	31.00%
	1981	30.52%	29.93%	29.59%	29.63%	31.68%	32.71%	31.93%	30.27%	30.21%
TW 0 - 14	1961	0.88%	1.00%	1.20%	0.88%	0.71%	0.62%	0.71%	0.58%	0.89%
	1981	0.36%	0.48%	0.45%	0.35%	0.30%	0.29%	0.27%	0.24%	0.39%
TW 15 - 34	1961	16.57%	18.13%	16.92%	16.29%	16.60%	16.79%	15.39%	16.40%	15.51%
	1981	15.23%	15.57%	15.08%	14.19%	15.70%	16.07%	14.68%	14.48%	15.48%
TW 35 - 59	1961	13.57%	13.79%	13.57%	13.75%	13.73%	13.07%	14.03%	13.19%	12.55%
	1981	12.00%	11.96%	12.09%	12.99%	13.59%	13.31%	14.21%	13.26%	12.41%
TW 60+	1961	2.28%	2.44%	2.23%	2.27%	2.13%	2.12%	2.76%	2.34%	2.04%
	1981	2.12%	1.92%	1.97%	2.10%	2.09%	2.24%	2.77%	2.29%	1.93%
TW AGE NOT SPECIFIED	1961	0.01%	0.01%	0.01%	0.01%	0.02%	0.01%	0.01%	0.01%	0.01%
	1981	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%

Source : Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November 1986.

FOOTNOTES

1. See Report of the Committee of Experts on Unemployment Estimates, Planning Commission, Government of India, 1971, p 52).
2. This is a CSO procedure. See Central Statistical Organisation, National Income Statistics: Proposals for a Revised Series of National Income Estimates for 1955-56 to 1959-60, New Delhi, 1961, p 5. The evidence of the 1961 census shows that over 20% of persons returned under "Services not elsewhere classified" and "Activities not adequately described", were from urban areas. It is unlikely that many of these were engaged in agriculture.
3. Thorner, Alice and Daniel Thorner, Land And Labour Use In India, 1974, Bombay, Asia.

CHAPTER III

BRIEF REVIEW OF SOCIO-ECONOMIC BACKGROUND OF KERALA

Before examining the distribution of industrial workers in Kerala, let us first understand the basic characteristics of the state, which not only depicts a different pattern of work force deployment but also relatively lower worker participation ratios.

Kerala is a small state, tucked away in the South-West corner of India. It has an area of 38863 sq.kms. which represents only 1.18% of the total area of India, but it supports a population of 2,54,53,680, which is 3.71% of the total population of the country (1981). The disproportion of its area to its population is reflected in its density, which in 1981 was 655 persons per square kilometer. This is the highest density among the states of the Union, higher densities being registered only by four union territories - Delhi (4178), Chandhigarh (3948), Lakshadweep (1257) and Pondicherry (1228).

Kerala may be divided into three geographical regions, namely, highlands, midlands and lowlands. The highlands slope down from the Western Ghats which rise to an average height of 3000 feet, with a number of peaks well over 6000 feet in height. This is the area of major

plantations like tea, coffee, rubber, cardamom, and other spices. The midlands lying between the highlands and the lowlands is made up of undulating hills and valleys. This is an area of intensive cultivation; coconuts, arecanuts, tapioca, bananas, rice, ginger, pepper, sugarcane, and vegetables of different varieties are grown here. The lowlands or the coastal area, which is made up of the river deltas, backwaters and the shore of the Arabian Sea, is essentially a land of coconuts and rice. Fisheries and coir industry constitute the major industries of this area.

Kerala is a land of rivers and backwaters. Forty-four rivers (41 west-flowing and 3 east-flowing) cut across Kerala with their innumerable tributaries and branches, but these rivers are comparatively small and being entirely monsoon-fed, practically turn into rivulets in summer, especially in their upper reaches.

Kerala, with its dense population, presents complex problems in the sphere of food, employment, and housing. Almost 50% of its food requirements comes from outside the state. Owing to historical, climatic and economic reasons, the state has developed commercial agriculture more than food crops. Consequently, the state is short of foodgrains, especially rice which is the staple food of the people. Kerala has a unique cropping pattern. It accounts for 92% of India's rubber, 70% of India's cardamom, 70% of India's coconuts, 60% of India's arecanuts, 70% of India's pepper,

80% India's tapioca, almost 100% of lemon grass oil; in sharp contrast it produces only 2.38% of India's rice.

Kerala claims the highest literacy rate, the highest female sex ratio, and the second lowest growth rate of population among the states in India. According to the final population figures of Kerala Census, 1981, Kerala's population is 2.54 crores - 1.25 crores males and 1.29 crores females. The decadal (1971-81) growth rate is 19.20% compared to 26.33% in 1961-71. Tamil Nadu with 17.50% claims the lowest growth rate in the country, while Nagaland has as high a rate as 50.05% and Assam, 36.05%.

TABLE 3.1
SOME KEY STATISTICS OF KERALA IN THE CENSUS
SINCE THE FORMATION OF KERALA STATE

	1961	1971	1981
Population	16903715	21347375	25453680
Males	8361927	10587851	12527767
Females	8541788	10759524	12925913
Decadal Growth Rate (population)	24.72%	26.33%	19.20%
Sex Ratio (females/1000 males)	Total 1022 Rural 1027 Urban 997	1016 1020 997	1032 1037 1022
Literacy Rate			
Total	46.85%	60.42%	70.42%
Males	54.97%	66.62%	75.26%
Females	38.90%	54.31%	65.73%
	(1960-61)	(1970-71)	(1980-81)
Density Of Population (person/sq km)	435	549	655

Source: Census of India 1981, Series-10, Kerala, Part-II-Special,
October 1983.

WORKER PARTICIPATION RATE

Let us now compare the worker participation rate of Kerala with other south Indian states and for the country as a whole. Table 3.2 gives the worker participation rate (WPR) for 1961 and 1981 for all southern states and All-India.

TABLE 3.2
WORKER PARTICIPATION RATE IN 1961 & 1981

	ALL-INDIA	A.P	KARNATAKA	T.NADU	KERALA
TOTAL					
1961	42.98%	51.07%	45.40%	45.57%	33.31%
1981	37.55%	45.76%	40.24%	41.73%	30.52%
FEMALES					
1961	27.96%	41.32%	32.02%	31.28%	19.71%
1981	20.85%	33.54%	25.33%	26.52%	16.61%
MALES					
1961	57.12%	62.22%	58.38%	59.74%	47.20%
1981	53.19%	57.68%	54.59%	56.58%	44.86%
RURAL					
1961	45.07%	55.22%	48.76%	49.63%	33.97%
1981	39.46%	50.19%	44.07%	46.48%	31.23%
FEMALES					
1961	31.42%	46.00%	36.79%	37.11%	20.88%
1981	23.89%	40.03%	30.66%	33.55%	17.72%
MALES					
1961	58.22%	64.33%	60.40%	62.19%	47.42%
1981	54.32%	60.19%	57.18%	59.24%	45.19%
URBAN					
1961	33.48%	35.99%	34.06%	34.41%	29.57%
1981	31.41%	31.20%	30.81%	32.05%	27.42%
FEMALES					
1961	11.09%	18.74%	14.87%	14.95%	13.00%
1981	10.64%	11.81%	11.83%	11.97%	11.76%
MALES					
1961	52.40%	52.40%	51.57%	53.16%	45.98%
1981	49.70%	49.58%	48.40%	51.25%	43.42%

Source: Census Of India 1981, series I, India, Paper I of 1981, provisional population tables.

The worker participation rate is one of the lowest in the state of Kerala, as can be seen from Table 3.2. In

1961, the worker participation rate was 33.31 per cent, as compared to the national average of 42.98 per cent and in 1981, the ratio was 30.52 per cent, compared to 37.55 per cent in the country as a whole. Though there was a net accretion of 21.3 lakhs (37.88%) in the work force over the two decades, this did not keep pace with the population increase of 85.50 lakhs (50.58%) and hence the lower worker participation rate over the same period.

Report on Employment and Unemployment in Rural Areas, prepared by the Bureau Of Economics And Statistics, Trivandrum, on the basis of the 16th Round of NSS' (for the year 1960-61), gave the following reasons for the low labour force participation rate in Kerala.

1. 23 per cent of the population of Kerala are students, whereas in India as a whole the student population comes to only 7 per cent.
2. The labour participation rate for females is only 19.71 per cent in Kerala, compared to 27.96 per cent for India as a whole.
3. 20.20 per cent of females reported as students in Kerala, compared to only 4 per cent in India as a whole.

We can attribute this low worker participation rates, mainly to the unemployment problem, rampant in the state. The rate of unemployment in 1977-78 in various states in India is shown in Table 3.3.

TABLE 3.3

DAILY STATUS UNEMPLOYMENT RATES IN MAJOR STATES, 1977-78

STATE	UNEMPLOYMENT RATE	SHARE OF STATES IN ALL-INDIA UNEMPLOYMENT	SHARE OF STATES IN COUNTRY'S LABOUR FORCE
KERALA	25.69%	11.09%	3.54%
TAMIL NADU	15.59%	16.48%	8.65%
ANDHRA PRADESH	10.67%	12.37%	9.49%
WEST BENGAL	10.15%	9.08%	7.33%
KARNATAKA	9.36%	6.61%	5.78%
ORISSA	8.13%	3.81%	3.83%
BIHAR	8.01%	8.71%	8.91%
MAHARASHTRA	7.99%	10.16%	10.41%
HARYANA	6.41%	1.22%	1.56%
GUJARAT	6.24%	3.80%	4.99%
PUNJAB	4.82%	1.34%	2.27%
UTTAR PRADESH	4.12%	7.01%	13.92%
MADHYA PRADESH	3.09%	3.21%	8.50%
RAJASTHAN	2.99%	1.92%	5.26%
ASSAM	1.81%	0.47%	2.15%
ALL-INDIA	8.18%	100.00%	100.00%

Source: Planning Commission: Sixth Five Year Plan, 1980-85.
Daily Status Unemployment refers to unemployment on the basis of daily activity status.

According to Table 3.3, based on the 32nd round of the National Sample Survey² (NSS), Kerala has the highest rate of unemployment among all states in India. The state had an unemployment rate of 25.69 per cent, compared to a national average of only 8.18 per cent in 1977-78. The state having the second highest rate of unemployment is Tamil Nadu with a rate of unemployment of 15.59 per cent, whereas very low rates of unemployment were observed in the states of Assam (1.81%), Rajasthan (2.99%) and Madhya Pradesh (3.09%).

One of the major factors leading to a high level of

unemployment in the state of Kerala is the population growth. The rate of growth of population during the early decades of this century was much higher in Kerala than in other parts of the country, as seen from Table 3.4.

TABLE 3.4

DECENNIAL GROWTH OF POPULATION IN SOUTH INDIA AND ALL-INDIA, 1901 - 1981 (MILLIONS)

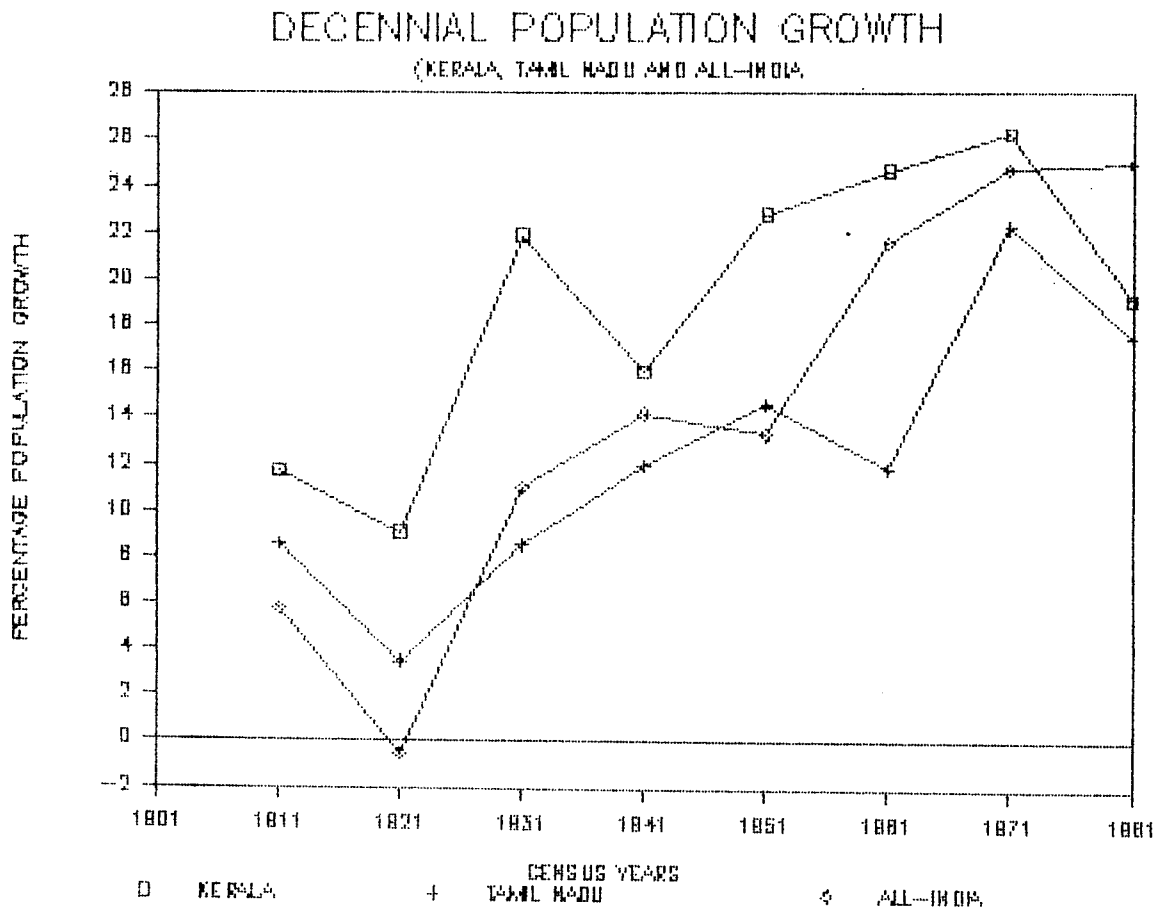
	1901	1911	1921	1931	1941	1951	1961	1971	1981
KERALA	6.40	7.15	7.80	9.51	11.03	13.55	16.90	21.35	25.45
		(+11.72)	(+9.09)	(+21.92)	(+16.01)	(+22.85)	(+24.72)	(+26.33)	(+19.20)
TAMIL NADU	19.25	20.90	21.63	23.47	26.27	30.12	33.69	41.20	48.41
		(+8.57)	(+3.49)	(+8.51)	(+11.93)	(+14.66)	(+11.85)	(+22.29)	(+17.50)
ANDHRA PRADESH	19.07	21.45	21.42	24.20	27.29	31.12	35.98	43.50	53.55
		(+12.49)	(-0.14)	(+12.98)	(+12.77)	(+14.03)	(+15.62)	(+20.90)	(+23.10)
KARNATAKA	13.05	13.53	13.38	14.63	16.26	19.40	23.59	29.30	37.14
		(+3.68)	(-1.10)	(+9.34)	(+11.14)	(+19.31)	(+21.59)	(+24.21)	(+26.76)
ALL-INDIA	238.40	252.09	251.32	278.98	318.66	361.09	439.23	548.16	685.18*
		(+5.74)	(-0.54)	(+11.01)	(+14.22)	(+13.31)	(+21.64)	(+24.00)	(+25.00)

Source : Basic Statistics Relating To Indian Economy, 1985, CSO.

Figures in brackets show the percentage growth of population.

- * Includes projected figures of Assam. Population figures exclude population of areas under unlawful occupation of Pakistan and China, where Census could not be taken.

Over the period 1901 to 1981, the population of Kerala has increased by 1.74^s per cent annually, as compared to an increase of only 1.33^a per cent for the country as a whole. The significance of this larger growth rate can be appreciated if one realises that at the annual growth rate of Kerala, the Indian population as per the 1981 Census would have to be 947.64 million, as against the actual figure of 685.18 million.



A glance at the above Table and graph also shows that Kerala entered the stage of demographic transition in the late 1940's, about two decades or so earlier than the other states of India. This was probably due to the fact that Kerala was a comparatively better developed state in the field of education, medical facilities, literacy etc., even though in terms of per capita income, it lagged behind other states of India. Due to earlier demographic transition in Kerala, the pressure of population began to be felt much earlier in the state. The decline in the rate of population growth has also set in earlier in the state. During the 1971-81 decade, the decennial population growth rate in Kerala has come down to 19.20 per cent, while it remains at a higher level of 25 per cent, for the country as a whole.

In spite of the early onset of population explosion in Kerala, the rate of growth of the economy was not different from other parts of the country. Thus, the other states in India, which experienced a time-lag of about twenty years in demographic transition, found themselves in a better position as far as the unemployment problem was concerned. The high rate of population growth and an early onset of demographic transition in the state are, therefore, crucial factors explaining the high incidence of unemployment in Kerala and this, in turn, explains the low worker participation rate in Kerala.

We have already seen in chapter I, that Kerala

exhibits a very low labour absorption in the primary sector, as compared to other south Indian states and All-India, both at a time point as well as change over time. In the following chapter, we relate this to the low worker participation rate in Kerala and try to seek answers for the particular type of development exhibited by the state.

FOOTNOTES

1. The 18th NSS round was conducted during July, 1960 to June, 1961.
2. The 32nd NSS round was conducted during July, 1979 to June, 1978.

3. & 4. Annual Growth Rate = $1 - \sqrt[n]{\frac{1981 \text{ population}}{1901 \text{ population}}}$ expressed as a percentage.

CHAPTER IV
INDUSTRIAL DISTRIBUTION OF WORK FORCE IN
KERALA IN 1961 & 1981

We begin by probing further into the reasons for low worker participation rates in Kerala. The low overall worker participation rate (WPR) in Kerala compared to other states may be due to lower participation rate in agriculture than in the rest of India. Kerala, according to the 1961 Census, had the lowest participation rate in the case of industrial categories I & II (cultivators and agricultural labourers). These constituted 38.30% of the workers in Kerala as against the national average of 69.51% in 1961. According to the 1981 Census also, the position is the same - 43.24% as against All-India average of 68.17% (Refer to Table 4.1). Among the South Indian States also, Kerala exhibits a very low labour absorption in the primary sector.

TABLE 4.1

PERCENTAGE DISTRIBUTION OF WORKER POPULATION BY INDUSTRIAL CATEGORIES
IN ALL-INDIA, A.P., KARNATAKA, T.NADU AND KERALA IN 1961 & 1981

		All-India	A.P	Karnataka	T.Nadu	Kerala
CULTIVATORS	1961	52.80%	48.12%	54.13%	42.87%	28.92%
	1981	42.84%	32.24%	38.28%	28.79%	13.68%
AGRI:LABOURERS	1961	16.71%	28.59%	16.42%	18.42%	17.38%
	1981	26.33%	38.46%	28.59%	33.51%	29.56%
* M&Q,L,F,F,H,P,O.	1961	2.77%	3.81%	3.13%	2.84%	8.66%
	1981	2.77%	2.88%	4.28%	2.84%	9.97%
PRIMARY SECTOR	1961	72.27%	71.72%	73.69%	63.33%	46.96%
	1981	71.14%	73.58%	71.88%	65.14%	53.21%
MNFG H-H INDUS	1961	6.38%	9.73%	6.61%	7.86%	8.68%
	1981	3.58%	4.74%	4.86%	4.82%	4.84%
MNFG NON H-H INDUS	1961	4.23%	2.55%	3.93%	5.53%	9.48%
	1981	7.35%	5.16%	7.59%	18.86%	12.58%
CONSTRUCTION	1961	1.89%	1.18%	1.77%	1.34%	1.26%
	1981	1.58%	1.33%	1.88%	1.72%	2.88%
SECONDARY SECTOR	1961	11.78%	13.45%	12.31%	14.72%	19.34%
	1981	12.44%	11.24%	13.52%	16.68%	19.42%
TRADE&COMMERCE	1961	4.86%	4.28%	3.65%	4.94%	5.72%
	1981	5.91%	5.74%	6.16%	8.12%	18.71%
TRAN,STRG&COMMN	1961	1.68%	1.28%	0.99%	1.65%	2.71%
	1981	2.54%	2.58%	2.42%	2.76%	4.85%
OTHER SERVICES	1961	18.37%	9.28%	9.37%	15.36%	25.28%
	1981	7.97%	7.83%	6.82%	7.39%	12.38%
TERTIARY SECTOR	1961	16.83%	14.83%	14.88%	21.95%	33.71%
	1981	16.42%	15.26%	15.48%	18.27%	27.36%

Source: Census Of India, 1961, Vol.1, India, Part II-B(i), General Economic Tables, Delhi, 1965 and
Census Of India, 1981, Vol.1, India, Part II-B(i), General Economic Tables, Delhi, 1989.

* Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations and Orchards.

TABLE 4.2

WORKER PARTICIPATION RATE IN KERALA AND ITS DISTRICTS, 1961 & 1981

	AK	CNR	KZHD&PLG MLPM&MYD	TCR	EKM	KTYM &IDKI	ALPY	QLN	TVM	
STATE WORKERS										
TOTAL	1961	33.31%	35.37%	33.94%	33.20%	33.19%	32.61%	33.70%	32.52%	31.00%
	1981	30.52%	29.93%	29.59%	29.63%	31.68%	32.71%	31.93%	30.27%	30.21%
FEMALES	1961	19.71%	23.00%	19.66%	21.89%	19.32%	16.24%	22.08%	19.22%	16.04%
	1981	16.61%	16.39%	15.78%	18.55%	16.37%	16.61%	20.52%	16.13%	14.49%
MALES	1961	47.20%	48.10%	48.00%	45.52%	47.02%	48.39%	45.64%	45.77%	46.05%
	1981	44.86%	43.92%	43.84%	41.81%	46.94%	48.59%	43.92%	44.77%	46.39%
DISTRICT WORKERS										
TOTAL	1961	33.97%	36.21%	34.66%	33.69%	34.30%	33.06%	34.57%	32.65%	31.64%
	1981	31.23%	31.22%	30.21%	29.94%	33.43%	33.01%	32.72%	30.69%	31.01%
FEMALES	1961	20.88%	24.92%	20.88%	22.71%	21.66%	16.79%	23.39%	19.42%	17.07%
	1981	17.72%	18.57%	16.86%	19.49%	19.17%	16.92%	21.66%	16.47%	15.17%
MALES	1961	47.42%	47.95%	49.09%	45.69%	47.09%	48.72%	46.08%	45.86%	46.39%
	1981	45.19%	44.28%	44.02%	41.53%	47.69%	48.87%	44.37%	45.29%	47.39%
AGRICULTURAL WORKERS										
TOTAL	1961	29.57%	31.25%	29.41%	29.36%	29.07%	28.39%	29.51%	30.99%	29.18%
	1981	27.42%	25.71%	25.68%	28.45%	28.99%	29.05%	27.73%	27.50%	27.83%
FEMALES	1961	13.00%	13.83%	11.81%	15.41%	10.30%	11.01%	15.70%	16.65%	13.03%
	1981	11.76%	9.26%	8.89%	14.99%	12.07%	12.92%	14.43%	13.90%	12.49%
MALES	1961	45.98%	48.84%	47.05%	44.22%	46.79%	45.19%	43.50%	44.63%	45.08%
	1981	43.42%	42.76%	42.76%	42.85%	45.80%	45.27%	41.54%	41.35%	43.44%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November, 1986.

A similar association can be observed in the worker

participation rate and proportion of workers in the industrial categories I and II (ie. Cultivators and Agricultural Labourers) in all the different districts of Kerala. Thus the proportion of workers in these two categories was higher in Cannanore district (41.77%) which also recorded a higher overall worker participation rate in 1961 (35.37%). On the other hand, where the proportion of workers in these two categories together was lower eg. Kottayam-Idukki (35.14%), the WPR was also lower (32.61%). Same is the case in 1981 also: Two decades later, Kottayam-Idukki district showed a higher proportion (47.13%) of workers in these two categories; it also had higher (32.71%) WPR rates; Trichur district which showed the lowest (37.24%) proportion of workers in these two categories showed a lower (29.63%) WPR rate. (Refer to Tables 4.2 and 4.4). This is because in an under-developed economy, where the secondary and tertiary sectors are not substantial, the participation rate will vary with the size of the primary sector, particularly with the relatively large absorption capacity in agriculture sector. However, where agriculture has reached a saturation point and other sectors are stagnant, the overall WPR will steadily decline.

Another reason for low WPR for industrial categories I & II can be deduced from the sex-specific participation rates. In 1961, the female WPR in Kerala was 19.71% as against 27.96% for the country as a whole, whereas in 1981, it was 16.61% for Kerala as against 20.85% for the country'. The

overall WPR varies directly with female WPR and hence the low WPR for these two categories in Kerala. The following could be plausible explanations for this low WPR amongst females in Kerala :

(i) The preponderance of perennial tree crops like coconut, arecanut and rubber in Kerala over seasonal field crops involves lower employment potential for females.

(ii) The state has relatively high literacy rate and a wide spread of education amongst women : Literate and educated persons may not willingly take up wage employment involving manual labour.

Over the years, the population of Kerala grew at a relatively high rate, the cultivable land per-capita steadily fell and the relative share of workers in agriculture rose for some time and then steadily declined. The proportion of workers in categories I & II dropped² from 53.12% in 1901 to 43.24% in 1981. Per-capita cultivable land available in this state is the lowest among all the states in India. It may also be noted that the proportion of households owning no land is highest in Kerala among all states in the country. The proportion of households neither owning land nor operating any land is also very high in Kerala (Refer to Table 4.3). Thus, according to the results of the NSS 17th round, over one-fifth of the households in

Kerala neither own land nor operate any land. The pressure of population and limited supply of cultivable land seem to be a plausible factor for workers in the primary sector to be significantly lower in Kerala than in other states.

TABLE 4.3

NUMBER OF HOUSEHOLDS HOLDING NO LAND (NSS 17th ROUND)

STATE	TOTAL NUMBER OF ESTIMATED HOUSEHOLDS OWNING NO LAND (continued sample)	PERCENTAGE OF TOTAL NUMBER OF HOUSEHOLDS OWNING NO LAND (continued sample)	PERCENTAGE OF TOTAL NUMBER OF HOUSEHOLDS NEITHER OWNING NOR OPERATING LAND (continued sample)
A. PRADESH	6641	6.84	5.92
ASSAM	2824	27.77	28.95
BIHAR	8583	8.63	6.43
GUJARAT	3141	14.74	13.63
JAMMU & KASHMIR	684	10.93	5.79
KERALA	2492	38.98	21.39
M. PRADESH	5479	9.14	7.76
MADRAS	6764	24.28	21.88
MAHARASHTRA	5382	16.83	13.88
MYSORE	3567	18.64	13.68
ORISSA	3799	7.84	6.37
PUNJAB	2494	12.33	8.58
RAJASTHAN	2956	11.84	2.28
U. PRADESH	13372	2.78	2.27
WEST BENGAL	4914	12.56	9.67
UNION TERRITORIES	144	15.22	11.11
ALL-INDIA	72466	1.68	

SOURCE: The Cabinet Secretariat, Government of India, The National Sample Survey, 17th round, september 1961-july 1962, Report Number 144, 1968, p.126.

INDUSTRIAL DISTRIBUTION OF THE WORK FORCE IN THE STATE

The distribution of the work force in 1961 and 1981 is presented³ in Table 4.4. We first consider agriculture, concentrating on Categories I and II, viz., "cultivators" and "agricultural labourers". The share of agriculture, thus defined, rises slightly from 38.30% to 43.24% of total work force between 1961 and 1981 in Kerala. But this slight increase of 4.94% in 1981 is due to a rise in the share of "Agriculture" for females (50.66%), which more than offsets the decline in the share of males (40.41%) in 1981⁴.

TABLE 4.4
PERCENTAGE DISTRIBUTION OF TOTAL WORKER POPULATION BY INDUSTRIAL CATEGORY
IN KERALA AND ITS DISTRICTS IN 1961 & 1981

		AK	CNNR	KZHD&PLG MLPM&WYND.	TCR	EKM	KTYM &IDKKI.	ALPY	QLN	TVM
CULTIVATORS	1961	20.92%	24.29%	18.00%	16.58%	20.54%	20.07%	17.95%	31.74%	21.51%
	1981	13.68%	13.46%	12.59%	9.96%	11.22%	20.54%	11.73%	20.36%	9.84%
AGRI:LABOURERS	1961	17.38%	17.48%	22.17%	15.25%	14.06%	15.07%	19.14%	13.73%	14.65%
	1981	29.56%	29.49%	35.86%	27.28%	19.65%	26.59%	27.61%	25.08%	34.65%
* M&Q,L,F,F,H,P,O.	1961	8.66%	6.33%	8.33%	7.48%	6.37%	25.24%	5.75%	6.10%	5.00%
	1981	9.97%	9.41%	10.62%	8.83%	8.39%	18.82%	8.40%	7.59%	5.71%
PRIMARY SECTOR	1961	46.96%	48.10%	48.49%	39.31%	40.97%	60.38%	42.84%	51.57%	41.16%
	1981	53.21%	52.36%	59.08%	46.07%	39.26%	65.96%	47.74%	53.03%	50.20%
MFG H-H INDUS	1961	8.68%	6.49%	6.67%	9.66%	7.84%	4.58%	17.10%	8.81%	11.34%
	1981	4.04%	2.15%	2.90%	5.53%	3.40%	2.64%	10.80%	3.62%	4.03%
MFG NON H-H INDUS	1961	9.40%	10.38%	7.00%	9.28%	11.15%	6.81%	9.19%	17.00%	7.72%
	1981	12.50%	17.00%	9.22%	14.06%	17.14%	6.17%	11.73%	18.04%	11.43%
CONSTRUCTION	1961	1.26%	1.03%	1.24%	1.33%	1.79%	1.57%	0.97%	0.91%	1.29%
	1981	2.80%	2.83%	2.52%	3.36%	5.60%	2.07%	2.45%	1.99%	2.99%
SECONDARY SECTOR	1961	19.34%	17.89%	14.99%	20.27%	20.79%	12.16%	27.26%	26.72%	20.35%
	1981	19.43%	22.78%	14.60%	22.94%	26.14%	10.88%	24.98%	23.65%	18.45%
TRADE&COMMERCE	1961	5.72%	6.01%	5.47%	6.13%	6.40%	5.09%	5.97%	4.58%	6.55%
	1981	10.21%	11.39%	10.55%	11.64%	11.85%	8.39%	10.01%	8.25%	9.35%
TRAN,STRG&COMMN	1961	2.71%	1.98%	2.75%	2.88%	4.66%	1.95%	2.91%	2.16%	2.27%
	1981	4.85%	4.18%	5.01%	5.57%	7.83%	3.20%	4.55%	3.52%	5.03%
OTHER SERVICES	1961	25.28%	26.02%	28.29%	31.41%	27.19%	20.42%	21.02%	14.97%	29.67%
	1981	12.30%	9.30%	10.73%	13.78%	14.92%	11.58%	12.73%	11.55%	16.97%
TERTIARY SECTOR	1961	33.71%	34.01%	36.51%	40.42%	38.25%	27.46%	29.91%	21.71%	38.49%
	1981	27.36%	24.86%	26.28%	30.99%	34.60%	23.17%	27.28%	23.32%	31.35%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi.
 Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi,
 November, 1986.

* Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations and Orchards.

Certain proportion of the new entrants into the labour force turned to manufacturing. As in 1961, 18.08%^a of the total workers were engaged in manufacturing activities, of which 47.99% accounted for household industries^b. Another interesting thing to note is that 42.87% of work force in manufacturing activities was women, as against 27.27% in the country, as a whole^c. These activities are characterised by traditional technology and low productivity and meagre earnings. In 1981, 16.55% of the total workers were engaged in manufacturing activities, of which 24.43% accounted for household industries, showing a significant decline of 23.56 percentage points. Women in manufacturing in All-India declined to 18.13% (a decline of 9.14 percentage points), while in Kerala it declined to 37.80% (a decline of 5.07% points). There has been a definite shift from household industries to non-household industries, mostly due to new and improved technologies in processing, storage etc.

INDUSTRIAL DISTRIBUTION OF WORK FORCE - DISTRICT-WISE

Most of the districts show an increase in percentage share of total workers in the primary sector. Kottayam-Idukki^a had 60.38% in 1961 which rose to 65.96% in 1981. The high percentage share of workers in Kottayam-Idukki in the primary sector is due to the plantations and the increase in 1981 is due to the

absorption of more workers in this category. In Kozhikode-Palghat-Malappuram-Wayanad, the high percentage share is due to the larger number of agricultural labourers and the increase in 1981 is due to the absorption of more workers in this category.

In the secondary sector, we find that the percentage share of such workers in Alleppey and Quilon is high. While the All-Kerala average was 19.34% in 1961, Alleppey had 27.26% in 1961 and Quilon had 26.72% in 1961. The higher percentage share of workers in Alleppey and Quilon is due to the existence of non-household agro-processing industries. Kottayam-Idukki had the lowest percentage share (12.16% in 1961 and 10.88% in 1981), as most of the workers were absorbed in the primary sector. In 1981, the share of All-Kerala rose marginally by 0.09 percentage points, while it fell in Alleppey by 2.28 percentage points, in Quilon by 3.07 percentage points and in Kottayam-Idukki by 1.28 percentage points. The share of manufacturing has been fluctuating around a low figure. According to the current indications, the share of this sector is on the decline; so are the major traditional industries of Kerala like cashew, coir, handloom weaving etc..

Trivandrum, Ernakulam and Trichur districts showed high levels of percentage share of total workers in the tertiary sector. While the All-Kerala average was 33.71% in 1961 and 27.36% in 1981, Trivandrum had 38.49% in 1961 and 31.35% in 1981, Ernakulam had 38.25% in 1961 and 34.60% in 1981 and

Trichur had 40.42% in 1961 and 30.99% in 1981. The reason for higher percentage share of workers in Trivandrum in this sector is quite obvious. Trivandrum, being the state capital, had most of the government offices situated there, which led to the concentration of such workers. In Ernakulam, the higher percentage share is due to the fact that both the Major Port of Cochin and the industrial belt of Kerala are situated in that district, where trade, commerce and allied activities are on a higher level which, in turn, leads to an increase in percentage share of workers in the tertiary sector. As for Trichur, it is the educational institutions and trade and commerce which account for a major share in the tertiary sector.

The tertiary sector comprising Trade & Commerce, Transport, Storage & Communications and Other Services accounted for 33.71% of total workers in 1961 and 27.36% in 1981. Of this the share of the former (Trade & Commerce, Transport, Storage & Communications) came to 8.43% in 1961 and 15.06% in 1981 and that of Other Services came to 25.28% in 1961 and 12.30% in 1981. A probable reason for the decline in Other Services in 1981 would be the formalisation of the labour market leading to lesser and lesser number of people being put in the subdivision, "services not elsewhere classified" of the Other Services division. Again, the sharp decline in Other Services in 1981 may be the off-shoot of the virtual elimination of this "unspecified" category (The sharp rise in the share of agricultural labourers would

indicate that many of the erstwhile workers in "unspecified" category have been returned as agricultural labourers in 1981).

Over the years, tertiary sector has been growing, accommodating an increasing number and proportion of the working force. It may be argued that the growth of the tertiary sector is the logical consequence of the unique pattern of development of the state's economy. The predominance of commercial crops like tea, rubber, coffee, cardamom, pepper and other spices, coconut, arecanut, cashewnut, forestry and fishery in the economy of Kerala has led to the growth of the tertiary sector. Production of commercial crops, forest and marine products and growth of exports have called for a network of agencies engaged in their collection, storage, transportation and trade, and in the process, supporting institutions like banks, hotels, lodgings and eateries. The expansion of tertiary sector is but a legitimate response to the very peculiar direction of growth of primary and secondary sectors in Kerala. However, on closer scrutiny, it is seen that this alone cannot explain the growth of the tertiary sector. As primary and secondary sectors are unable to absorb the persons seeking work, the residual go into tertiary sector which, somehow, accommodates increasing numbers without showing signs of saturation. This is easily accomplished, as entry is comparatively easy and can be organised on a small scale, with modest investment. Retail distribution trade is a

typical example. Initial investment, needed to set up a pan (betel) shop or a road-side eatery is very small. In Kerala, the number of independent workers, in such activities is large. Again, Personal and Domestic service in Kerala have developed very well. This type of change in the inter-sectoral distribution of the work force has been analysed by Simon Kuznets, as mentioned earlier. In his article, "Quantitative Aspects Of The Economic Growth Of Nations:II, industrial distribution of national product and labour force," he has tried to explain reasons for this type of shifts. He says that in less developed countries, the pressure of population on land leads the surplus labour force to move into service activities, since some of them demand very little capital and yet provide some modicum of living.(eg. peddling, cart transport, personal services of various descriptions). The movement of surplus labour into services is more so, because entry into the manufacturing sector is inhibited by capital scarcity in less developed countries⁷. Hence it is not surprising to find a high level of non-agricultural employment in rural Kerala (Refer to Table 4.5).

RURAL EMPLOYMENT IN NON-AGRICULTURAL ACTIVITIES

TABLE 4.5
PERCENTAGE DISTRIBUTION OF TOTAL, RURAL AND URBAN WORKER
POPULATION BY SECTORS IN KERALA IN 1961 & 1981

	1961			1981		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
<u>TOTAL WORKERS</u>						
PRIMARY SECTOR	46.96%	46.11%	48.94%	53.21%	51.87%	56.72%
SECONDARY SECTOR	19.34%	16.45%	26.11%	19.43%	17.91%	23.41%
TERTIARY SECTOR	33.71%	37.44%	24.95%	27.36%	30.22%	19.86%
<u>RURAL WORKERS</u>						
PRIMARY SECTOR	51.97%	51.72%	52.52%	60.22%	59.38%	62.28%
SECONDARY SECTOR	18.29%	15.01%	25.54%	17.41%	15.26%	22.70%
TERTIARY SECTOR	29.74%	33.26%	21.94%	22.38%	25.36%	15.01%
<u>URBAN WORKERS</u>						
PRIMARY SECTOR	14.59%	14.17%	16.09%	18.61%	18.17%	20.18%
SECONDARY SECTOR	26.08%	24.62%	31.29%	29.42%	29.78%	28.09%
TERTIARY SECTOR	59.33%	61.21%	52.62%	51.98%	52.05%	51.73%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General

Economic Tables, Delhi and

Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General

Economic Tables, Delhi, November, 1986.

While agriculture is unquestionably the dominant source of employment in rural Kerala, non-agricultural activities are by no means insignificant. In 1961, nearly half of the rural workforce was reported to be engaged in non-agricultural activities, while in 1981, it was 2/5th of the rural workforce. In 1961, 48.27% of males and 47.48% of females in rural Kerala were employed in non-agricultural activities, while in 1981, the shares were 40.62% for males and 37.71% for females (Refer to Table 4.5). In view of the high labour absorption in non-agricultural pursuits in Kerala, it is necessary to identify the determinants of rural non-agricultural employment^a. Broadly speaking, the level of rural employment in non-agricultural activity, relative to the rural labour force, can be viewed as a flux of the following factors :-

1. Level of rural demand for various non-agricultural goods and services, produced locally.
2. Level of extra local demand for rural products and services from urban areas in the vicinity, as well as from other regions.
3. Location, scale and technology of activities, catering to this demand.

Local Rural Demand

The rural sector's demand for non-agricultural products consists of inputs for agriculture, animal husbandry, manufactured goods for consumption and trading,

transport and related services. Traditional agriculture uses mostly locally-produced inputs but with modernisation, dependence on non-local inputs increased (eg. modern technology brings about the usage of fertilisers, pesticides, pumpsets, tractors etc.). The final demand for manufactures and services in a given rural area is in part dependent on the level of prosperity of its population, of whom agriculturists are the most important segment. However, there are certain categories of community services like public administration, education and health services, whose level and location may be decided from outside (eg. by state policy). These have expanded tremendously in the last two decades and this is evident when we look at the share of each group in the dis-aggregated analysis of the services sector (Refer to Table 5.9 of chapter V). Another plausible reason for large share of rural employment in non-agricultural activities is the degree of commercialisation in the area. The larger the output per capita and proportion of output sold outside, the larger will be the volume of trade and trade-related activities. Higher degree of commercialisation in production also implies a greater degree of dependence on market purchases for intermediate goods, which in turn adds to the volume of commercial and transport activities.

Extra Local Demand

It could happen that some part of the rural workers reporting employment in non-agricultural activities may be

employed in nearby urban areas, but residing in the village. This means that a part of non-agricultural workers, residing in rural areas, may, in fact, be working outside and catering to extra-local demands. Very little is known about this phenomenon and we are unable to gauge the importance of it.

Location, Scale and Technology

The degree of commercialisation of the rural economy would seem to be the important factor affecting the scale, location and technology used in non-agricultural activity. With the spread of commercialisation, agricultural production gets more specialised and the extent of trading and trade-related activities increases. Since commercialisation of agriculture extends the territorial network of exchange, the effective size of the market for non-agricultural goods and services also expands, creating thereby the conditions for greater specialisation, technical change and spatial concentration of non-agricultural production.

Most of the factors discussed above had considerable impact on rural Kerala, giving rise to a significant share of employment in non-agricultural sector. Having examined the distribution of the work force over broad industrial categories, we now study it in some detail, in particular activities other than cultivation.

FOOTNOTES

1. For WPR of All-India refer to Table 3.2 of Chapter III.
2. For 1901 figures, refer to, Census Of India, Paper No. 1, 1962, A note on the working force estimates, 1901-1961, Appendix I, B. R. Kalra, Delhi, 1962.
3. To make Census data of 61 and 81 comparable, one had to club together livestock, fishing, forestry, hunting, plantations and orchards with mining and quarrying of 1981 to make it comparable to 1961) .See also Chapter II for a discussion of the problem of comparability.

4. Percentage distribution of Total, Male and Female worker population in the primary sector in 1961 & 1981 in Kerala and All-India.

	TOTAL		MALES		FEMALES	
	1961	1981	1961	1981	1961	1981
ALL KERALA						
1. CULTIVATORS	28.92%	13.68%	22.92%	16.82%	16.25%	7.58%
2. AGRICULTURAL LABOURERS	17.38%	29.56%	13.10%	24.39%	27.42%	43.10%
3. MINING & QUARRYING, LIVESTOCK, FISHING, FORESTRY, HUNTING, PLANTATIONS & ORCHARDS.	8.66%	9.97%	10.10%	11.46%	5.27%	6.07%
4. PRIMARY SECTOR	46.96%	53.21%	46.12%	51.87%	48.94%	56.73%
ALL-INDIA						
1. CULTIVATORS	52.80%	42.84%	51.45%	43.66%	55.72%	37.44%
2. AGRICULTURAL LABOURERS	16.71%	26.33%	13.41%	19.84%	23.86%	44.85%
3. MINING & QUARRYING, LIVESTOCK, FISHING, FORESTRY, HUNTING, PLANTATIONS & ORCHARDS.	2.77%	2.77%	3.12%	3.01%	2.01%	2.06%
4. PRIMARY SECTOR	72.27%	71.14%	67.98%	66.51%	81.59%	84.34%

Source: Census Of India, 1961, Vol. I, India, Part II-B(i), General Economic Tables, Delhi, 1965 and
Census Of India, 1981, Vol. I, India, Part II-B(i), General Economic Tables, Delhi, 1989.

5. Percentage distribution of work force in Manufacturing.

5 a).

PERCENTAGE DISTRIBUTION OF WORK FORCE

IN MANUFACTURING (1961 & 1981)

		TOTAL	MALES	FEMALES
ALL-INDIA				
	1961	10.60%	11.26%	9.17%
TOTAL MNFG	1981	10.86%	12.01%	7.58%
KERALA				
	1961	18.08%	14.74%	25.93%
TOTAL MNFG	1981	16.55%	14.22%	22.64%

5 b).

PERCENTAGE DISTRIBUTION OF WORK FORCE

WITHIN MANUFACTURING (1961 & 1981)

ALL-INDIA	TOTAL	MALES	FEMALES
1961			
MNFG H-H INDUS	60.14%	50.62%	85.51%
MNFG NON H-H INDUS	39.86%	26.44%	14.49%
1981			
MNFG H-H INDUS	32.27%	49.38%	50.58%
MNFG NON H-H INDUS	67.73%	73.56%	41.42%
KERALA			
1961			
MNFG H-H INDUS	47.99%	32.44%	68.72%
MNFG NON H-H INDUS	52.01%	16.89%	31.28%
1981			
MNFG H-H INDUS	24.43%	67.56%	36.83%
MNFG NON H-H INDUS	75.57%	83.11%	63.17%

5 c).

PERCENTAGE SHARE OF MALES AND FEMALES

IN THE MANUFACTURING SECTOR

		MALES	FEMALES	TOTAL
ALL INDIA	1961	72.73%	27.27%	100.00%
	1981	81.87%	18.13%	100.00%
KERALA	1961	57.13%	42.87%	100.00%
	1981	62.20%	37.80%	100.00%

Source: Census Of India, Vol.1, India, Part II-B(i),
General Economic Tables, 1961 & 1981, Delhi.

6. To make Census data of 61 and 81 comparable, one had to club together the four districts. See also Chapter II for a discussion of the problem of comparability.
7. See Simon Kuznets, "Quantitative Aspects of the Economic Growth of Nations: II, Industrial Distribution of National Product and Labour Force", Economic Development and Cultural Change, 5, (July 1957, Supplement).
8. A.Vaidyanathan, "Labour Use In Rural India - A study of spatial and temporal variations", Economic and Political Weekly, Vol XXI, No 52, Review On Agriculture, December 27, 1986.

CHAPTER V

DIS-AGGREGATED ANALYSIS OF THE TERTIARY SECTOR

Now, it would be useful to attempt a more detailed analysis of the non-agricultural work force to explain the growth of tertiary sector in Kerala. Unfortunately, we cannot take up such an analysis for cultivators and agricultural labourers, as the Census does not give us the dis-aggregated data for them. The Census gives these data by nine industrial divisions, which are further dis-aggregated at the two-digit and three-digit level industry groups.

TABLE 5.1
PERCENTAGE DISTRIBUTION OF TOTAL, MALE AND FEMALE WORKERS BY INDUSTRIAL
CLASSIFICATION, (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS)

DIVISIONS IN KERALA IN 1961 & 1981

	TOTAL		MALE		FEMALE	
	1961	1981	1961	1981	1961	1981
DIVISION 0 AGRICULTURE, HUNTING, FORESTRY & FISHING.	13.54%	16.15%	15.08%	17.51%	9.45%	11.85%
DIVISION I MINING AND QUARRYING.	0.66%	1.33%	0.88%	1.61%	0.88%	0.45%
DIVISION II & III MANUFACTURE AND REPAIR.	29.14%	29.47%	22.86%	24.32%	45.86%	45.87%
DIVISION IV ELECTRICITY, GAS AND WATER.	0.28%	0.85%	0.38%	1.01%	0.03%	0.32%
DIVISION V CONSTRUCTION.	2.84%	5.86%	2.68%	6.15%	0.32%	1.58%
DIVISION VI WHOLESALE TRADE, RETAIL TRADE, RESTAURANTS AND HOTELS.	11.53%	15.79%	14.66%	19.26%	3.20%	4.78%
DIVISION VII TRANSPORT, STORAGE AND COMMUNICATIONS.	4.39%	8.51%	5.74%	10.24%	0.80%	3.02%
DIVISION VIII FINANCING, INSURANCE, REAL ESTATE AND BUSINESS SERVICES.	0.93%	2.11%	1.25%	2.43%	0.08%	1.08%
DIVISION IX COMMUNITY, SOCIAL AND PERSONAL SERVICES.	37.50%	20.72%	36.49%	17.47%	40.19%	31.06%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, Nov., 1986.

From Table 5.1 we find that over the two decades, (1961 to 1981) all the divisions showed slight increase, excepting divisions II & III and division IX. There was very little change in division II & III but in division IX there was a sharp decline in percentage share of workers¹.

The tertiary or the services sector showed a marked increase, if we exclude division IX from our calculations. The percentage share of workers in the tertiary sector excluding division IX, showed an increase from 16.85% in 1961 to 26.41% in 1981 for the total workers; an increase from 21.65% in 1961 to 31.93% in 1981 for the male workers and from 4.08% in 1961 to 8.88% in 1981 for the female workers.

Let us now look at the Census data at the dis-aggregated level of industrial divisions, major and minor groups, more closely to find out which subsections absorbed more people and their growth over the years (Refer to Table 5.2).

If we consider the distribution of work force within manufacturing industries (Table 5.2), the major increases were in (1) Manufacture of Beverages and Tobacco Products, (2) Manufacture of Paper and Paper Products, Printing, Publishing and allied Industries, (3) Manufacture of Rubber, Plastic, Petroleum and Coal Products, (4) Manufacture of Chemical and Chemical Products, (5) Manufacture of Machine Tools, Electrical Machinery and (6) Miscellaneous

Manufacturing and Repairs. There was a relative decline in (1) Manufacture of Food Products, (2) Manufacture of Textiles, (3) Manufacture of Wood and Wood Products, (4) Manufacture of Leather and Fur Products, (5) Manufacture of Non-metallic Mineral Products, (6) Manufacture of Basic Metal, Metal Products and Parts and (7) Manufacture of Transport Equipments and Parts.

In 1961, only 22.86% of the male work force was engaged in manufacturing industries². The female work force was concentrated in manufacture of food products and textiles, which absorbed 80.66% of the female work force in manufacturing industries. This employment was mainly in "cashewnut processing" and "coir making". If we consider the total work force engaged in manufacturing, then, 73.09% were engaged in manufacture of food products, textiles and wood and wooden products. It is in this sense one can say that Kerala's employment pattern is closely related to its natural resources. In 1981, the male work force slightly increased to 24.31% in manufacturing, while the share of female work force remained more or less constant, but within manufacturing, employment in food products and textiles decreased to 67.63%. This decrease in employment was mainly in "cashewnut processing" and "coir making". The slow decline in the employment in manufacture of food products is the result of mechanisation in milling, processing etc. of cereals, edible oils and sugar. The relative decline in employment in manufacture of wood and

wooden products probably reflects a mixture of forces in action. On the demand side, a shift towards bricks, cement and steel as construction materials and replacement of wooden equipments would have led to the decrease in share of employment in that sector. Further, the growth of saw mills would have led to the decrease in employment in the subdivision - manufacture of wood and wooden products.

All major groups in the services sector, excluding (1) Storage and Warehousing, (2) Sanitary Services, (3) Personal Services and (4) International and Other Extra-Territorial Bodies Services and Services not elsewhere Classified, showed an increase from 1961 to 1981 for total, male and female workforce (Table 5.2) .

Wholesale and retail trade had a continuous uptrend both in absolute size (302679 in 1961 to 529083 in 1981) and percentage. Between 1961 and 1981 its share rose by 3.22% points. Transport, Banking and similar type of Financial Institutions, Providents and Insurance, Real Estate and Business Services and Legal Services-- all showed an increase in the percentage share in the work force in 1981.

In 1961, 54.34% of the total work force was employed in the services sector and 47.14% in 1981. The sharp decline in the services sector (of 7.20 percentage points) is due to the fall in International and Other Extra Territorial Bodies Services and Services not elsewhere Classified from 22.57% in 1961 to 2.71% in 1981 (Refer to Table 5.2). This could be due to the definitional changes from one Census to another.

The reason for the decline in Services not elsewhere Classified is the formalisation of labour market. However, three sub-divisions, namely, Public Administration and Defense Services, Educational, Scientific and Research Services and Medical and Health Services, showed significant increases in the percentage points. In passing, it may be noted that the literacy rate³ in 1981 in Kerala was 69.2% showing an increase of 16% over the rate in 1971, so also, the number of medical institutions⁴ showed an increase of 56.94% in 1980-81 over 1970-71.

In 1961, 90.80% of the female workers in service sector were employed in Division IX, ie., Community, Social And Personal Services which declined to 77.79% in 1981⁵. The female workers in the services sector were concentrated in Educational, Scientific and Research Services, Medical and Health Services and Personal services which absorbed 38.84% in 1961 and 63.39% in 1981 respectively.

TABLE 5.2
 PERCENTAGE DISTRIBUTION OF TOTAL, MALE & FEMALE WORKERS BY INDUSTRIAL
 CLASSIFICATION, (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS)
 DIVISIONS AND MAJOR GROUPS IN KERALA
 (1961 & 1981)

	TOTAL		MALES		FEMALES	
	1961	1981	1961	1981	1961	1981
DIVISION 0						
AGRI, S, F & F	13.54%	16.15%	15.08%	17.51%	9.45%	11.85%
DIVISION I						
MINING & QUARRYING	0.66%	1.33%	0.88%	1.61%	0.08%	0.45%
0 + I	14.20%	17.49%	15.95%	19.12%	9.53%	12.30%
DIVISION II & III						
MNF OF FOOD PRODUCTS	4.63%	4.13%	2.38%	2.37%	10.61%	9.71%
MNF OF BEV & TOB PRODUCTS	2.62%	2.96%	3.50%	2.56%	0.30%	4.24%
MNF OF TEXTILES	11.64%	9.63%	6.10%	5.95%	26.38%	21.31%
MNF OF WOOD & W. PRODUCTS	5.03%	4.77%	4.65%	4.30%	6.02%	6.77%
MNF OF P&P PROD, PR&PB ETC	0.35%	0.60%	0.45%	0.78%	0.08%	0.38%
MNF OF LEATHER & FUR PROD	0.11%	0.09%	0.14%	0.11%	0.01%	0.02%
MNF OF RUB&PL, PET&COAL PR	0.12%	0.46%	0.16%	0.54%	0.02%	0.18%
MNF OF CHEM&CHEM PROD.	0.46%	0.98%	0.47%	0.95%	0.45%	1.07%
MNF OF NON.MET MIN PROD.	1.62%	1.60%	1.65%	1.52%	1.52%	1.88%
MNF OF BASIC MET PRODUCTS	1.18%	1.09%	1.51%	1.38%	0.32%	0.17%
MNF OF MACH. TOOLS & ELEC	0.05%	0.53%	0.07%	0.62%	0.00%	0.23%
MNF OF TPT EQPT & PARTS	0.36%	0.19%	0.50%	0.24%	0.00%	0.02%
MISC. MNFB. & REPAIRS	0.97%	2.37%	1.28%	2.99%	0.13%	0.39%
DIVISION IV						
ELFC, GAS & STEAM	0.25%	0.73%	0.34%	0.88%	0.02%	0.28%
WATER WORKS & SUPPLY	0.03%	0.11%	0.04%	0.14%	0.01%	0.04%
DIVISION V						
CONSTRUCTION	2.04%	5.06%	2.68%	6.15%	0.32%	1.58%
II + III + IV + V	31.46%	35.37%	25.92%	31.48%	46.21%	47.76%
DIVISION VI						
WHOLESALE TRADE	0.41%	0.89%	0.54%	1.12%	0.04%	0.18%
RETAIL TRADE	0.31%	11.05%	10.52%	13.51%	2.40%	3.21%
REST. & HOTELS	2.02%	3.85%	3.59%	4.63%	0.76%	1.38%

Contd.

DIVISION VII						
TRANSPORT	3.99%	7.58%	5.23%	9.21%	0.68%	2.39%
STORAGE & WAREHOUSING	0.05%	0.02%	0.06%	0.02%	0.03%	0.01%
COMMUNICATION	0.35%	0.92%	0.44%	1.02%	0.09%	0.62%
DIVISION VIII						
BANKING & SIMILAR FIN. INS.	0.32%	1.35%	0.44%	1.48%	0.02%	0.91%
PROVIDENT & INSURANCE	0.06%	0.13%	0.08%	0.15%	0.02%	0.06%
REAL ESTATE & BUS. SERVICE	0.31%	0.35%	0.42%	0.45%	0.03%	0.03%
LEGAL SERVICES	0.23%	0.28%	0.31%	0.35%	0.01%	0.07%
DIVISION IX						
PUB. ADMN. & DEF. SERVICE	2.02%	4.11%	3.65%	4.63%	0.62%	2.46%
SANITARY SERVICES	0.19%	0.01%	0.19%	0.01%	0.18%	0.01%
EDN., SCI. & RES. SERVICES	3.78%	6.13%	3.26%	4.06%	5.18%	12.71%
MEDICAL & HEALTH SERVICES	1.07%	1.77%	1.12%	1.27%	0.94%	3.34%
COMMUNITY SERVICES	1.20%	1.37%	1.41%	1.51%	0.63%	0.92%
REC. & CULT. SERVICES	0.20%	0.39%	0.25%	0.48%	0.06%	0.12%
PERSONAL SERVICES	5.67%	4.24%	3.65%	2.66%	11.07%	9.26%
INTL & OTHER SERV. NOT CLD.	22.57%	2.71%	22.97%	2.86%	21.50%	2.24%
VI + VII + VIII + IX	54.34%	47.14%	50.13%	49.40%	44.26%	39.93%
VI + VII + VIII + IX (EXCLUDING INTL & OTHER SERV. NOT CLASSIFIED)	31.78%	44.43%	35.16%	46.55%	22.76%	37.69%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November, 1986.

A major factor contributing to the development of tertiary sector in Kerala was the high priority given in the successive Plans for social services, transport and infrastructure development. This can be seen when we look at the Plan Outlays for different sectors in the Five Year Plans (Refer to Table 5.3).

TABLE 5.3
PLAN OUTLAYS FOR CENTRE AND KERALA STATE.
(Rs. Millions)

	First Plan (Actual)		Second Plan (Actual)		Third Plan (Actual)	
	INDIA	KERALA	INDIA	KERALA	INDIA	KERALA
Total	19800.00	258.93	46720.00	802.18	85770.00	1023.10
Agriculture & Allied Activities	2900.00 14.80%	24.85 9.60%	5490.00 11.75%	79.45 9.90%	10890.00 12.70%	258.59 14.10%
Irrigation and Power	5830.00 29.74%	157.06 60.66%	8020.00 18.88%	327.37 40.81%	19170.00 22.35%	763.46 41.88%
Industry & Mining	970.00 4.95%	5.04 1.95%	11250.00 24.08%	60.40 7.53%	19670.00 22.93%	143.70 7.88%
Transport & Communications	5100.00 26.43%	33.59 12.97%	12610.00 26.99%	71.83 8.95%	21120.00 24.62%	119.58 6.56%
Social Services Etc.	4720.00 24.08%	38.38 14.82%	8550.00 18.30%	263.13 32.80%	14920.00 17.40%	537.77 29.50%

	Three Annual (Actual)		Fourth Plan (Actual)		Fifth Plan (Actual)	
	INDIA	KERALA	INDIA	KERALA	INDIA	KERALA
Total	66250.00	1443.74	157790.00	3333.60	394260.00	6774.00
Agriculture & Allied Activities	11070.00 16.71%	328.90 22.79%	23200.00 14.70%	441.96 13.26%	48650.00 12.34%	1037.09 15.31%
Irrigation and Power	16030.00 25.40%	544.19 37.69%	42860.00 27.16%	1432.91 42.98%	112760.00 28.60%	2656.58 39.22%
Industry & Mining	16370.00 24.71%	133.50 9.25%	31070.00 19.69%	250.21 7.51%	95810.00 24.30%	772.40 11.40%
Transport & Communications	12220.00 18.45%	106.68 7.39%	30800.00 19.52%	307.63 9.23%	60700.00 17.43%	478.79 7.07%
Social Services Etc.	9760.00 14.73%	330.40 22.89%	29050.00 18.92%	900.90 27.02%	68340.00 17.33%	1829.14 27.00%

Notes:

First Plan : 1951-52 to 1955-56, Second Plan : 1956-57 to 1960-61,
Third Plan : 1961-62 to 1965-66, Three Annual Plans : 1966-67 to 1968-69,
Fourth Plan : 1969-70 to 1973-74, Fifth Plan : 1974-75 to 1978-79
(terminated in 1977-78).

Source: Statistical Outline Of India, 1982 and 1988-89, Department Of Economics And Statistics, Tata Services Limited and Statistics For Planning, 1983 and 1986, Directorate Of Economics And Statistics, Trivandrum, Government Of Kerala.

DISTRICT-WISE ANALYSIS

Now let us look at the inter district variations in Kerala in the distribution of work force by divisions over the two decades. Kozhikode-Palghat-Malappuram-Wayanad, Cannanore, and Kottayam-Idukki had the maximum employment in division 0, ie., Agriculture, Hunting, Forestry And Fishing, in both 1961 and 1981 (Refer to Appendix I).

TABLE 5.4
PERCENTAGE CHANGE FROM 1961 TO 1981 IN WORKER POPULATION BY INDUSTRIAL
CLASSIFICATION (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS) IN
IN PRIMARY SECTOR IN KERALA AND ITS DISTRICTS

	AK	CNR	KZHD&PLG MLPM&WYND.	TCR	EKM	KTYM &IDKKI.	ALPY	QLN	TVM
<u>DIVISION 0</u> AGRI, H, F & F	52.18% (2.61%)	73.70% (3.38%)	73.14% (4.97%)	52.99% (2.60%)	64.78% (1.93%)	14.86% (-3.64%)	78.61% (4.82%)	77.69% (3.18%)	54.79% (1.80%)
<u>DIVISION 1</u> MINING & QUARRYING	158.89% (8.67%)	335.71% (2.82%)	283.84% (1.25%)	61.17% (8.27%)	116.25% (8.48%)	77.65% (8.18%)	216.38% (8.41%)	-6.51% (-8.44%)	258.26% (8.37%)
<u>0 + 1</u>	57.89% (3.29%)	94.89% (5.48%)	82.35% (6.23%)	53.62% (2.87%)	68.48% (2.23%)	14.78% (-3.46%)	74.45% (4.44%)	66.98% (2.66%)	59.89% (2.18%)

1. TOP ROW REFERS TO PERCENTAGE INCREASE OR DECREASE IN 1981 OVER 1961. = $\frac{1981 \text{ ABSOLUTE FIGURES} - 1961 \text{ ABSOLUTE FIGURES}}{1961 \text{ ABSOLUTE FIGURE}} \times 100$

2. FIGURES IN BRACKETS DENOTES INCREASE = % SHARE IN 1981 - % SHARE IN 1961.
OR DECREASE IN PERCENTAGE POINTS.

There was an increase of 3.38 percentage points in employment in Division Ø in Cannanore and 4.97 percentage points in Kozhikode-Palghat-Malappuram-Wayanad^e, while the employment in Kottayam-Idukki decreased by 3.64 percentage points (Refer to Table 5.4). The higher absorption of work force in Cannanore and Kozhikode-Palghat-Malappuram-Wayanad and Kottayam-Idukki is in the plantations. These districts had a higher area under plantation crops. This is evident when we look at Table 5.5. Kottayam-Idukki had 34.33% share, Kozhikode-Palghat-Malappuram-Wayanad 24.95% share, and Cannanore, 12.83% in area under plantations.

TABLE 5.5

AREA UNDER PLANTATION CROPS IN KERALA AND ITS DISTRICTS

IN 1980-1981.

(Area In Hectares)

	TEA	COFFEE	RUBBER	COCOA	TOTAL	
TRIVANDRUM	1072	48	8735	699	10554	2.97%
QUILON	2004	378	38890	1099	42371	11.42%
ALLEPPEY	0	63	4273	3094	7430	2.09%
KOTTAYAM	2268	902	63232	6995	73397	20.65%
IDUKKI	24156	5134	17449	1890	48629	13.68%
ERNAKULAM	30	172	23334	3988	27524	7.74%
TRICHUR	441	33	9386	1380	11240	3.16%
PALGHAT	665	2264	11084	368	14381	4.05%
MALAPPURAM	174	10	19281	422	19887	5.60%
KOZHICODE	3899	30204	18171	2103	54377	15.30%
CANNANORE	1455	18741	23934	1468	45598	12.83%
ALL KERALA	36164	57949	237769	23506	355388	100.00%

Source:- Statistics For Planning, 1983, Directorate Of Economics And Statistics, Government Of Kerala, pp 145.

In manufacturing, Quilon district had the highest percentage share employed in manufacturing of food products both in 1961 and 1981 (Refer to Appendix II). It showed a decline of 4.51 percentage points in 1981 (Refer to Table 5.6).

TABLE 5.6

PERCENTAGE CHANGE FROM 1961 TO 1981 IN WORKER POPULATION BY INDUSTRIAL CLASSIFICATION (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS) IN SECONDARY SECTOR IN KERALA AND ITS DISTRICTS.

	AK	CNNR	KZHD&PLG MLPM&WYND.	TCR	EKM	KTYM &IDKKI.	ALPY	QLN	TVM
DIVISION II & III									
MNF OF FOOD PRODUCTS	13.75% (-0.50%)	-40.27% (-1.93%)	0.06% (-0.63%)	33.55% (0.29%)	82.99% (0.76%)	77.44% (0.55%)	73.16% (1.64%)	4.34% (-4.51%)	-7.72% (-1.01%)
MNF OF BEV & TOB PRODUCTS	43.85% (0.34%)	266.74% (10.03%)	-12.00% (-0.75%)	77.94% (0.04%)	-66.55% (-2.10%)	-70.70% (-2.45%)	-29.84% (-0.84%)	14.35% (-0.31%)	10.36% (-0.14%)
MNF OF TEXTILES	5.49% (-2.01%)	-0.84% (-2.89%)	50.25% (1.33%)	3.27% (-1.24%)	-12.86% (-3.54%)	27.43% (0.04%)	-10.57% (-7.21%)	0.99% (-3.61%)	5.56% (-2.51%)
MNF OF WOOD & WOOD PRODUCTS	21.03% (-0.26%)	25.99% (-0.13%)	21.19% (-0.21%)	24.12% (0.12%)	17.24% (-1.00%)	43.72% (0.47%)	15.76% (-0.08%)	22.04% (-0.47%)	3.20% (-0.87%)
MNF OF P&P PROD, PR & PB ETC.	150.22% (0.33%)	124.07% (0.12%)	353.50% (0.56%)	140.56% (0.34%)	175.01% (0.43%)	209.65% (0.57%)	80.51% (0.12%)	41.01% (0.03%)	56.33% (0.14%)
MNF OF LEATHER & FUR PRODUCTS	0.60% (-0.02%)	-10.15% (-0.05%)	6.66% (-0.02%)	51.20% (0.03%)	59.09% (0.02%)	-24.92% (-0.03%)	-41.67% (-0.03%)	-30.37% (-0.03%)	-12.23% (-0.02%)
MNF OF RUB&PL, PET& COAL PRODUCTS	386.72% (0.34%)	1084.72% (0.16%)	368.63% (0.18%)	977.54% (0.50%)	1476.62% (0.00%)	214.53% (0.63%)	170.74% (0.16%)	94.15% (0.07%)	344.97% (0.29%)
MNF OF CHEM&CHEM PRODUCTS	169.26% (0.51%)	0.12% (-0.00%)	167.88% (0.45%)	63.64% (0.20%)	217.13% (1.50%)	224.37% (0.43%)	195.61% (0.36%)	197.12% (0.45%)	530.29% (0.56%)
MNF OF NON.MET MIN PRODUCTS	26.54% (-0.01%)	23.38% (-0.06%)	10.09% (-0.22%)	38.91% (0.37%)	63.72% (0.45%)	-51.24% (-0.71%)	53.02% (0.17%)	26.06% (-0.13%)	44.69% (0.15%)
MNF OF BASIC MET PRODUCTS	17.86% (-0.09%)	9.51% (-0.13%)	13.92% (-0.13%)	29.92% (0.07%)	36.65% (-0.01%)	6.49% (-0.18%)	25.87% (0.05%)	9.56% (-0.28%)	6.00% (-0.13%)

MNF OF MACH. TOOLS & ELEC. MACHINERY	1189.51% (0.48%)	797.87% (0.15%)	820.26% (0.22%)	632.16% (0.34%)	4684.75% (1.87%)	378.04% (0.19%)	989.47% (0.28%)	414.54% (0.37%)	2335.63% (0.46%)
MNF OF TPT EGPT & PARTS	-33.77% (-0.18%)	-63.56% (-0.16%)	-56.37% (-0.15%)	-65.22% (-0.23%)	60.95% (0.11%)	-68.15% (-0.24%)	-9.41% (-0.09%)	-54.16% (-0.21%)	67.73% (-0.55%)
MISC. MNFG. & REPAIRS	212.54% (1.40%)	198.72% (1.20%)	178.81% (1.35%)	160.55% (1.93%)	302.36% (1.57%)	240.52% (1.23%)	229.90% (1.08%)	229.81% (1.06%)	269.34% (1.89%)
DIVISION II & III	29.01% (0.33%)	58.87% (6.23%)	37.16% (1.98%)	38.38% (3.64%)	41.50% (0.84%)	29.67% (0.48%)	6.04% (-4.38%)	13.35% (-7.58%)	18.71% (-1.73%)
DIVISION IV									
ELEC, GAS & STEAM	267.85% (0.48%)	335.38% (0.21%)	494.07% (0.41%)	104.97% (0.27%)	316.36% (0.47%)	175.09% (0.68%)	262.06% (0.47%)	261.92% (0.59%)	438.49% (0.88%)
WATER WORKS & SUPPLY	378.87% (0.08%)	4500.00% (0.07%)	1072.97% (0.07%)	317.95% (0.05%)	195.80% (0.07%)	515.52% (0.06%)	344.55% (0.07%)	294.92% (0.03%)	305.16% (0.27%)
DIVISION IV	279.54% (0.56%)	423.19% (0.27%)	534.79% (0.47%)	115.70% (0.32%)	291.90% (0.54%)	184.21% (0.74%)	270.53% (0.54%)	263.45% (0.63%)	396.61% (1.15%)
DIVISION V									
CONSTRUCTION	216.80% (3.02%)	267.36% (3.19%)	193.15% (2.74%)	235.98% (3.40%)	306.77% (5.36%)	103.39% (1.49%)	210.72% (2.50%)	195.95% (1.99%)	236.83% (3.38%)
II + III + IV + V	43.43% (3.92%)	71.95% (9.70%)	52.39% (5.19%)	52.30% (7.36%)	66.54% (6.74%)	43.72% (2.71%)	14.88% (-1.34%)	21.40% (-4.97%)	37.12% (2.80%)

1. TOP ROW REFERS TO PERCENTAGE INCREASE OR DECREASE IN 1981 OVER 1961. = $\frac{1981 \text{ ABSOLUTE FIGURES} - 1961 \text{ ABSOLUTE FIGURES} \times 100}{1961 \text{ ABSOLUTE FIGURE}}$

2. FIGURES IN BRACKETS DENOTES INCREASE = % SHARE IN 1981 - % SHARE IN 1961. OR DECREASE IN PERCENTAGE POINTS.

The work force absorption is mainly in cashewnut processing and prawn processing industries. We find that prawn landings in Quilon is highest (Refer to Table 5.7) among all the districts in Kerala. This implies employment in cleaning, storage and processing of prawns would be the highest in this district. Quilon boasts of more than 45% of prawn catches of Kerala .

TABLE 5.7

DISTRICT-WISE DISTRIBUTION OF MARINE LANDINGS IN KERALA IN 1981.
(Quantity in Tonnes)

	Sardines		Mackerel		Prawns		Misc.		Total	
TRIVANDRUM	5814	3.63%	1906	11.70%	132	0.52%	21300	28.75%	29152	10.57%
QUILON	8941	5.58%	1921	11.79%	11620	45.93%	24314	32.82%	46796	16.97%
ALLEPPEY	35211	21.99%	535	3.28%	991	3.92%	1390	1.88%	38127	13.82%
ERNAKULAM	17438	10.89%	4609	28.28%	3745	14.80%	9240	12.47%	35032	12.70%
TRICHUR	15769	9.85%	269	1.65%	1385	5.47%	2336	3.15%	19759	7.16%
MALAPPURAM	7788	4.86%	164	1.01%	784	3.10%	1499	2.02%	10235	3.71%
KOZHIKODE	23124	14.44%	3199	19.63%	2200	8.70%	4657	6.29%	33180	12.03%
CANNANORE	46063	28.76%	3694	22.67%	4440	17.55%	9342	12.61%	63539	23.04%
ALL KERALA	160140	100.00%	16297	100.00%	25297	100.00%	74078	100.00%	275820	100.00%

Source:- Statistics For Planning, 1983, Directorate Of Economics And Statistics, Government Of Kerala, pp 188.

Again, Alleppey district had the highest percentage share employed in manufacturing of Textiles both in 1961 and 1981 (Refer to Appendix II). In 1961, 29.39% were employed in this subdivision which came down to 22.17% in 1981. It is possible that employment in coir industries would have raised the employment in this subdivision in Alleppey. More than 46% of coir workers were concentrated in Alleppey (Refer to Table 5.8).

TABLE 5.8
DISTRIBUTION OF COIR WORKERS IN KERALA AND ITS
DISTRICTS

1980-81.

	Number of coir Households		Number of coir Workers	
TRIVANDRUM	12429	8.12%	28301	9.98%
QUILON	21134	13.80%	36548	12.89%
ALLEPPEY	72290	47.20%	133085	46.95%
KOTTAYAM	6149	4.02%	14738	5.20%
ERNAKULAM	9862	6.44%	18263	6.44%
TRICHUR	6176	4.03%	10122	3.57%
MALAPPURAM	4917	3.21%	9119	3.22%
KOZHIKODE	17680	11.54%	28498	10.05%
CANNANORE	2506	1.64%	4804	1.69%
ALL KERALA	153143	100.00%	283478	100.00%

Source:- Directorate of Economics & Statistics Survey
Of Coir Workers 1981.

In the tertiary sector or the services sector (comprising divisions VI, VII, VIII and IX), there has been an increase in all divisions, excepting division IX (Refer to Table 5.9 and Appendix III).

In division VI, Wholesale trade showed an increase in employment of 0.49 percentage points for All-Kerala.

There was an increase of 0.61 percentage points in employment in Kozhikode- Palghat- Malappuram-Wayanad, while the employment in Kottayam-Idukki had an increase of 0.75 percentage points. Retail trade showed an increase of 2.74 percentage points for All-Kerala. There was an increase of 3.84 percentage points in employment in Kozhikode-Palghat-Malappuram-Wayanad while, the employment in Kottayam-Idukki had an increase of 3.09 percentage points. Restaurants and Hotels showed an increase of 1.04 percentage points for All-Kerala. The increase in employment was mainly felt in Cannanore (1.56 percentage points) and Kozhikode-Palghat-Malappuram-Wayanad (2.25 percentage points).

In division VII, Transport showed an increase in employment of 3.59 percentage points for All-Kerala. There was an increase of 4.53 percentage points in employment in Kozhikode-Palghat-Malappuram-Wayanad, followed by Trivandrum which had an increase of 4.50 percentage points. Storage and Warehousing showed a decline of 0.04 percentage points for All-Kerala. Only Cannanore had an increase of 0.01 percentage points. Communication had an increase of 0.57 percentage points for All-Kerala. The increase in employment was mainly felt in Trichur (0.68 percentage points) and Kottayam-Idukki (0.61 percentage points).

In division VIII, Banking and similar Financial Institutions showed an increase in employment of 1.02 percentage points in Kerala. There was an increase of 1.50

percentage points in employment in Trichur, followed by Trivandrum which had an increase of 1.38 percentage points. Providents and insurance showed an increase in employment of 0.07 percentage points in Kerala. There was an increase of 0.10 percentage points in employment in Trivandrum, followed by Ernakulam and Kozhikode-Palghat-Malappuram-Wayanad, both of which had an increase of 0.09 percentage points. Real Estate and Business Services showed an increase in employment of 0.04 percentage points in Kerala. There was an increase in employment of 0.17 percentage points in Trichur, followed by an increase of 0.14 percentage points in Kozhikode-Palghat-Malappuram-Wayanad. Legal Services also showed an increase in employment of 0.05 percentage points in All-Kerala.

In division IX, Public Administration and Defense Services showed an increase in employment of 1.29 percentage points in Kerala. There was an increase of 2.31 percentage points in employment in Quilon, followed by Alleppey which had an increase of 1.81 percentage points. Sanitary Services showed a decline in employment of 0.18 percentage points in Kerala. Educational, Scientific and Research Services showed an increase in employment of 2.34 percentage points in Kerala. There was an increase of 4.08 percentage points in employment in Trivandrum, followed by Kottayam-Idukki which had an increase of 3.03 percentage points. Medical And Health Services showed an increase in employment of 0.70 percentage points in Kerala. Kottayam-Idukki had an increase

of 0.98 percentage points, followed by Alleppey which had an increase of 0.90 percentage points. Community Services showed an increase in employment of 0.17 percentage points in Kerala. Kozhikode-Palghat-Malappuram-Wayanad had an increase of 0.63 percentage points, while it decreased by 0.20 percentage points in Ernakulam. Recreational and Cultural Services showed an increase in employment of 0.20 percentage points in Kerala. Personal Services showed a decline in employment of 1.44 percentage points in Kerala. International and Other Services Not Elsewhere Classified also showed a decline in employment of 19.86 percentage points in All-Kerala.

TABLE 5.9
 PERCENTAGE CHANGE FROM 1961 TO 1981 IN WORKER POPULATION BY INDUSTRIAL
 CLASSIFICATION (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS)
 IN TERTIARY SECTOR IN KERALA AND ITS DISTRICTS.

	AR	CNR	RZRD&PCG MLPM&WYND.	TCR	ERR	RTYR &IDKKT.	ACPY	QCR	TVR
DIVISION VI									
WHOLESALE TRADE	179.46% (0.49%)	247.00% (0.55%)	244.38% (0.61%)	86.51% (0.17%)	162.91% (0.71%)	253.15% (0.75%)	107.91% (0.36%)	100.36% (0.17%)	153.05% (0.30%)
RETAIL TRADE	69.66% (2.74%)	72.21% (3.08%)	84.61% (3.84%)	71.46% (3.23%)	72.57% (2.07%)	82.56% (3.09%)	42.21% (1.69%)	73.31% (2.19%)	42.61% (1.23%)
REST. & HOTELS	74.60% (1.04%)	98.23% (1.56%)	124.97% (2.25%)	64.68% (1.04%)	36.59% (-0.02%)	50.97% (0.46%)	49.36% (0.73%)	46.15% (0.24%)	47.75% (0.44%)
DIVISION VI	74.75% (4.27%)	82.69% (5.19%)	99.56% (6.69%)	70.10% (4.44%)	69.75% (2.76%)	82.20% (4.30%)	46.59% (2.70%)	67.00% (2.60%)	46.36% (1.97%)
DIVISION VII									
TRANSPORT	142.29% (3.59%)	171.51% (3.38%)	162.64% (4.53%)	146.75% (3.97%)	116.70% (3.79%)	143.07% (2.44%)	89.02% (2.50%)	112.40% (2.06%)	213.01% (4.50%)
STORAGE & WAREHOUSING	-59.47% (-0.04%)	352.63% (0.01%)	-57.39% (-0.05%)	306.67% (0.01%)	-81.20% (-0.12%)	-30.77% (-0.01%)	-82.99% (-0.09%)	-60.53% (-0.01%)	-0.99% (-0.01%)
COMMUNICATION	237.27% (0.57%)	299.98% (0.54%)	213.94% (0.48%)	279.11% (0.60%)	216.89% (0.53%)	240.61% (0.61%)	187.02% (0.46%)	211.02% (0.45%)	283.90% (1.00%)
DIVISION VII	147.30% (4.12%)	181.60% (3.93%)	162.40% (4.96%)	157.02% (4.65%)	110.64% (4.20%)	153.65% (3.05%)	92.14% (2.87%)	120.57% (2.51%)	221.20% (5.50%)
DIVISION VIII									
BANKING & SIMILAR FIN. INST.	430.00% (1.02%)	520.67% (0.92%)	363.01% (0.77%)	412.42% (1.50%)	392.40% (1.22%)	411.10% (1.02%)	432.91% (1.00%)	502.79% (0.72%)	578.49% (1.30%)
PROVIDENTS & INSURANCE	168.17% (0.07%)	241.53% (0.08%)	347.73% (0.09%)	143.68% (0.05%)	207.42% (0.09%)	134.10% (0.05%)	101.02% (0.04%)	150.02% (0.03%)	90.72% (0.10%)
REAL ESTATE & BUS. SERVICES	42.04% (0.04%)	60.19% (0.06%)	82.63% (0.14%)	96.32% (0.17%)	18.41% (-0.07%)	22.63% (-0.01%)	3.07% (-0.05%)	-26.39% (-0.16%)	67.45% (0.04%)
LEGAL SERVICES	55.97% (0.05%)	17.79% (-0.02%)	45.77% (0.03%)	50.21% (0.04%)	67.37% (0.06%)	54.65% (0.04%)	36.57% (0.04%)	151.03% (0.18%)	46.70% (0.06%)
DIVISION VIII	189.32% (1.18%)	213.12% (1.04%)	181.02% (1.03%)	239.07% (1.76%)	172.04% (1.30%)	189.20% (1.10%)	140.04% (1.04%)	165.62% (0.70%)	220.71% (1.59%)

Contd.

DIVISION IX									
PUB. ADMN. & DEF. SERVICES	85.77%	57.55%	74.34%	34.85%	56.44%	143.58%	116.48%	187.22%	98.24%
	(1.29%)	(0.48%)	(0.87%)	(0.28%)	(0.53%)	(1.64%)	(1.81%)	(2.31%)	(3.19%)
SANITARY SERVICES	-92.83%	-98.00%	-98.93%	-93.68%	-88.72%	-98.93%	-95.24%	-71.50%	-99.59%
	(-0.18%)	(-0.13%)	(-0.17%)	(-0.18%)	(-0.23%)	(-0.13%)	(-0.14%)	(-0.09%)	(-0.35%)
EDNL. SCI. & RES. SERVICES	106.64%	87.08%	119.81%	87.20%	110.30%	131.49%	68.79%	91.78%	152.81%
	(2.34%)	(1.61%)	(2.45%)	(2.11%)	(1.79%)	(3.03%)	(1.81%)	(1.98%)	(4.08%)
MEDICAL & HEALTH SERVICES	111.03%	89.52%	128.95%	87.56%	111.83%	132.38%	105.57%	108.52%	102.70%
	(0.78%)	(0.39%)	(0.71%)	(0.56%)	(0.61%)	(0.98%)	(0.98%)	(0.62%)	(0.84%)
COMMUNITY SERVICES	45.59%	44.88%	90.58%	25.84%	15.94%	31.84%	14.26%	45.24%	36.35%
	(0.17%)	(0.14%)	(0.63%)	(0.03%)	(-0.20%)	(0.06%)	(-0.05%)	(0.08%)	(0.08%)
REC. & CULT. SERVICES	154.23%	113.16%	152.71%	87.46%	166.12%	238.77%	114.50%	179.32%	262.54%
	(0.20%)	(0.13%)	(0.18%)	(0.15%)	(0.20%)	(0.26%)	(0.18%)	(0.15%)	(0.33%)
PERSONAL SERVICES	-4.74%	-23.99%	-4.86%	-4.17%	0.54%	-10.96%	-9.50%	7.34%	3.02%
	(-1.44%)	(-1.69%)	(-1.47%)	(-1.36%)	(-1.69%)	(-1.64%)	(-1.34%)	(-1.11%)	(-1.03%)
INTL & OTHER SERV. NOT CLASSIFIED	-84.69%	-89.12%	-88.96%	-81.59%	-78.58%	-76.18%	-84.58%	-76.22%	-84.30%
	(-19.86%)	(-26.20%)	(-27.29%)	(-22.68%)	(-18.24%)	(-11.91%)	(-12.97%)	(-7.50%)	(-21.19%)
DIVISION IX	-29.51%	-49.51%	-42.96%	-38.71%	-24.86%	-8.40%	-20.19%	14.70%	-15.02%
	(-16.77%)	(-25.26%)	(-24.09%)	(-21.10%)	(-17.22%)	(-7.71%)	(-9.79%)	(-3.57%)	(-14.04%)

VI + VII + VIII + IX	10.64%	-3.26%	2.60%	0.90%	16.33%	28.16%	10.76%	42.92%	15.60%
	(-7.21%)	(-15.10%)	(-11.41%)	(-10.24%)	(-8.96%)	(0.74%)	(-3.10%)	(2.31%)	(-4.98%)
VI + VII + VIII + IX (EXCLUDING INTL & SERV. NOT CLASSIFIED)	78.35%	79.29%	90.96%	69.50%	72.39%	84.83%	54.66%	78.67%	83.32%
	(12.66%)	(11.10%)	(15.88%)	(12.44%)	(9.20%)	(12.66%)	(9.87%)	(9.81%)	(16.21%)

1. TOP ROW REFERS TO PERCENTAGE INCREASE OR DECREASE IN 1981 OVER 1961. = $\frac{1981 \text{ ABSOLUTE FIGURES} - 1961 \text{ ABSOLUTE FIGURES}}{1961 \text{ ABSOLUTE FIGURE}} \times 100$

2. FIGURES IN BRACKETS DENOTES INCREASE = % SHARE IN 1981 - % SHARE IN 1961. OR DECREASE IN PERCENTAGE POINTS.

The decline of employment in Sanitary Services can be attributed to social reforms and social change in Kerala. The decline in Personal Services can be attributed to the fact that the workers in this sector are most likely to

change their employment. The workers in this group are likely to be the poorest and most willingly will change their employment if new avenues of better employment open up.

Our analysis of the changes in Kerala's work force is by no means exhaustive or definitive. We have merely tried to give a few explanations for the changes taking place in the State. Our aim has been mainly to highlight plausible hypotheses, rather than provide conclusive evidence. In Kerala it was plantation crops, coir, cashew and fish processing and foreign trade which held the key to economic expansion. As a consequence, in Kerala there was much more labour-intensive industrialisation and this perhaps explains why Kerala, which had a per capita income below the national average in 1961 and 1981, also had the lowest share of "agriculture" in working force. We have seen a structural shift from "agriculture" to "manufacture" and "services" in Kerala. It would be facile to describe a shift from "agriculture" to "manufacture" and "services" as economic growth without examining the character of activity. Still, one can say that Kerala, with a relatively small declining) proportion engaged in "agriculture" (though in 1981 the proportion increased to some extent) and a fairly large proportion in "manufacturing" is likely to be an economically developing state, or in course of time will develop.

FOOTNOTES

1. To make Census data of 61 and 81 comparable, one had to do a lot of adjustments. See Chapter II for a discussion of the problem of comparability.
- 2.

PERCENTAGE DISTRIBUTION OF WORKERS IN MANUFACTURING IN KERALA

IN 1961 & 1981.

	TOTAL		MALES		FEMALES	
	1961	1981	1961	1981	1961	1981
ALL INDUSTRIES	3473834	4430797	2525622	3371151	948212	1059646
	29.14%	29.47%	22.86%	24.31%	45.86%	45.86%
DIVISION II & III	1012140	1305771	577296	819700	434844	486071
	29.14%	29.47%	22.86%	24.31%	45.86%	45.86%
MNF OF FOOD PRODUCTS	160786	182901	60191	79994	100595	102907
	15.89%	14.01%	10.43%	9.76%	23.13%	21.17%
MNF OF BEV & TOB PROD.	91169	131149	88290	86227	2879	44922
	9.01%	10.04%	15.29%	10.52%	0.66%	9.24%
MNF OF TEXTILES	404314	426506	154133	200606	250181	225820
	39.95%	32.66%	26.70%	24.48%	57.53%	46.46%
MNF OF WOOD & W.PROD.	174612	211331	117533	144943	57079	66388
	17.25%	16.18%	20.36%	17.68%	13.13%	13.66%
MNF OF P&P PROD, PR. & PB ETC.	12066	30191	11326	26151	740	4040
	1.19%	2.31%	1.96%	3.19%	0.17%	0.83%

Contd.

MNF OF LEATHER & FUR PROD.	3711 0.37%	4833 0.31%	3607 0.62%	3873 0.47%	184 0.02%	160 0.03%
MNF OF RUB&PL,PET&COAL PROD.	4171 0.41%	20301 1.55%	3941 0.68%	18344 2.24%	230 0.05%	1957 0.40%
MNF OF CHEM&CHEM PROD.	16094 1.59%	43334 3.32%	11808 2.05%	31962 3.90%	4286 0.99%	11372 2.34%
MNF OF NON.MET MIN PROD.	56126 5.55%	71024 5.44%	41692 7.22%	51138 6.24%	14434 3.32%	19886 4.09%
MNF OF BASIC MET PROD.	41085 4.06%	48423 3.71%	38047 6.59%	46629 5.69%	3038 0.70%	1794 0.37%
MNF OF MACH.TOOLS & ELEC. EQPTS.	1812 0.18%	23366 1.79%	1784 0.31%	20943 2.55%	20 0.01%	2423 0.50%
MNF OF TPT EQPT & PARTS	12652 1.25%	8380 0.64%	12632 2.19%	8148 0.99%	20 0.00%	232 0.05%
MISC. MNFG. & REPAIRS	33542 3.31%	104832 8.03%	32312 5.60%	100662 12.28%	1230 0.28%	4170 0.86%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i),
General Economic Tables, Delhi, Nov., 1986.

3. Tata Services Limited, Department Of Economics And Statistics, Statistical Outline Of India, Bombay, 1982, p 32.
4. Kerala, Directorate Of Economics And Statistics, Statistics For Planning, 1983, Trivandrum, compiled from Tables from pp 369, 372, 374.

5.

PERCENTAGE DISTRIBUTION OF WORKERS IN SERVICES SECTOR IN KERALA
IN 1961 & 1981.

	TOTAL		MALES		FEMALES	
	1961	1981	1961	1981	1961	1981
ALL INDUSTRIES	3473834	4438797	2525622	3371151	948212	1859646
SERVICES SECTOR	1887853	2888678	1468129	1665509	419724	423161
	54.34%	47.14%	58.13%	49.48%	44.26%	39.93%
DIVISION VI	488478	699843	378174	649215	38384	58628
	21.21%	33.51%	25.21%	38.98%	7.22%	11.96%
WHOLESALE TRADE	14157	39563	13768	37684	397	1959
	0.75%	1.89%	0.94%	2.26%	0.09%	0.46%
RETAIL TRADE	288522	489528	265791	455463	22731	34057
	15.28%	23.44%	18.18%	27.35%	5.42%	8.05%
REST. & HOTELS	97799	178768	98623	156148	7176	14612
	5.18%	8.18%	6.17%	9.38%	1.71%	3.45%
DIVISION VII	152513	377288	144913	345322	7688	31958
	8.08%	18.06%	9.87%	28.73%	1.81%	7.55%
TRANSPORT	138531	335651	132893	318322	6438	25329
	7.34%	16.07%	9.08%	18.63%	1.53%	5.99%
STORAGE & WAREHOUSING	1863	755	1688	691	263	64
	0.18%	0.04%	0.11%	0.04%	0.06%	0.02%
COMMUNICATION	12119	48874	11228	34389	899	6565
	0.64%	1.96%	0.76%	2.86%	0.21%	1.55%
DIVISION VIII	32271	93366	31542	81953	729	11413
	1.71%	4.47%	2.15%	4.92%	0.17%	2.78%
BANKING & SIMILAR FIN. INST.	11249	59629	11822	49965	227	9664
	0.68%	2.85%	0.75%	3.88%	0.05%	2.28%
PROVIDENTS & INSURANCE	2198	5873	2834	5187	156	686
	0.12%	0.28%	0.14%	0.31%	0.04%	0.16%
REAL ESTATE & BUS. SERVICES	18828	15388	18582	15898	246	298
	0.57%	0.74%	0.72%	0.91%	0.06%	0.07%
LEGAL SERVICES	8884	12484	7984	11711	188	773
	0.42%	0.68%	0.54%	0.70%	0.02%	0.18%

DIVISION IX	1302591	918181	921500	589019	381091	329162
	69.00%	43.96%	62.77%	35.37%	90.80%	77.79%
PUB. ADMN. & DEF. SERVICES	98121	182279	92211	156162	5910	26117
	5.20%	8.73%	6.28%	9.38%	1.41%	6.17%
SANITARY SERVICES	6454	463	4703	385	1751	78
	0.34%	0.02%	0.32%	0.02%	0.42%	0.02%
EDNL, SCI. & RES. SERVICE	131352	271422	82253	136725	49099	134697
	6.96%	12.99%	5.60%	8.21%	11.70%	31.83%
MEDICAL & HEALTH SERVICE	37082	78253	28170	42853	8912	35400
	1.96%	3.75%	1.92%	2.57%	2.12%	8.37%
COMMUNITY SERVICES	41596	60558	35641	50815	5955	9743
	2.20%	2.90%	2.43%	3.05%	1.42%	2.30%
REC. & CULT. SERVICES	6837	17382	6234	16130	603	1244
	0.36%	0.83%	0.42%	0.97%	0.14%	0.29%
PERSONAL SERVICES	197125	187791	92147	89673	104978	98118
	10.44%	8.99%	6.28%	5.30%	25.01%	23.19%
INTL&OTHER SERV. NOT CLASSIFIED	784024	120033	580141	96260	203003	23765
	41.53%	5.75%	39.52%	5.78%	48.58%	5.62%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (ii), General Economic Tables, Delhi and Census Of India, 1981, Series-10, Kerala, Part III-A & B (i),

8. To make Census data of 61 and 81 comparable, one had to club together the four districts that is to say Kozhikode- Palghat- Malappuram-Wayanad together as one region and Kottayam-Idukki together as one region . See also Chapter II for a discussion of the problem of comparability.

CHAPTER VI

CONCLUSION

An attempt has been made in the foregoing chapters to analyse the form and content and the changes which have taken place in the distribution of industrial workers in Kerala. Plausible explanations and reasons for such developments and changes during the two decades (1961 to 1981) have also been indicated.

Patterns of shift from agriculture to non-agriculture are supposed to constitute the essential aspect of the structural change that is associated with modern economic growth. However, such an interpretation should be qualified by a number of considerations.

Firstly, any decline or increase in employment in manufacturing needs to be examined closely. There may be instances where the employment (though, not output) in manufacturing declines sharply because of traditional manufacturing being replaced by modern manufacturing sector. On the other hand, a rise in share of manufacturing in the work force may be because the bulk of employment in that activity is already modern. While the latter could be described as economic progress, the former cannot be described as an economic decline. Thus an explanation of change in terms of high and low shares in manufacturing in

the work force and the changes in these shares over time, may prove inadequate, unless we can specify the character of manufacturing.

Secondly, a large share of employment in Services sector may be the result of factors, other than rapid economic growth. This activity may actually be a result of surplus labour. In fact, Bauer and Yamey have laid stress on this and said that a poor economy might have a fairly high proportion engaged in services because of a large number of under-employed persons in trade and petty services¹.

The implications of the development of plantation industries and processing of local products on the economy of Kerala is wide-spread and of paramount importance. Foreign trade also played a big role in this context. Figures available for the port of Cochin (which served Cochin, Travancore and Malabar territories, later to form the state of Kerala) indicate that the aggregate value of trade in 1870's (exports and imports together) was about Rs.0.015 crore². In the 1920's, it was around Rs.0.105 crore-about seven times the initial level. In the 1930's, a new export product, cashew kernels, emerged. (In 1930's cashew kernels worth Rs. 7.5 lakhs were exported from Travancore, whereas in 1921 there was no exports at all). In 1980-81 cashew kernels worth about Rs.13 crores were

exported, while the total exports amounted to Rs.51 crores approximately³. The implications of all these developments can well be imagined. The increase in Trade and Commerce, Transport, Storage and Communications and Other Services reflect these developments.

Finally, let us compare the shares of working force and Domestic Product, among different sectors . The relevant estimates are given in Table 6.1.

TABLE 6.1
 SECTORAL SHARES IN WORKING FORCE AND PRODUCT AND
 INTER - SECTORAL DIFFERENCES IN KERALA
 AND ALL-INDIA FOR 1960-61 & 1980-81
 (@ 70-71 Constant Prices)

	PERCENT OF WORKERS IN KERALA		PERCENT OF NET DOMESTIC PROD.		SECTORAL PROD. PER WORKER	
	1960-61	1980-81	1960-61	1980-81	1960-61	1980-81
KERALA						
AGRI, H, F & F	38.30	43.24	50.41	38.85	1.32	0.89
MINING & QUARRYING	8.66	9.97	0.15	0.09	0.02	0.009
PRIMARY SECTOR	46.96	53.21	50.56	38.94	1.08	0.73
MANUFACTURE	18.08	16.54	14.20	15.52	0.78	0.94
CONSTRUCTION	1.26	2.88	2.87	5.65	2.28	1.96
SECONDARY SECTOR	19.34	19.42	17.07	21.17	0.88	1.09
TRAN., STRG. & COMMN	8.43	15.06	16.19	17.39	1.92	1.15
& TRD., HOT. & REST.						
OTHER SERVICES	25.28	12.30	16.18	22.49	0.64	1.83
TERTIARY SECTOR	33.71	27.36	32.37	39.88	0.96	1.46
ALL-INDIA						
	PERCENT OF WORKERS IN INDIA		PERCENT OF NET DOMESTIC PROD.		SECTORAL PROD. PER WORKER	
	1960-61	1980-81	1960-61	1980-81	1960-61	1980-81
AGRI, H, F & F	69.51	68.37	55.70	41.51	0.80	0.61
MINING & QUARRYING	2.76	2.77	0.90	0.99	0.33	0.36
PRIMARY SECTOR	72.27	71.14	56.70	42.50	0.78	0.60
MANUFACTURE	10.61	10.85	12.00	14.94	1.13	1.38
CONSTRUCTION	1.09	1.59	5.00	6.13	4.59	3.86
SECONDARY SECTOR	11.70	12.44	17.00	21.07	1.45	1.69
TRAN., STRG. & COMMN	5.66	8.45	13.50	18.49	2.39	2.19
& TRD., HOT. & REST.						
OTHER SERVICES	10.37	7.97	12.80	17.93	1.23	2.25
TERTIARY SECTOR	16.03	16.42	26.30	36.42	1.64	2.22

Source: - Statistics For Planning, 1977 and 1986, Department Of Economics And Statistics, Trivandrum, Government Of Kerala and Statistical Outline Of India, 1982 and 1985, Department Of Economics And Statistics, Tata Services Limited.

The following aspects of development and changes are worthy of note in the pattern of worker's participation in Kerala, over the two decades (1960-61 to 1980-81).

- (i) The share of the primary sector in the work force in Kerala showed an increase of 6.25 percentage points (from 46.96% to 53.21%), whereas its share of the state domestic product showed a decrease of 11.66 percentage points (from 50.60% to 38.94%). The product per worker (ratio of percentage share of Domestic Product to percentage share of workers) also decreased from 1.08 to 0.73 over the period. However, the product per worker continued to remain higher than the All-India figures (1960-61: Kerala-- 1.08; All-India-- 0.78 and 1980-81: Kerala-- 0.73; All-India-- 0.60). This could be mainly due to the relatively high productivity (per unit of land or per unit of labour) in agriculture and allied activities, especially in plantations.
- (ii) The share of secondary or industrial sector in work force underwent little or no change in Kerala, but its share in the State Domestic Product registered a rise (from 17.07% to 21.17%), leading to slight

increase in the product per worker. However, in Kerala, the product per worker in this sector continued to be very much below the All-India figures (1960-61: Kerala-- 0.88; All-India-- 1.45 and 1980-81: Kerala-- 1.09; All-India-- 1.69).

(iii) The share of the tertiary or services sector in the work force decreased from 33.71% to 27.36%, whereas its share in State Domestic Product showed an increase from 32.37% to 39.88%, giving a rise of 0.50 in the product per worker (from 0.96 to 1.46). However, the product per worker in Kerala continued to be much less than that of All-India (1960-61: Kerala-- 0.96; All-India-- 1.64 and 1980-81: Kerala-- 1.46; All-India-- 2.22).

(iv) The sectoral product per worker in "Other Services" also continued to be very much below the All-India figures (1960-61: Kerala-- 0.64; All-India-- 1.23 and 1980-81: Kerala-- 1.83; All-India-- 2.25).

(v) In 1960-61, the product per worker in the Secondary or industrial sector in Kerala is lower than that in the Primary or agricultural sector, but over the two decades (1960-61 to 1980-81), it turned out

to be higher, to fall in line with most countries, irrespective of levels of economic development.

- (vi) In Kerala, the product per worker in the Tertiary or Services sector continued to be higher than that in the Secondary or industrial sector, departing from the general pattern observed elsewhere in the world*.

In Kerala, the relatively low product per worker in the tertiary or services sector in general and in "Other Services" in particular, is incompatible with the view that the growth of tertiary sector in Kerala is a natural concomitant of the growth in the primary and secondary sectors. On the contrary, available evidence reviewed here, appears to conform to the observation of Simon Kuznets that in some less developed countries "population pressure on land and limitations of employment in the industrial sector drive the surplus labour into low-paid service activities".

Contrary to the normal expectations, one finds that the product per worker in the tertiary sector is much lower than the All-India average. The reasons for this could be a combination of two factors. Firstly, the tertiary sector in Kerala would have grown as a residual sector. That is to say, workers who cannot find employment in the agricultural sector and industrial sector spill over to services sector,

where they are readily absorbed in some kind of petty activity; in other words, the services sector acts as a sponge for the excess labour. Secondly, a major factor contributing to the development of tertiary sector in Kerala was the high priority given in the successive Plans for social services, transport and infrastructure development.

The basic development issue of Kerala is that the productive base of the primary and secondary sectors is weak, forcing Kerala to depend on imports of bulk share of food grains, consumer goods and other industrial products. Among the three sectors, there is a considerable scope for development of the secondary and tertiary sectors. Rapid industrialisation, with an emphasis on generation of more employment, should be one of the basic goals of development. In the tertiary sector, there is considerable scope for the development of trade, commerce, catering business, tourist activities, transportation etc. For achieving rapid economic development, Government themselves should go in for some selected ventures and also encourage private investment, by creating favourable conditions through various policy measures.

FOOTNOTES

1. P.T.Bauer and B.S.Yamey, "Economic Progress And Occupational Distribution", Economic Journal, LXI, 1951, pp. 747-748.
2. Census Of India, 1931, Cochin, Volume XXI, Part I, Report, Cochin, 1932.
3. Statistics For Planning, 1983, Department Of Economics And Statistics, Trivandrum, Government Of Kerala. pp 229
4. Simon Kuznets, Economic Growth Of Nations - Total Output And Production Structure, Harvard University Press, Cambridge, (Mass.), 1971.

APPENDICES

APPENDIX I

DISTRIBUTION OF WORKER POPULATION BY INDUSTRIAL CLASSIFICATION (OTHER THAN CULTIVATORS AND AGRICULTURAL LABOURERS) BY DIVISIONS AND MAJOR GROUPS IN PRIMARY SECTOR IN KERALA AND ITS DISTRICTS IN 1961 & 1981

		AK	CNNR	KZHD & PLG & MLPM & WYND.	TCR	EKM	KTYM & IDKKI.	ALPY	QLN	TVM
DIVISION 0 AGRI, H, F & F	1961	13.54%	10.23%	13.40%	10.33%	9.21%	38.62%	9.16%	9.81%	7.90%
	1981	16.15%	13.62%	18.37%	12.93%	11.04%	34.98%	13.18%	12.91%	9.71%
DIVISION I MINING & QUARRYING	1961	0.66%	0.86%	0.61%	0.86%	0.70%	0.44%	0.25%	1.44%	0.20%
	1981	1.33%	2.88%	1.87%	1.14%	1.10%	0.62%	0.66%	1.00%	0.58%
DIVISIONS 0 + I	1961	14.20%	11.10%	14.01%	11.19%	9.91%	39.06%	9.41%	11.25%	8.11%
	1981	17.49%	16.50%	20.24%	14.06%	12.13%	35.60%	13.84%	13.91%	10.28%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November 1986.

APPENDIX II
DISTRIBUTION OF WORKER POPULATION BY INDUSTRIAL CLASSIFICATION (OTHER THAN
CULTIVATORS AND AGRICULTURAL LABOURERS) BY DIVISIONS AND MAJOR GROUPS
IN SECONDARY SECTOR IN KERALA AND ITS DISTRICTS IN 1961 & 1981

		AK	CNR	KZHD& PLG& MLPH& HYND.	TCR	EKH	KTYH & IDKKI.	ALPY	QLN	TVH
DIVISION II & III	1961	29.14%	28.74%	22.89%	27.57%	28.88%	16.19%	41.52%	47.27%	29.58%
	1981	29.47%	34.97%	24.87%	31.21%	29.72%	16.67%	37.15%	39.69%	27.85%
MHF OF FOOD PRODUCTS	1961	4.63%	3.55%	3.02%	3.13%	2.29%	1.34%	3.56%	19.87%	3.76%
	1981	4.13%	1.62%	2.39%	3.42%	3.05%	1.88%	5.20%	15.35%	2.75%
MHF OF BEV & TOB PRODUCTS	1961	2.62%	5.55%	2.46%	1.85%	2.89%	3.19%	2.05%	2.02%	1.11%
	1981	2.96%	15.58%	1.71%	2.69%	0.70%	0.74%	1.22%	1.71%	0.97%
MHF OF TEXTILES	1961	11.64%	12.02%	7.00%	8.02%	9.68%	3.71%	29.39%	14.33%	15.41%
	1981	9.63%	9.13%	0.33%	6.78%	6.13%	3.75%	22.17%	10.72%	12.90%
MHF OF WOOD & WOOD PRODUCTS	1961	5.03%	3.63%	5.18%	7.56%	6.80%	3.31%	3.37%	5.18%	4.82%
	1981	4.77%	3.51%	4.98%	7.68%	5.79%	3.78%	3.29%	4.71%	3.94%
MHF OF P&P PROD, PR & PB ETC.	1961	0.35%	0.16%	0.21%	0.35%	0.43%	0.39%	0.22%	0.62%	0.60%
	1981	0.68%	0.28%	0.77%	0.70%	0.86%	0.96%	0.34%	0.65%	0.75%
MHF OF LEATHER & FUR PRODUCTS	1961	0.11%	0.16%	0.13%	0.13%	0.13%	0.08%	0.06%	0.06%	0.07%
	1981	0.09%	0.11%	0.11%	0.17%	0.15%	0.05%	0.03%	0.03%	0.05%
MHF OF RUB&PL, PET& COAL PRODUCTS	1961	0.12%	0.02%	0.06%	0.07%	0.08%	0.42%	0.12%	0.15%	0.12%
	1981	0.46%	0.18%	0.24%	0.66%	0.87%	1.05%	0.28%	0.22%	0.41%
MHF OF CHEM&CHEM PRODUCTS	1961	0.46%	0.49%	0.40%	0.58%	1.21%	0.27%	0.24%	0.37%	0.14%
	1981	0.98%	0.41%	0.85%	0.78%	2.78%	0.70%	0.61%	0.82%	0.70%
MHF OF NON.MET MIN PRODUCTS	1961	1.62%	1.17%	1.72%	2.69%	2.34%	1.17%	0.60%	1.99%	1.05%
	1981	1.68%	1.11%	1.50%	3.06%	2.79%	0.45%	0.77%	1.86%	1.20%
MHF OF BASIC MET PRODUCTS	1961	1.18%	0.80%	1.32%	1.18%	1.53%	1.19%	0.89%	1.49%	0.86%
	1981	1.09%	0.67%	1.19%	1.25%	1.52%	1.01%	0.94%	1.21%	0.73%

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MNF OF MACH. TOOLS & ELEC. MACHINERY	1961	0.05%	0.03%	0.03%	0.07%	0.06%	0.07%	0.03%	0.13%	0.03%
	1981	0.53%	0.18%	0.25%	0.41%	1.92%	0.26%	0.32%	0.50%	0.49%
MNF OF TPT EQPT & PARTS	1961	0.36%	0.22%	0.23%	0.32%	0.64%	0.33%	0.30%	0.32%	0.64%
	1981	0.19%	0.06%	0.08%	0.09%	0.75%	0.08%	0.29%	0.11%	0.09%
MISC. MNFG. & REPAIRS	1961	0.97%	0.94%	1.12%	1.61%	0.82%	0.72%	0.60%	0.73%	0.98%
	1981	2.37%	2.14%	2.47%	3.53%	2.39%	1.94%	1.60%	1.79%	2.87%
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DIVISION IV	1961	0.28%	0.09%	0.12%	0.42%	0.29%	0.59%	0.26%	0.37%	0.39%
	1981	0.85%	0.36%	0.59%	0.74%	0.03%	1.33%	0.00%	1.00%	1.55%
ELEC. GAS & STEAM	1961	0.25%	0.09%	0.11%	0.40%	0.23%	0.50%	0.23%	0.35%	0.27%
	1981	0.73%	0.30%	0.52%	0.66%	0.70%	1.26%	0.70%	0.95%	1.15%
WATER WORKS & SUPPLY	1961	0.03%	0.00%	0.01%	0.02%	0.06%	0.02%	0.03%	0.02%	0.12%
	1981	0.11%	0.07%	0.08%	0.07%	0.13%	0.08%	0.10%	0.05%	0.40%
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DIVISION V CONSTRUCTION	1961	2.04%	1.76%	2.07%	1.95%	2.74%	2.42%	1.54%	1.67%	2.02%
	1981	5.06%	4.95%	4.81%	5.35%	8.10%	3.91%	4.04%	3.65%	5.39%
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DIVISIONS II + III + IV + V	1961	31.46%	30.59%	25.00%	29.93%	31.90%	19.20%	43.32%	49.31%	31.99%
	1981	35.37%	40.29%	30.27%	37.29%	38.64%	21.91%	41.98%	44.34%	34.79%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and
Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi,
November 1986.

APPENDIX III

DISTRIBUTION OF WORKER POPULATION BY INDUSTRIAL CLASSIFICATION (OTHER THAN
CULTIVATORS AND AGRICULTURAL LABOURERS) BY DIVISIONS AND MAJOR GROUPS
IN TERTIARY SECTOR IN KERALA AND ITS DISTRICTS IN 1961 & 1981

		AK	CNMR	KZHD & PLG & MLPM & WYND.	TCR	EKM	KTYM & IDKKI.	ALPY	QLN	TVM
DIVISION VI	1961	11.53%	12.99%	11.53%	11.35%	11.77%	9.61%	11.73%	10.97%	12.25%
	1981	15.79%	18.18%	18.23%	15.79%	14.53%	13.91%	14.51%	13.56%	14.22%
WHOLESALE TRADE	1961	0.41%	0.33%	0.35%	0.33%	0.78%	0.42%	0.48%	0.31%	0.29%
	1981	0.89%	0.88%	0.96%	0.58%	1.49%	1.17%	0.84%	0.48%	0.59%
RETAIL TRADE	1961	8.31%	9.65%	8.30%	8.02%	8.12%	6.86%	8.46%	7.71%	9.37%
	1981	11.05%	12.73%	12.14%	11.25%	10.19%	9.95%	10.14%	9.89%	10.60%
REST. & HOTELS	1961	2.82%	3.01%	2.88%	3.00%	2.88%	2.33%	2.80%	2.95%	2.59%
	1981	3.85%	4.56%	5.13%	4.04%	2.86%	2.79%	3.53%	3.19%	3.03%
DIVISION VII	1961	4.39%	3.39%	4.60%	4.22%	7.12%	3.00%	4.63%	3.95%	3.55%
	1981	8.51%	7.32%	9.55%	8.88%	11.32%	6.05%	7.50%	6.46%	9.06%
TRANSPORT	1961	3.99%	3.13%	4.19%	3.89%	6.58%	2.63%	4.20%	3.60%	3.04%
	1981	7.58%	6.50%	8.72%	7.86%	10.37%	5.07%	6.70%	5.66%	7.54%
STORAGE & WAREHOUSING	1961	0.05%	0.01%	0.08%	0.00%	0.13%	0.02%	0.10%	0.01%	0.03%
	1981	0.02%	0.02%	0.03%	0.01%	0.02%	0.01%	0.01%	0.00%	0.02%
COMMUNICATION	1961	0.35%	0.26%	0.32%	0.32%	0.40%	0.36%	0.32%	0.34%	0.49%
	1981	0.92%	0.80%	0.81%	1.00%	0.93%	0.97%	0.79%	0.79%	1.50%
DIVISION VIII	1961	0.93%	0.74%	0.83%	0.99%	1.32%	0.85%	0.95%	0.80%	1.03%
	1981	2.11%	1.78%	1.86%	2.76%	2.62%	1.96%	1.99%	1.58%	2.62%
BANKING & SIMILAR FIN. INST.	1961	0.32%	0.25%	0.29%	0.47%	0.47%	0.33%	0.29%	0.21%	0.32%
	1981	1.35%	1.17%	1.06%	1.96%	1.69%	1.36%	1.29%	0.93%	1.70%

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PROVIDENTS & INSURANCE	1961	0.06%	0.05%	0.03%	0.05%	0.07%	0.05%	0.06%	0.04%	0.20%
	1981	0.13%	0.13%	0.12%	0.10%	0.16%	0.10%	0.10%	0.07%	0.30%
REAL ESTATE & BUS. SERVICES	1961	0.31%	0.25%	0.32%	0.29%	0.49%	0.28%	0.35%	0.35%	0.14%
	1981	0.35%	0.31%	0.46%	0.46%	0.43%	0.27%	0.30%	0.19%	0.18%
LEGAL SERVICES	1961	0.23%	0.19%	0.19%	0.19%	0.28%	0.19%	0.26%	0.21%	0.38%
	1981	0.28%	0.18%	0.23%	0.23%	0.34%	0.23%	0.30%	0.39%	0.44%
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DIVISION IX	1961	37.50%	41.19%	43.94%	42.32%	37.97%	28.28%	29.97%	23.73%	43.07%
	1981	20.72%	15.93%	19.05%	21.22%	20.75%	20.57%	20.10%	20.16%	29.03%
PUB. ADMN. & DEF. SERVICES	1961	2.82%	2.34%	2.29%	2.70%	3.86%	1.76%	2.19%	2.05%	6.27%
	1981	4.11%	2.82%	3.16%	2.97%	4.39%	3.40%	4.01%	4.35%	9.46%
SANITARY SERVICES	1961	0.19%	0.14%	0.18%	0.19%	0.25%	0.13%	0.14%	0.11%	0.35%
	1981	0.01%	0.00%	0.01%	0.01%	0.02%	0.00%	0.01%	0.02%	0.00%
EDNL, SCI. & RES. SERVICES	1961	3.78%	3.72%	3.30%	3.96%	3.38%	3.61%	4.28%	4.70%	4.06%
	1981	6.13%	5.34%	5.75%	6.07%	5.18%	6.64%	6.09%	6.67%	8.14%
MEDICAL & HEALTH SERVICES	1961	1.07%	0.87%	0.88%	1.04%	1.13%	1.16%	1.22%	1.13%	1.38%
	1981	1.77%	1.27%	1.59%	1.60%	1.74%	2.14%	2.12%	1.75%	2.22%
COMMUNITY SERVICES	1961	1.20%	1.28%	1.23%	1.13%	1.26%	1.18%	1.36%	1.07%	1.00%
	1981	1.37%	1.42%	1.85%	1.17%	1.06%	1.24%	1.31%	1.15%	1.00%
REC. & CULT. SERVICES	1961	0.20%	0.21%	0.18%	0.28%	0.21%	0.16%	0.22%	0.14%	0.18%
	1981	0.39%	0.35%	0.37%	0.43%	0.41%	0.42%	0.40%	0.30%	0.51%
PERSONAL SERVICES	1961	5.67%	4.04%	5.97%	6.30%	6.28%	5.59%	5.65%	5.42%	5.63%
	1981	4.24%	2.35%	4.50%	4.94%	4.59%	3.95%	4.32%	4.31%	4.60%
INTL & OTHER SERV. NOT CLASSIFIED	1961	22.57%	28.58%	29.91%	26.70%	21.61%	14.69%	14.91%	9.11%	24.20%
	1981	2.71%	2.38%	2.62%	4.02%	3.37%	2.78%	1.94%	1.60%	3.01%
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DIVISIONS VI + VII + VIII + IX	1961	54.34%	58.31%	60.91%	58.80%	58.19%	41.74%	47.28%	39.45%	59.90%
	1981	47.14%	43.21%	49.49%	48.64%	49.23%	42.49%	44.18%	41.76%	54.92%
DIVISIONS VI + VII + VIII + IX (excluding intl. & other services not classified)	1961	31.70%	29.73%	31.00%	32.18%	36.58%	27.05%	32.37%	30.34%	35.70%
	1981	44.43%	40.83%	46.88%	44.62%	45.86%	39.71%	42.24%	40.15%	51.91%

Source: Census Of India, 1961, Volume- VII, Kerala, Part II B (i), General Economic Tables, Delhi and Census Of India, 1981, Series-10, Kerala, Part III-A & B (i), General Economic Tables, Delhi, November 1986.

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