REGIONAL DEVELOPMENT IN KERALA: A STUDY OF MALAPPURAM DISTRICT

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Certificate

Certified that the thesis " REGIONAL DEVELOPMENT IN KERALA : A STUDY OF MALAPPURAM DISTRICT", is a bonafide piece of research done by Mr. P. Anvar under my supervision. The thesis is worth submitting for the award of the Degree of Doctor of Philosophy in Economics.

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INTRODUCTION

Planners were concerned with regional development problems, particularly regional disparities in development, from the very beginning of planning in India. A reference to the need for reducing such disparities was made in the very First Plan (1951) document, viz, the draft Outline of the First Fiver Year Plan. Successive Five Year Plans have referred to the subject and to the related issue of dispersal of industries and other economic activities away from large cities. The Third Plan (1961) contained a chapter on Balanced Regional Development, in which these issues are discussed in detail. Despite the continued emphasis given to the attainment of regional balance, disparities still exist among the states in India and among districts within the state.

Review of literature on the issue of regional disparities, however, reveals that most of the studies are not comprehensive in nature. They are partial in the sense that regional disparities are expressed in terms of limited number of economic and social indicators. Development is a multidimensional process and its impact cann't be explained by any single indicator. Moreover, a number of indicators, when analysed individually don't provide an integrated and easily comprehensive picture of the reality. Therefore, there is need for building up of a composite index of development combining the various socio-economic variables combined in an optimum manner.

Inspite of nearly five decades of experience in development planning in India, very little constructive action has been made to regional aspects of economic development. Consequently, policies and programmes for economic development of backward areas and the distribution of income and employment over the whole country have been neglected. It is reflected in the words of Isard and Reiner (1961): "where adequate regional economic development plans and

programmes are lacking the likelihood of success of national economic development programme is decreased and the over all gains from national investments reduced. Hence the nation suffers and since each region is part of the nation in general the region suffers too".

A good number of studies have been done by individuals and different agencies on inter-regional variations at different levels. The present study makes an analysis of the various developmental issues of Malappuram District, with respect to which no other studies are conducted so far. The district was formed in 1969 by taking backward taluks from Kozhikode and Palakkad districts of Kerala. It is proposed to collect and analyse the data available from its inception upto 2001.

Statement of the Problem

One of the major objectives of the planning process is to achieve balanced regional development. But planning in India tended to be highly centralised. Consequently, the disparities between the regions widened. Kerala is also characterised by inter-regional variations in economic development. The big disparities will create the forces of discontent and disintegration in the society. For implementing correct programmes for reducing regional imbalance, the magnitude of inter district variations should be identified.

The state of Kerala is traditionally characterised by regional and sectoral disparities in development. The concentration of economic activities in some regions of the state had resulted in the emergence of backward agrarian rural pockets in some other regions. The concentration of industries and thus employment opportunities have pushed the population to such prospective regions to experience better living conditions.

Compared to the districts of Travancore-Cochin area, the districts in Malabar region are considered to be the backward districts with inter-regional disparities in development. With an inherited imbalance, the developmental measures activities implemented in this area, had aggravated the situation. Any deliberate effort to reduce the disparities among the regions calls for such policy measures as to stimulate the lagging regions. This implies the need for identification of backward districts or regions. In a developing state like Kerala, the identification of backward districts or regions could be helpful for the government or any other development agencies in formulating regional plans to reduce disparities and strengthen the weak points and thus ensuring regional balance of the state economy in the process of development.

The inter-regional disparities in the process of economic development is not particular to developed or developing countries. It is common to all economies irrespective of their stages of development or size or geographical area, but may vary in accordance with their levels of growth. As Hemaletha Rao (1977) puts it, "The poor countries are characterised by large and growing regional disparities and the rich countries are generally characterised by small and diminishing gaps."

It is a fact that, in India, low income, low skilled population tend to be concentrated in certain areas of some particular regions with agricultural and allied activities as their main occupation. As against this, high income, highly skilled professional population tend to be concentrated in high quality residential areas. For example, Punjab is comparatively more advanced in agricultural production, Gujarat and Maharashtra for industrial activities, Bombay for textiles and Kerala for educational achievements. What it implies is that, the facilities such as housing, water supply, sanitation, health care, educational institutions, banking etc. may vary in accordance with the level of a region's development.

Malappuram is the most backward district in the state. But no effort was made to identify the relative backwardness of the district among the districts in Kerala. Since regional studies have made little attempt to explore the backwardness and the extent of regional variations among the districts in Kerala, it is essential to make a study in that direction

To remove the inter-district regional imbalances, particular programmes have to be formulated keeping in view of a particular situation and policies have to be pursued. To formulate the programmes and pursue policies, identification of backward areas is necessary. Several scholars have used different techniques for the identification of the backward regions, viz., total rank score method, simple indices method, principal component analysis and backlog removal method.

Some other scholars have used per capita income as the best method for the identification of the backward regions, but this will not give correct picture of the backwardness. For instance, there are some states, with higher per capita income, but contains many backward areas in itself.

Some scholars have used 'sectoral income method' for the identification of backwardness. The districts, which possess higher percentage of tertiary sectoral income in the total income of the district is considered as developed. The regions which received higher percentage of income from primary sector are considered as backward districts.

In this study identification of backwardness of the districts in Kerala is made on the basis of over all composite index of development

Available studies are not perfect because inter-regional variations are expressed in terms of limited number of indicators. It is a fact that unless we have an idea of the magnitude of the real problem, no proper and effective measures can be initiated. Therefore, the main problem is to find out the extent of

regional disparities among the districts of Kerala and to identify the position of Malappuram district in terms of important indicators of development.

Moreover, the planning process followed in Kerala during the last decades has not helped in bringing distributive justice in the distribution of the benefit of the economic development. For achieving the aim of balanced regional development, plan outlay will have to be allocated in such a way that backward districts get relatively larger share of plan outlay compared to developed districts. The present system of distributing funds to districts in Kerala is inequitable. The problem here is to find out the existing disparity in the distribution of plan funds to different districts in Kerala.

REVIEW OF LITERATURE

A number of studies were conducted by individuals, institutions, government and private agencies to identify the socio economic disparities at international, national and regional levels and to work out composite index of development at different levels. For example Adelman and Harris (1967) use forty indicators of socio-cultural, political and economic development to analyse the process of development in seventy four developing countries. Some of the indicators are traditional such as per capita GNP, some are distinctly non-traditional, e.g. strength of democratic institutions, degree of national integration etc. Their study underscores the importance of non- economic factors in explaining growth within and between different stages of development.

Morris and MC Alpin (1982) have developed a measure that can help policy makers determine the extent to which their policies actually do benefit greater or smaller proportions of their societies. The measures are called the Physical Quality of Life Index (PQLI). It is computed on the basis of infant mortality, life expectancy at age one and basic literacy. These three components are fairly sensitive to change in the distribution of benefits of development. Morris and Mc Alpin have computed PQLI for 150 countries.

Uphoff and Esman (1983) identify seven dimensions of rural development in their study of eighteen country cases, aimed at establishing relationships between local organisations and rural development.

1. Agricultural productivity measured in terms of average cereal yields per hectare and per capita total agricultural production.
2. Improved technology measured in terms of fertilisers per hectare, irrigated area as percent of cultivated area.
3. Rural welfare measured in terms of levels of nutrition, health and education.
4. Security measured in terms of protection from natural disaster, violence etc.
5. Income distribution measured in terms of the ratio of income accruing to the top 20 percent of households and the bottom 20 percent.
6. Rate of population growth and the levels of employment.
7. Political administrative participation measured in terms of electoral participation.

They have done an ingenious job of first making quantitative estimates of all these seven dimensions of rural development for a sample of eighteen countries and then ranking the countries in terms of each of these dimensions.

V.G. Bhatia (1998), in his analysis, reviews the economic performance of the developing countries in the Asian and Pacific region and assesses their future prospects. In this study he examines the causes of the inter-regional variations in economic growth rate. For convenience, he has grouped the Asian and Pacific developing countries into four sub regions. South Asia, South East Asia, East Asia and South Pacific. On the basis of his analysis he has come to the general conclusion that per capita income and life expectancy are correlated. He again found that per capita income is also correlated with literacy in the Asia and Pacific Region. Again countries like Srilanka, Burma, People's Republic of China, Philippines and Tailand have achieved high levels o literacy

with low per capita income. His analysis is confined to those countries for which relevant data are available. Moreover, he takes very limited number of indicators for identifying interregional variations.

N.N. Mikheera (1999) examines the divergence of Russian regional economic indicators in 1990-96. The author gives proof of growing interregional inequalities in income and average per capita gross regional product over the period of reform. The contribution of certain sectors to regional variations is given in a quantitative estimate. The limited effect of short and medium –term regional policies on inter-regional inequality is noted.

Hemalatha Rao (1972) has examined the interregional variations on the basis of composite indices of development, among the states in India. The study takes four specific sectors, viz; agriculture, industries, banking and education and uses 24 variables to construct the indices of development. Hemalatha Rao has looked into the question in a number of studies using the techniques of principal component analysis. She used ranks and the coefficient of variation to identify the inter state imbalances. However, the study is not comprehensive enough to present a clear picture of the pattern of change in inter-state disparities.

S.K. Rao (1973) examines the inter- regional variations in India on the basis of a composite index of development. The comparison of the performance the district has been made at two points of time- early 50's and early 60s. The study used six indicators for constructing composite index of development of a region. They are, (1) Per capita crop production (2) main workers in manufacturing (3) pr capita consumption of power in industry (4) per capita output of organised industry (5) Infant death rate and (6) Literacy rate. On the basis of above indicators the states were classified into a (1) well developed (2) not so developed and (3) least developed. The study shows that regional variations persist despite the efforts have been made under the Five Year Plans to

reduce the imbalances. The study uses only limited number of indicators, therefore composite index doesn't represents the socio- economic character of economic development.

Prof. V.K. R.V. Rao (1984) chooses to make a long term study of India's national income during the post independence period, and he used national accounts to an economic analysis of growth and change between 1950 – 51 and 1979-80. Several policy conclusions were drawn regarding the growth ratio, sectoral composition of income, savings behaviour and so on. According to Rao the growth pattern and distribution of national income substantially depends upon the policies of the government. In a federal country, it is the fiscal policy of not only of the federal govt. but also of the federating units that are important in reducing inequalities in the distribution of income and wealth and in promoting economic growth.

Chakradhar Sinha (1985) in his study, analyses the problem of regional imbalances in India with the help of selected indicators of development. This study is divided into four parts. The first part presents the theoretical framework explaining the nature and causes of regional disparities in the country. The third deals with the economic backwardness of Bihar, which presents a glaring case of regional disparity in economic development. Finally, an attempt is made in the fourth part to diagnose the problem under study and suggest certain measures within the framework of national objectives to serve as broad guidelines for evolving strategy for bringing about a progressive reduction in inequalities in the pace of development and thereby to achieve the goal of balanced regional development in the country. The study takes the following indicators of development to measure the regional imbalances.

1. Indices of income, poverty and unemployment
2. Per capita value added by manufacture
3. Infrastructure

4. Level of urbanisation
5. Level of literacy
6. Resource allocation indicators, and
7. Agricultural indicators.

The study has shown that state of Bihar is lagging behind the national average on almost all the fronts and much behind the progressive states of the country. The study is not comprehensive because it takes only a few indicators of development.

B.M. Joshi (1987) analysed the magnitude and trends in interstate disparity in infrastructural development over the period 1961-86. He took the state as the unit of analysis. A broader view of infrastructure was taken and all basic economic and social services were included under infrastructure. Power irrigation, transport, banking health and education were taken as items of study under infrastructure. A total of 12 indicators have been selected for the purpose of the study. The study used only limited number of indicators. It will not provide integrated picture of the reality.

C.K. Degaonkar (1990) makes an attempt to asses the process of regional growth- the growth poles and growth centres, their emergence and their role in the development of regions. He also attempts to identify the backward pockets of Gulbarga district in Karnataka. It is an attempt to develop a conceptual framework of a district plan in multi- level planning structure. He uses secondary data for his study. The regional development within the district economy is analysed with the help of 22 socio-economic indicators. The analysis is done at four points in time 1971-72, 1976-77,1981-82,and 1985-86 to get a comparative picture of development. His analysis is purely on the basis of secondary data. But the non- availability of the data in respect of many comparative indicators for a period earlier than 1971-72 was a major problem.

Dietmar Rothermund (1991) analyses the regional disparities in India by taking certain social and economic indicators of development. He uses census data of 1971 and 1981 for the comparison. He examines six economic indicators and five social indicators and construct their respective ranking scales and makes comparison between this. Final relative positions of states are determined through the summation of individual ranks. The study considers only 15 states for comparisons and it is not multi-dimensional. Moreover, the degree of Inter-regional disparities is not identified.

Malini Karkal and S. Irudaya rajan (1991) attempted to examine inter state variations in economic development on the basis of Physical Quality of Life (PQLI) measure. They constructed PQLI for the states in India. They followed the method adopted by Morris D. Morris (1979). The three measures that are used to develop P.Q.L.I are infant mortality rates, life expectancy at age one and literacy of population aged fifteen and above. The main purpose of the study was to point out the distributional injustice in the gains of development among the different regions in India. The study also examines the relationship between GNP and PQLI in the states of India. This study takes state as a unit for the comparison. Regional variation in quality of life Index within the state were not examined.

Sharma (1993) in his empirical study examined the relative contribution of various sectors to G.D.P. His study shows that the growing contribution of tertiary and secondary sectors to G.D.P is a healthy trend in the direction of economic development in India. On the basis of sectoral contribution to G.D.P, he analysed the inter-regional disparities in economic development in the country.

Manish Sharma and Renu Gupta (1995) made an attempt to identify the inter-regional disparities among the states in India. They are considering economic development synonymous with industrial development. In their analysis they use 1) output indicators 2) Employment indicators and 3)

Infrastructural indicators. From the individual ranks of various indicators, they determined the composite index of development. This study shows that state of Madhya Pradesh belongs to relatively backward state excluding the indicator related to power development. The study also examines inter regional variation in economic development within the state. This study is considering only very limited number of indicators.

S.C. Rai and Shanti Sarup (1995) makes an attempt to identify the degree of backwardness in the eastern states of India. For this study, the states, usually takes as planning units at the country level and have been considered as the unit of analysis. The study utilizes 41 socio- economic development indicators for the year 1988-89. These indicators represent the development activities in various sectors of development like agriculture, industry, health, education, infrastructure and general.

The variables in respect of different indicators measured in different units have been standardised and their standardised values are used to build up the composite index of development. On the basis of this composite index inter-state variations are identified. This study is not considering all the states in India but only Eastern states in India.

A.R. Padoshi (1995), in his study makes an attempt to assess the performance of the 17 states in India in economic growth with respect to their 'Net Domestic Product'. The methodology used in this study is essentially a simple one and involves the use of basic statistical techniques. The comparison of the performance of the states has been made at two points of time- 1975-76 and 1986-87. The status of the states in India is measured by taking the ratio of percentage share of states in Net Domestic product to its share in total population. According to this study, if the share in the NDP to share in the population is unfavourable (Less than one) the percentage of population is likely

to be higher. This approach is not multi-dimensional and used very limited number of indicators.

B. Sudhakar Reddy (1995), in his paper tries to identify the backward state/region in India on the basis of share of sectoral income in the state net domestic product. For this purpose he takes two periods i.e. 1981 and 1989 covering 5th and 6th Five Year Plans. The study takes 1981 as base period because data of the state net Domestic product is available in 1980-81 prices. The study considered a backward state as the one, whose proportions of tertiary sector income in State Net Domestic Product (SNDP) is lower than all India average tertiary sector income. As per this analysis 13 states in the country. i.e., more than 50 per cent of the states in India were backward.

The study also makes use of another criterion to work out inter- state regional imbalances in India. It was 'per worker sectoral state income". According to this criterion, those states were considered as backward whose per worker tertiary sector income in the total income of the state is less than all India average service sector income. Of the 15 states considered (for which data were available) 12 states are backward. This approach lacks precision for measuring inter-regional variations because it takes only sectoral income to identify the inter-regional variations.

Study made by N. Durai Raj and D. Barathan (1995) shows that the regional disparities in economic development are due to the concentration of industries in few districts. That is disparities in development among region are intensified by differences in Industrial growth. By using Lorenz curve and the Gini coefficient, they proved the existence of wide disparities among the districts of Tamil Nadu. They also used the Hirschman-Herfindal (H.H) Index to find out the district-wise concentration of industries in Tamil Nadu.

The study is not multi- dimensional and uses only limited number of indicators of development.

Amartya Sen and Jean Dreze (1996) writing about economic development and social opportunity have dealt with the problem of sharp inter regional differences in India. They remarked that India should learn from within, pointing out the achievements of Kerala in expanding social opportunities to the poorer sections and thereby achieving a faster pace in human development.

K.V. Narayana (1997) through his cross-sectoral analysis made an attempt to identify lagging sectors among the leading sectors in India. In studying the inter-sectoral linkages, the primary emphasis is on the relationship between health status, health care services and other components of socio-economic development such as education, status of women, infrastructure, agriculture and industry. His analysis involves the following steps.

(i) The development process is conceptually desegregated into six sectors: Health care, Education, Status of women, Infrastructure, Agriculture and Industry and sectoral indices are constructed on the basis of P.C.A. (Principal Component Analysis)

(ii) Pooling together the sectoral indices of development the composite index of socio-economic development is estimated at the state level and

(iii) On the basis of inter-state variations in the levels of sectoral and overall development, an attempt is made to establish inter-sectoral linkages in the process of development.

The study covers fifteen major Indian states and the small hilly states, Union territories are excluded from the study for lack of adequate data. He gives more importance to health care sectors and his study is not considering the disparities among the regions in the district.

N.J. Kurian (2000) in his study, assesses disparities in terms of demographic indicators, female literacy, state domestic product and poverty, development and non- development expenditure by state government, shares in

plan outlay, investments, banking activities and infrastructure development. The study also examines various dimensions of interstate disparities in India.

The analysis clearly establishes that there are considerable disparities in socio- economic development across the Indian states. Efforts through the planning process during the first three decades of the Indian Republic has only partially succeeded in reducing regional disparities. The accelerated economic growth since the early 1980s with increased participation by the private sector appears to have aggravated regional disparities. An important aspect of regional disparities in India, which couldn't be covered by this approach, is the significant level of regional disparities, which exist within different states.

Sankaranarayan and Karunakaran [1985] made an attempt to present a regional economic profile of the Kerala state. It attempts to analyse and explain various aspects of the problems of Kerala economy. The study surveys the past, assesses the present and provides guidelines for the future. This study deals with the physical features of Kerala, highlights the main demographic features, analyses income and employment, irrigation, fisheries, forests etc., The study also examines the causes of industrial backwardness and the role of large, small and traditional industries in the economic development of the state. This study surely, deals with the important problems faced by the state in detail. In this study no attempt was made to analyse comprehensively the district level indices of development.

In his study Regional Disparities in Kerala's Economic Development Thomas George (1988) made an attempt to analyse the regional variation in Kerala's economic development. His approach is a multi dimensional and he takes 25 indicators of development. It covers all the districts in the state. The indices are classified in to the following: agriculture, industry, human resource development, transport, health, banking, housing and income. The study is not comprehensive for it will not provide the measure of the extent of inter regional variations.

Samual P.J. (1997) in his study, analysed the economic development of Northern Kerala. The main objectives of the study are (1) to analyse the trend and pattern of economic development and extent of development disparities existing among the districts of Malabar and (2) indicate the development disparities existing among the blocks in districts. In the study no attempt is made to identify the extend of the inter district disparities in the state and the study is also not helpful to identify the backward districts on the basis of some composite index of development.

R. Anand Raj (1997) in his study, made an attempt to gain a better understanding of the process of development in Kerala especially at disaggregate levels. It is an attempt for the identification of the levels of the development of the districts in Kerala, a state which has received appreciation for its remarkable achievements in literacy, life expectancy, fertility level and other social indicators of development with relatively low per capita income. The important objectives of this study were:

a. Identification of the levels of development of districts in Kerala:
b. Computation of indices of development at sectoral as well as at aggregate levels to capture the relative status of the development of the districts.

The analysis was carried out at the sectoral as well as aggregate level. A distinction was made between input indicators and output indicators. The variations in the levels of development were identified by the ranking of the district by three different methods :

1. Ranking (2) indexing and (3) principal component analysis.

Indeed, the study can serve as a bench-mark for monitoring regional development in Kerala. However, the treatment is not comprehensive enough as the study is designed to facilitate inter-district comparisons that to identify the specifications of development status of different districts in Kerala. In this study no attempt was made to identify the extent of regional variations (backwardness) and

the causes of this variations. Moreover, analysis of the process of development was not comprehensive for in the study detailed analysis is not made about natural resources, human resources, physical infrastructure, human infrastructure etc. After all the study does not come up with any policy conclusions.

V.K. Ramachandran (1999) provides a major historical account of Kerala's impressive record in eliminating basic deprivation at an early stage of economic development. The objective of this review is to investigate the sources of Kerala's high profile performance in respect of living standard. The objectives of the study can be classified into (a) Try and draw lessons from Kerala's experience. (b) Basic features of Kerala's economy and society (c) Try to find out Kerala's achievements in health status (d) analyse the role of literacy as a key facilitator of Kerala's demographic achievements (e) Reviews the part played by the major agents of social change in Kerala. By taking certain indicators of development comparisons are made with Karnataka and Tamil Nadu and with all India figures. This is not an attempt to identify the status of the state taking all the indicators of development.

K.P. Kannan [2000], examines Kerala's success in alleviating poverty to an extent that is considerably beyond what is warranted by its per-capita income. He highlights Kerala's achievements by comparing them with the performance of six Asian countries- India, Sri Lanka, Tailand, Malaysia, Indonesia and china. The study also examines the crucial role of education in alleviating poverty in Kerala. In the study, the importance of historical factors of poverty alleviation has been investigated. Study is not an attempt to examine the inter-regional variations in the indicators of development.

Prof. Simon Kuznets (1971) on the basis of historical data put forward 'tertiary sector employment absorption hypothesis' in explaining structural changes and economic development. A study on the changing structure of employment in 48 states in the U.S.A observed a strong shift in employment from primary to the tertiary sector overcoming secondary sector. This shows that,

during the initial period, a decrease in wage and employment in he primary sector may be absorbed mainly in the tertiary sector than in secondary sector.

According to Prof. Schultz (1953) structural changes and organisation are also crucial factors, which determines economic development of the economy. In Agrarian countries, the structural changes means a reduction in the proportion of rural population, engaged in primary sector in comparison to other sectors. In other words, population in agriculture sector have to be reduced and simultaneously other non-agriculture sector will have to be expanded.

Colin Clark (1951) argues that there is close relationship between economic development and occupational structure. Development will take place with a reduction of the proportion of population engaged in primary sector and an increase in that employed in non- agricultural activities. This relationship between economic development and change in the structure of employment is empirically proved. The empirical studies conducted by Perloff (1960) of the U.S.A, Thriwall (1967) and Stilewel (1969) for the U.K. have proved the hypothesis.

Studies show that a few regions have experienced relatively a high rate of growth over time, resulting in a high level of development in comparison to other regions, which have experienced slow rate of growth and a low level of development. Economists often believe that regional imbalances are inherent in the process of development and the tendencies for disparity are stronger in the earlier stages of development. Myrdal (1958) and Kaldor (1960) feel that the basic forces inducing development are disequilibrating in nature. Once the process of divergence is started often it will be further accelerated as a result of new development. Myrdal recognises that the spread effects are stronger when the economy develops and the backwash effects are more powerful than the spread effects in the beginning.

Richard A Easterlin (1958) and Simon Kuznets (1955) have done some very promising inquiry into the long-range growth patterns of a number of countries in an international comparative framework. Kuznets has, for instance, advanced certain quite interesting empirical findings concerning the relation between the levels of development and equality among the region's per capita incomes after having studied the growth experience of the 48 states in the United States between 1870-1950. According to Kuznets' analysis the per capita income among the states is 1) negatively associated with the share of agriculture and related industries in income and labour force. 2) positively associated with the shares of mining, manufacturing and construction in income and labour force and 3) positively but tenuously associated with the shares of all service activities in income and labour force. The most interesting conclusion which Kuznets arrived at is that the faster the change in the industrial structure of a region, the faster is the rate of growth of its per capita income.

One of the important theories of regional disparities, is the "Concentration-cycle hypothesis" developed by Myrdal (1958), Hirschman (1958), Williamson (1965) and Alonso (1968). This hypothesis states that regional disparities diverge initially and converge later. Myrdal calls the forces of divergence as backwash effects and the forces of convergence as spread effects. Myrdal concentrates his attention on the divergent phase. Myrdal hypothesised the cumulative causation. He pointed out that economic and social forces will create cumulative expansion in the favoured multiplier effect will cause increasing return in one region at the expense of surrounding region. Alenso also keeps the same view and holds that the emergence of town and its growth as a feature of divergent phase.

Francois Perroux (1955) in his growth pole theorem made clear the fact that "growth doesn't appear everywhere at the same time, it manifests itself in points of 'poles' of growth with variable intensities, it spreads by different channels and with variable terminal effects for the economy as a whole". Once

the growth pole has appeared, powerful forces make for a spatial concentration of economic growth around the initial starting points. The growth pole is filled by one or more dynamic industries, which attract service and linked industries offering inputs or taking inputs from them and as this relationship grows, so do economies, which serve to attract a wider spectrum of industries.

Social indicators are often referred to as the basic needs for development. The direct provision of such basic needs as health, education, food, water, sanitation and housing affects poverty than per capita GNP strategy. Basic needs lead to a higher level of productivity and income through human development in the form of educated and healthy people. Hicks and Streeten (1979) consider six social indicators for basic needs.

1.	Health	Life expectancy at birth
2.	Education	Literacy signifying primary school involvement as percent of population
3.	Food	Calorie supply per head.
4.	Water supply	Infant mortality and percentage of population with access to potable water.
5.	Sanitation	Infant mortality and percentage of population with access to sanitation.
6.	Housing	None.

Except for calorie supply per head, all other indicators are output indicators. Of these, infant mortality is both the indicator of sanitation and clean drinking water facilities because children are prone to water-born diseases. It is also related to life expectancy at birth and nutritional deficiencies among infants. Thus, the infant mortality rate measures four of the six basic needs.

Problems arise in constructing a composite index based on a rational weighting among economist as to the number and type of items to be included in such an index.

The phenomenon of regional economic inequality during the development process can be viewed from two distinct angles in terms of relative and absolute differentials. Williamsons (1965) has drawn a clear distinction between these differentials. Regional income differentials measured in terms of relatives refer to the per capita income of each region as a percentage of the average national income per capita. An inequality measurement of this sort implies a comparison of regional growth rates and is much more information and useful for the purpose of framing suitable regional development programmes and policies than the absolute differential measure which simply refers to the differences in levels of economic activity between the regions at a particular point of time.

More precisely, regional inequality may be estimated by the coefficient of variation measures, which can fruitfully be employed to determine the extent and regional variations in disparities at widely different levels of development. Williamson introduced the use of coefficient of variation as a measure of regional income dispersion, which was subsequently applied by Jensen (1969), and Harris (1971) to New Zealand and Queens land respectively. The coefficient of variation based on regional per capita income can be used for computing the different measures of inequality.

Tinbergen (1975) has used the 'geographical decile ratio' as a measure of income differences between different countries of the world. He has also applied this ratio to regions within countries but without correcting the price differences and has worked out certain geographical decile ratios for the period of 1960-70 in a number of countries.

Planning Commission appointed a working group in1968 to go into the question of identification of backward areas. Popularly known as Pande Committee. It suggested six criteria for the identification of backward states, viz., total per capita income, per capita income in industry and mining, number

workers in registered factories, per capita annual consumption of electricity, length of surfaced roads in relation to population and railway mileage in relation to population and area. The committee identified 238 districts of India as industrially backward on the basis of six indicators.

Planning commission again setup a committee headed by Sri. B. Sivaraman in 1978 known as National Committee on the Development of backward Areas to examine the backward area programme in depth. It adopted the problem area approach for the identification of backward area and identified six types of problem areas as chronically drought prone, desert, tribal, hill, chronically flood affected and coastal areas affected by salinity. The report refers to the study of Chakravarty Working Group. The group has studied the problem using all the three methods, viz., simple ranking, indices and principal component analysis and has identified 164, 206 & 181 districts as backward districts by these three methods respectively in which 160 districts are common.

Ashok Mitra made a pioneering study of regional development at the district level, based on 1961 census data. Using a large number of indicators, the study divided the 327 districts of the country into 4 levels of development relying on simple ranking method. The study, apart from producing useful data, brought out the relationship between different indicators and the levels of development.

Hemalatha Rao (1977) has examined the inter-regional variations among the states in India, using the techniques of principal component analysis. The study takes four specific sectors, viz; agriculture, industries, banking and education and uses 24 variables to construct the composite index of development.

Review of literature shows that most of the studies were carried out at national level or macro level. So it has been felt that a micro level study at

district level considered to be more important for policy analysis. The present study mainly focuses on this.

OBJECTIVES OF THE STUDY

The objectives of the study are

(1) To identify the position of economic development of Malappuram district in terms of development indicators

(2) To examine the inter-district variations in economic development in Kerala, and

(3) To analyse the inter-district imbalances in the distribution of plan funds in Kerala.

Hypotheses

1. Compared to other districts of Kerala, Malappuram is the most backward district,
2. There exists inter-district variations in Kerala, in terms of development indicators.
3. There exists inter district imbalances in the distribution of plan funds in Kerala and
4. The backwardness is associated with the low level of infrastructure

METHODOLOGY

The study makes an attempt to examine the inter regional variations in Kerala in economic development with respect to the important indicators of development over the period 1971 to 2001. The study takes district as the unit of analysis as it is an attempt to find out the status of districts in Kerala. To start with, the analysis is divided into seven broad sectors like a) Health care, b) Education, c) Status of women, d) Infrastructure e) Agriculture f) Industry and, g) Other development indicators.

For inter-regional comparisons of levels of development three methods are in use. (a) Simple ranking method (b) Indices method and (c) Principal component analysis. In the simple ranking method, each district is ranked as per the values of various indicators and the individual ranks are added to get the total rank for the district. In the indices method an index of development of each district is calculated on the basis of the selected indicators taking the value of each indicators as a percentage of the average value of the corresponding indicator at the state level.

In the principal component analysis method weights are assigned objectively and the index is prepared. The third one is a sophisticated method. But in the present study, indices method is used for determining composite indices of development. Combining the sectoral indices of development, the composite index of socio-economic development is estimated at district level. A total of 46 indicators are selected for the study.

The study is based on secondary data. The secondary data required for the analysis were collected from (1) Economic Review, State Planning Board, Thiruvanathapuram. (2) Statistics for Planning Directorate of Economics and Statistics, Thiruvananthapuram (3) Government of Kerala, Directorate of Industries and Commerce, Action Plan, Malappuram District, 1981, 1991. (4) Census of India. (5) Livestock Census, Department of Animal Husbandry, Kerala. (6)Canara Bank, Annual Action Plan, Malappuram District, 1986. (7) Govt. of Kerala, Status Paper, 1980, Malappuram District. (8) A Guide for preparing the District Perspective Plan for Agriculture and Allied Sectors, 1999, State Planning Board, Thiruvananthapuram and other Published Books, Journals, etc.

The tools used in this study are simple and involve the use of elementary statistical techniques. The study will be making use of simple averages, ratios, standard deviations, coefficient of variations etc. This will include Hauser's method of measuring Index of relative growth (IRG), Karl

Pearson's correlation coefficient, standard deviation and Williamson's weighted coefficient of variation.

Williamson introduced the use of coefficient of variation as a measure of dispersion which was later applied by Haris C.P. (1971) to Queens Land. The index is weighted by the region's share in country's population

The formula used in

$$Vc = \frac{\sqrt{\sum_{i}^{n} (y_i - \bar{y})^2 \frac{n_i}{n}}}{\bar{y}}$$

Where Vc = weighted coefficient of variation

Y = Index value for the district

$\bar{y}$ = Index value of the state

ni = population of the district

n = state population

Limitations of the study

This study is based on secondary data. The restrictions imposed by the non-availability of relevant information in some years forced the study to confine its analysis to a limited period emergence of new districts like Kasargod and Vynad during 1980's created the problem of getting suitable data. Selection of indicators used in this analysis is based on the availability of the data.

Scheme of the study

For the purpose of the analysis the study is divided into six chapters. The first chapter introduces the topic and explains the objectives, hypotheses and methodology of the study. It also contains the review of literature.

Second chapter deals with the profile of Malapuram district.

Chapter three explains the trend and pattern of economic development of Malapuram district in terms of certain indicators of development relating to income and employment, population, agriculture, industry and service sector.

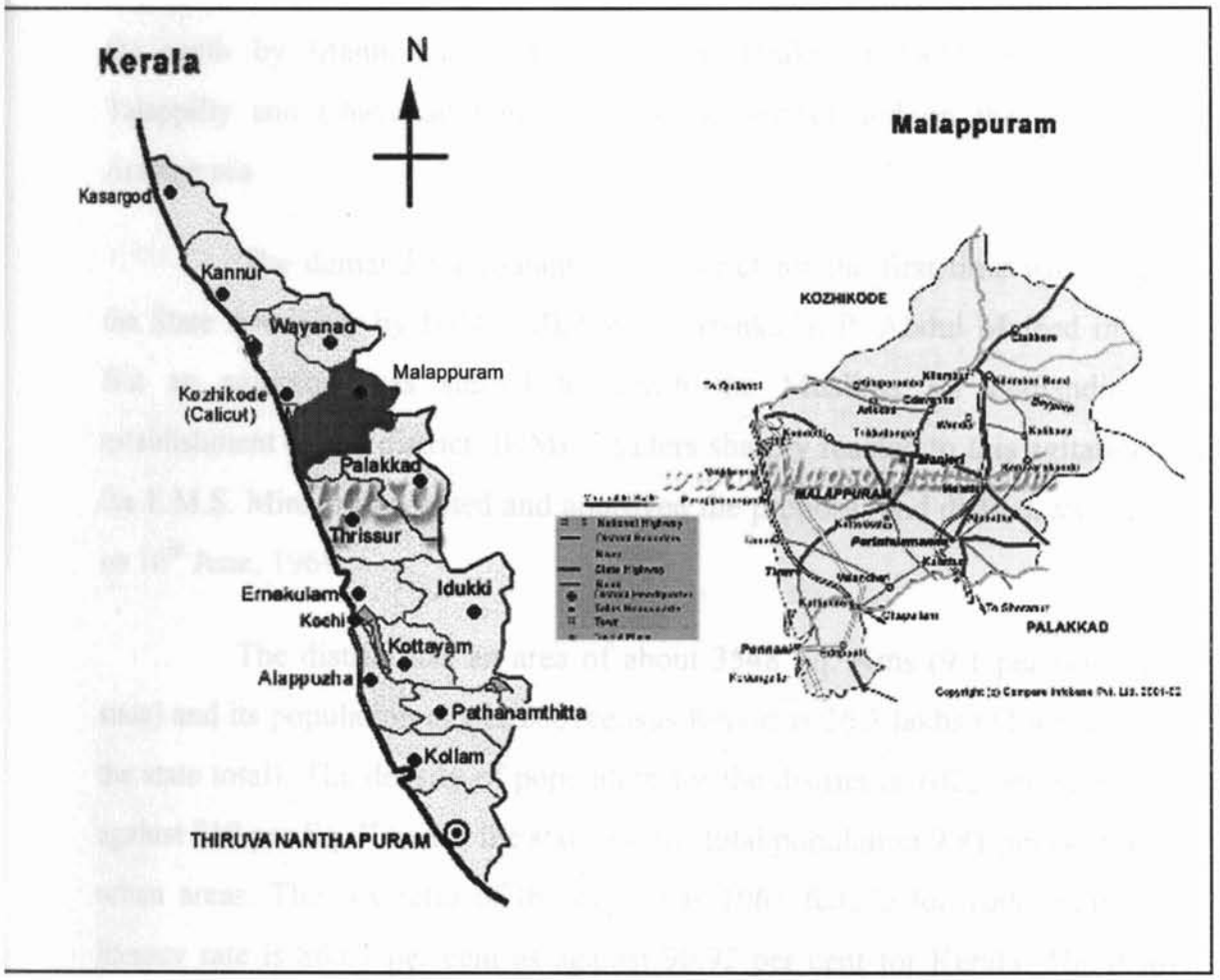
Chapter four examines the inter district variations in economic development in Kerala in terms of selected indicators of development and it also examines the position of Malapuram district among the district in Kerala.

Fifth chapter analyses the inter district differences in the distribution of plan funds in Kerala.

Chapter six presents the conclusions of the study.

Chapter 2

PROFILE OF MALAPPURAM DISTRICT


Kerala
N
Kasargod
Kannur
Wayanad
Malappuram
Kozhikode
(Calicut)
Palakkad
Thrissur
Ernakulam
Idukki
Kochi
Kottayam
Alappuzha
Pathanamthitta
Kollam
THIRUVANANTHAPURAM
Malappuram
KOZHIKODE
MALAPPURAM
PALAKKAD

CHAPTER 2

PROFILE OF MALAPPURAM DISTRICT

Malappuram District was formed in 1969 by taking backward taluks from Palakkad and Kozhikode districts. Malappuram is bounded on the north by Kozhikode taluk of Kozhikode district and Vythiri taluk of Wynad district, on the east by Gudallur and Oottacamand taluks of Nilgiris district of Tamil Nadu, on the south by Mannarkad and Ottappalam taluks of Palakkad district and Talappilly and Chavakad taluks of Trichur district and on the west by the Arabian sea.

The demand for Malappuram district for the first time was raised in the State Assembly by IUML MLA from Mankada. P. Abdul Majeed in 1960. But an agitation was started to thrash the Muslims for demanding the establishment of the district. IUML Leaders sharply reacted to this agitation and the E.M.S. Ministry accepted and approved the proposal and district was formed on 16th June, 1969.

The district has an area of about 3548 Sq. Kms (9.1 per cent of the state) and its population as per 2001census Report is 36.3 lakhs (11.4 per cent of the state total). The density of population for the district is 1022 per Sq.Kms. as against 819 per Sq. Kms for the state. Of the total population 9.81 per cent live in urban areas. The sex ratio of the district is 1063 female for 1000 males. The literacy rate is 86.61 per cent as against 90.92 per cent for Kerala. The district population was divided into Muslims, Hindus and Christians in the proportion of 64:33:3 respectively. The district was dominated by Muslim population. Kozhikode was a major trading centre for Arabs in the Middle Ages and Malappuram hence contains some of the oldest Indian Muslims in Kerala. These people are known as Mappilas and are concentrated in Malappuram, Kozhikode and parts of Trichur and Palakkad districts. During British era Malappuram was

minuscule part of the Malabar district of Madras Province and this area was famous for Mappila movement for independence against British rule.

Administrative Units

The district is divided into six taluks, Ernadu, Nilambur, Tirur, Perinthalmanna, Tirurangadi and Ponnani. There are 14 development blocks in the district. They are Areekkode, Kondotty, Kuttippuram, Malappuram, Mankada, Perinthalmanna, Ponnani, Perumpadappu, Tanur, Tirur, Tirurangadi, Vangara, Wandoor and Nilambur. The district is further divided into 100 Panchayaths, 5 Municipalities and 122 Revenue Villages.

Brief History of the District

The places in the district formed part of the Chera Empire during the Sangam period. After that the history of the district is interwoven with the history Zamorin's (Samuthiri's) rule. Samuthiri was originally from Nediyiruppu of Eranadu taluk of Malappuram district before shifting his capital to Kozhikode. By 1400 A.D. Samuthiri acquired power over the entire district.

With the arrival of Vasco Da Gama in 1498, the Portuguese period starts in Kerala. By the middle of 17th century, the Dutch had monopoly of the foreign trade in Kerala coast except some small English factories at Ponnani and Calicut. The arrival of Captain Keeling at Calicut in 1650 and the conclusion of treaty with the Samuthiri paved the way for the British supremacy in the region.

Hyderali invaded Malabar in 1766. He has to face stiff opposition from the local Nairs. With head quarters at Manjeri his troops spread all over the district. In 1768-73 Haider was busy with his campaigns against the Mahrattas, but at the end of 1773 he descended again to Malabar. In 1778, a rebellion broke out against the rule of Hyder. The English East India Company encouraged this rebellion. Later Hyderali sent his son Tippu Sultan to establish his power in Malabar. But Tippu couldn't continue for long in Malabar as his father passed

away and he had to assume his father's throne. In 1788 Tippu again descended in Kerala with a large army and without any strain he was able to establish his power in Malabar, Feroke as his capital.

But the signing of the treaty on Srirangapattanam in 1792 resulted in the collapse of the Mysore throne and a large part of Malabar which were under the authority of Mysoreans were ceded to the British. The British rulers again made an arrangement to collect the revenue through Samuthiri, who was also given with certain administrative powers. However, the rebellion leaded by Manjeri Athan Gurukkal again resulted in non-payment of revenues by Zamorin. By taking advantage of this opportunity British rulers taken the control of the districts ruled by Zamorin. Later, the British Collectors ruled Malabar which includes the present Malappuram District. During the reign of the British the peace of the region was often disturbed due to Mappila struggle against British suppression. Several encounters took place between the Mappila fighters and the British troops. These struggles, known as Mappila Rebllion of 1921, were spread to Tirurangadi, Malappuram, Pookkottur, Perintalmanna, Pandikkad, Tirur, etc.

Of the major political set ups in Malabar the most important was the emergence of the Kerala Muslim League as a political party, in the district under the leadership of Syed Abu Rahiman Bafaki Thangal, K.M. Seethi Sahib, Panakkad Pookkoya Thangal, Ibrahim Sulaiman Sait and C.H. Mohammed Koya. Now Malappuram is well known for communal harmony.

Topography

Literally "Malappuram" means hilly area. The word Malappuram is the integration of two words – Mala (hill) and Puram (place). As the very name suggests, Malappuram is hilly terraced tract. A large number of streams that passes through these hills reach the beautiful sea coast. In many places these streams are linked with back waters which facilitate a network of inland

waterways. The midland region is fertile while the hilly area has dense forests and extensive teak plantations.

a. Mountains

The north-eastern portion of Ernad and Nilambur Taluks have mountains and hills. The important hills of the district are Vayutmala (2339.73mts.), Vellarimala (2335.58mts.), Chakkumala hills (600.46mts.), Urothmala (477.6mts.) and Pandallur hills (610.2mts.).

b. Rivers

The important rivers of the district are Chaliyar, Kadalundi, Purapparamba, Tirur river, Bharathapuzha and Thoothapuzha.

Chaliyar river originates from Elembileri hills of Wynad taluk. Its important tributaries are Cherupuzha, Iringapuzha, Kurumbanpuzha, Kanhirapuzha, Karimpuzha, Punnapuzha, Vadpurampuzha, etc. The main river passes through Cholamala Estate, Kanthapara, Kurumbanmala, Edakkara, Chungathara, Nilambur, Mampad, Edavanna, Areecode, Urganttiri and Kizhuparamba of Malappuram District before it joins with the sea at Beypore. This river has a total length of about 168kms.

Kadalundi river, also known as Oruvampurampuzha, starts from the Silent Valley reserve forests. Olipuzha and Velliarpuzha are its important tributaries. The river passes through Karuvarkundu, Pandikkad, Vettikatiri, Pandalur, Anakkayam, Malappuram, Urakam, Edappatta, Melattur, Keezhattur, Koottilangadi, Kodur, Othukkungal, Parappur, Vengara, Thennala, Thiruvangadi, Koduvayoor, Moonniyoor, Parappanangadi, Ariyallur and Thenhippalam villages before it falls into the sea at Kadalundi.

Purapparamba, a small river of 8Kms., originates from the tail end of Purapparamba cut. It flows in the western direction and crosses the Madras-Mangalore railway line between Tanur and Parappanangadi station.

Tirur river, starting from the Athavanad village of Tirur taluk passes through Ananthavur, Thirunavaya, Tahalakkad, Valavannur, Cheriyamundam, Tirur, Valleri and Purathur villages. It has a length of 48 Kms.

Bharathapuzha or Neelanadi has its origin in the Anamalai hills. After flowing through Coimbatore district it enters the Palakkad district of Kerala. During its way, it forms the boundary between Palakkad and Trichur districts. It then enters in Malappuram district. It enters into the sea at Ponnani. It is the longest river in the state with a total length of 251Kms.

The Thuthapuzha originating from Mannarkkad Taluk lies as the boundary between Perintalmanna and Ottappalam taluks. The villages which touch the river in the district are Aliparamba, Anamangad, Elamkulam Pulamanthole, Moorkkanad, Edayoor and Irimbiliyam. It joins the Bharathapuzha at the tri-junction of Irimbiliyam, Parudur and Anakkara villages.

c. Sea Coast

The coastline of the district constitutes about 11.86 per cent of the total state coastline. The sea coast of the district extends to 70 Kms. with a minor port at Ponnani. The port is tidal. Since it is very shallow, most of the Vessels, have to be anchored out in the sea. There are large number of fishing centres on this coastline.

d. Lakes

There are no major lakes in the district. The Veliancode lake is situated 5Kms south-east of Ponnani and it is like a river and it extends about 12Kms.

Climate

The climate of the district is the same as that of the state. April is the hottest month and rainfall is heavy particularly in the month of June and July. The annual rainfall in the district has been around 300 mm and maximum temperature of the district is about 37°C.

Forests

We can see both deciduous forests and evergreen forests in the district. The valuable trees found in district are teak, rose-wood maruthu, etc., forests are located in Vazhikkadavu, Edakkara, Moothedam Pothukkallu, Karulai, Kalikavu, Karuvarkundu, Nilambur, Mampad, Urungattiri, Perakamanna, areas of Nilambur Taluk in large expanse and in Mankada, Vettathur, Kariavattum and Arakkuparamba of Perinthalmanna Taluk.

Soil

The soil of the district is classified as sandy, laterite and hilly or forests. In the costal belt, the soil from east to west changes from laterite to lateric loam and gradually into sandy loam and then into pure sand. The hilly soil is characterised by a layer of organic matter. The hilly slopes as well as the coastal belt usually undergo fresh accumulation of sand and silt from interior portion due to the transformation of the soil by erosion and these laterite soil of low natural fertility are deficient of plant nutrients and hence requires more manure.

Geology and Economic Minerals

Archean gneiss is the most common geological formation of this district. The major economic mineral is quarts magnetite. The deposits of this mineral are found at Porur and Veettikuthu hills. Quarts-gneisses are common in Nilambur, Edavanna and Pandikkad areas. Garneti ferrous quartz is seen near Manjeri, Kondotty and Pantallur. Charnokite rocks are found near Nilambur,

Mampad and Edavanna areas. Dykes consisting of plagioclase filspar and pyroxene in typical laterite texture are seen forming ridges near Manjeri. Iron ores of good quality is reported to occur in Nilambur and Ernadu Taluks. Chinaclay which is the chief raw material for porcelain is seen in plenty in Perintalmanna and Ponnani Taluks and also in Kadalundi river Ball clay deposits are found at Thekkummuri near Changarakulam. Lime shell deposits are found in Edakkara,. The beach sand contain monozite, ilmenite, etc.

Demographic Features

According to 2001 census the population of the district is 3629640. that is 11.4. percent of the total population of the state. Of which the urban population accounted for 9.81 percent. The density of population is 1022 per Sq. Km. As against 819 per Sq.Kms. for the state. Table 2.1 illustrates the important demographic features of the district.

Table 2.1
Demographic Features – 2001

District/State	Population	Decadal growth rate 1991 to 2001 (per cent)	Sex ratio number of females per 1000 males	Density per sq Km.	Literacy rate
Malappuram	3629640	17.22	1063	1022	88.61
Kerala	31838619	9.42	1058	819	90.92

Source :

1. Economic Review 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram.
2. Census of India 2001 (provisional)

Table 2.1 shows that the literacy rate of the district is just below the state level literacy rate. The sex ratio is one of the highest in the state.

A study of district-wise distribution of rural urban population shows that Malappuram district has got 12th place as far as urban population is concerned. It is illustrated it is illustrated in the table 2.2.

Table 2.2

Ranking of Districts by percentage of Urban population – 2001

District	Percentage of urban population	Rank
Kannur	50.46	1
Ernakulam	47.65	2
Kozhikode	38.25	3
Thiruvananthapuram	33.78	4
Alappuzha	29.36	5
Thrissur	28.21	6
Kasargod	19.42	7
Kollam	18.03	8
Kottayam	15.35	9
Palakkad	13.62	10
Pathanamthitta	10.03	11
Malappuram	9.81	12
Idukki	5.07	13
Wayanad	3.76	14

Source : Census of India 2001 (Provisional) p.p. 107

Districts have been arranged according to its rank in respect of urban population in 2001. First rank goes to Kannur with 50.46 per cent and the lowest rank goes to Wayanad district with 3.76 per cent. The rank of Malappuram is 12th with 9.81 per cent of urban population.

In Kerala Malayalam speaking people constitute 99.66 per cent of total population, Tamil speaking 0.23 per cent, Telugu 0.05 per cent, Kannada

0.02 and others 0.04 per cent. As per 1991 census report mean age at marriage of women in Malappuram district is 18.77 as against 20.98 for the state as a whole.

Income and Employment

The income of the district at current prices was estimated at Rs.487201 lakhs in 1999-2000. It constitutes about 7.7 per cent of income. The per capita income of the district at current prices is Rs.13782, which is the lowest for any district in the state. District-wise distribution of net state domestic product and per capita income for the year 1999-2000 (at current prices) is illustrated table 2.3.

Table 2.3
District-wise distribution of net state domestic product and per capita income at current prices (1999-2000)

District	Net Domestic product in Rs. Lakhs.	Per capita income Rs.	Per capita income rank
Thiruvananthapuram	658370	20484	7
Kollam	473926	18426	8
Pathanamthitta	231226	17980	11
Alappuzha	493121	21916	3
Kottayam	421896	21871	4
Idukki	273876	21297	6
Ernakulam	740098	23020	2
Thrissur	617776	21362	5
Palakkad	463761	18031	10
Malappuram	487201	13782	14
Kozhikode	523776	18105	9
Wayanad	219409	34123	1
Kannur	443928	17260	12
KSD	207311	16121	13
Kerala	6255675	19461	

Source : Economic Review 2000, State Planning Board, Govt. of Kerala, Thiruvananthapuram,.

The contributions of the primary, secondary and territory sectors to district domestic product in 1999-2000 were the order of 31.4 per cent, 16.2 per cent and 52.4 per cent respectively as against 28.7 per cent, 20.6 per cent and 50.6 per cent respectively for the state.

The labour force of the district as per 1991 census was 671486. Out of which 13.1 per cent were cultivators, 34 per cent agricultural labourers,. 1.8 per cent were household industry workers and 51.1 per cent were other workers. Following table 2.4 shows the distribution of working population in Malappuram district.

Table 2.4

Distribution of working population

State/District	Total main workers	Cultivators	Agricultural Labourers	Household industry workers	Other workers
Kerala (% in brackets)	8301087 (100)	1015983 (12.2)	2120452 (25.6)	214146 (2.6)	4950506 (59.6)
Malappuram (% in brackets)	671486 (100)	88291 (13.1)	227708 (34)	12184 (1.8)	343303 (51.1)

Source: Computed from A Guide For Preparing The District Prospective Plan For Agriculture and Allied Sectors, Nov. 1999, State Planning Board, Govt. of Kerala, Thiruvananthapuram, p.p.58.

Occupational distribution of the population in the district shows that agriculture predominates in the district economy. The total number of unemployed job seekers in the live register of Employment Exchange in the district as on 31.10.2000 was 245088, of which women job seekers accounted for more than 50 percent of total job seekers. It is interesting to note that out of total job seekers in the district 239125 were professional and technical work seekers. It is about 97.6 per cent of the total job seekers.

The picture of work participation rates shows that Malappuram district records the lowest work participation rates among the districts of Kerala. According to 1991 census the work participation rate for Malappuram is 24.89

per cent as against 32.05 per cent for Kerala. the districts are arranged in the descending order of work participation rates. It is illustrated in table 2.5.

Table 2.5
Work participation rates by districts in Kerala – 1991

District	Work participation rate (%)	Rank
Idukki	41.57	1
Wayanad	38.82	2
Palakkad	36.94	3
Alappuzha	34.85	4
Ernakulam	34.51	5
Thrissur	33.61	6
Kasargod	33.25	7
Kottayam	32.68	8
Thiruvananthapuram	32.63	9
Kerala	32.05	
Kollam	31.89	10
Pathanamthitta	30.05	11
Kannur	28.62	12
Kozhikode	26.47	13
Malappuram	24.89	14

Source : Census of India 1991, Series – 10, Kerala, paper 2, p.p.81.

The table 2.5 shows that the lowest rank is for Malappuram Dist. And the first rank is for Idukki.

Agriculture

Agriculture is the largest and the most important sector of district economy of Malappuram, and about 70 per cent of population are depending directly or indirectly on agriculture for their livelihood. Nearly 50 per cent of the

working population are engaged either as cultivators or as agricultural labourers. The total cropped area of the district in 1995-96 was 267150 hectares forming 8.7 per cent of total cropped area in the state. The main crops raised in the district are paddy, coconut, tapioca, arecanut, cashewnut, pepper, ginger, pulses, banana and rubber.

Land use pattern

The district has a total geographical area of 363230 hectares which is 9.3 per cent of the total geographical area in the state. The table 2.6 gives the detailed information about the land use pattern in the district for the year 1995-96.

Table 2.6

Land use pattern in Malappuram District 1995-96 (area in hect)

	Classification of land	Malappuram (% to state total in brackets)	Kerala
1.	Total Geographical Area	363230 (9.3)	3885497
2.	Forest	103417 (9.5)	1081509
3.	Land put to non agricultural use	25314 (8)	313131
4.	Barren an uncultivable land	4218 (9.8)	43154
5.	Permanent pastures and grazing land	89 (7.6)	1170
6.	Land under miscellaneous tree crops not included in net area sown	1657 (6.1)	26852
7.	Cultivable waste	9462 (12.7)	74382
8.	Fallow land other than current fallow	3717 (12.7)	29143
9.	Current fallow	8153 (15.8)	51314
10.	Net area sown	207203 (9.1)	2264842
11.	Area sown more than once	59947 (7.4)	802383
12.	Total crop area	267150 (8.7)	3067225

Source: Statistics Since Independence, 1998, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram, p.p. 56.

The cropping pattern in the district is highly diversified between food crops and commercial crops. Area under principal crops in the district is illustrated in the table 2.7.

Table 2.7
Area under principal crops 1996-97 (in hectares)

Crops	Malappuram	Kerala
Rice	31098	430826
Cereals & Millets	31099	438998
Pulses	493	18299
Pepper	8193	182887
Arecanut	14883	76066
Tamarind	2524	18429
Jack	7443	86365
Banana	5024	28855
Pappaya	1942	14028
Tapioca	8226	120387
Coconut	103924	902104
Rubber	26305	448988
Cashewnut	10761	97089

Source: A Guide For Preparing The District Perspective Plan For Agriculture and Allied Sectors, November 1999,Agriculture Division, State Planning Board, Govt. of Kerala, Thiruvananthapuram, p.p.69, 70, 71.

Irrigation

The most common sources of irrigation of this district are tanks, wells and canals. There is no major irrigation project in this district. Lift irrigation facilities are also provided in which those at Thirunavaya and Chamravattam are important.

Animal Husbandry

Thanks to the predominance of agriculture, animal husbandry as a subsidiary occupation seems to have gained ground throughout the district. According to livestock census 1996, cattle population in the district was about 244225 and it is 7.3 per cent of the state total and poultry stock was about 2626343 and it is 9.7 per cent of the state total. The district is lagging behind in developing the diary potential. The major difficulty is the inadequate processing and marketing facilities. There are two chilling plants one at Nilamburand the other at Muppini with a capacity of 6000 litres and 2000 litres respectively.

Per capital per day availability of milk in Malappuram district is about 106 ml. as against 199 ml for the state.

Fisheries

The most of the people living in the costal areas depend on fishing as their livelihood. The district has a costal line of 70 km and the three important fishing centres are Ponnani, Tanur and Parappanangadi. The other fishing centres are Palapetty, Veliyancode, Puthuponnani, Koottayi, Paravanna and Puthiyakadappuram. The important types of fishes found in the district are Chemba, Soil fish, Oil Sardina, Silverbelly, Shark, Cat fish, Mackerel, Skate, Seafish etc. Mechanised and non-mechanised boats are used for fishing. There is no fishing harbour in the district. Marine development blocks are functioning at Ponnani, Tanur and Parappanangadi.

Industry

Malappuram is one of the most industrially backward districts in the State. The yearly contributions that industries make to net domestic product of the district is as low as 6.8 per cent. Ranking of districts on the basis of contribution of manufacture to the net domestic product of the districts in Kerala and per capita contribution by manufacture is illustrated in the table 2.8.

Table 2.8

District-wise percentage contribution of manufacture and per capita contribution by manufacture – 1999-2000

District	Per capita contribution of manufacture to district net domestic product	Rank	Per capita contribution by manufacture	Rank
Thiruvananthapuram	9.3	9	1909	7
Kollam	15.5	3	2859	4
Pathanamthitta	5.6	12	1013	11
Alappuzha	16	2	3507	1
Kottayam	7.7	10	1686	9
Idukki	3.1	13	671	13
Ernakulam	12	6	2784	5
Thrissur	14.5	4	3092	3
Palakkad	10.6	7	1904	8
Malappuram	6.8	11	950	12
Kozhikode	9.4	8	1643	10
Wynad	1.8	14	623	14
Kannur	12.7	5	2199	6
Kasargod	19	1	3094	2
Kerala	10.8		2112	

Source : Computed from Economic Review 2000, State Planning Board, Govt. of Kerala, Thiruvananthapuram, p.p.S13

Table 2.8 shows that Malappuram is one of the industrially backward districts in Kerala. Contribution of manufacture to district net domestic product reveals that the rank of Malappuram is 11^{th} and in the case of per capita contribution by manufacture, it is 12^{th}.

The total number of working factories in Malappuram district as on 31^{st} December 1999 was 987 (5 per cent of the state) and the persons employed in these factories were 10667 (2 per cent of the state). The picture of factory

workers per lakh of population is also shows that Malappuram is backward. It is illustrated ion the table 2.9.

Table 2.9
District wise number of registered working factories and employment in Kerala as on 31st December 1999

District	No. of factories	Persons Employed	Factory workers per lakh of population	Rank
Thiruvananthapuram (TPM)	917	29799	924	8
Kollam (KLM)	1817	145699	5527	1
Pathanamthitta (PTA)	473	10945	841	10
Alappuzha (ALP)	1167	25413	1160	4
Kottayam (KTM)	1289	18410	912	9
Idukki (IDK)	314	8102	687	11
Ernakulam (EKM)	2858	72325	2345	2
Thrissur (TSR)	2566	43382	1448	3
Palakkad (PKD)	2004	24823	952	7
Malappuram (MPM)	987	10667	315	14
Kozhikode (KKD)	1800	29870	1041	5
Wynad (WYD)	176	2725	370	13
Kannur (KNR)	1661	24253	984	6
Kasargod (KSD)	311	4482	382	12
Kerala	18340	450895	1415	

Source: Computed from Economic Review, 2000, State Planning Board, Govt. of Kerala, Thiruvananthapuram, p.p.S94.

There are 11334 registered small scale units in the district as on 31st March 2001 constituting 4.7 per cent of small scale units in the state and they provide employment to 45114 persons as against 1114495 for the state. The employment per unit of small scale industry in the district is 3.9 as against 21.5 for the state. Details of small scale industrial units registered in the district are given in the table 2.10.

Table 2.10

Details of small scale industrial units as on 31st March 2001

District/ State	SC/ST	Women	Others	Total	Total investment in Rs. Lakhs	Employment provided
MPM	829	1626	8879	11334	17615.75	45114
Kerala	10195	41668	188033	239896	347061.48	1114495

Source: Computed from Economic Review, 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram, p.p.S98.

Transport

The district has 1759kms. of roads maintained by P.W.D. as on 01.04.2001 as against 21508.161kms. of road in the state as a whole. The state highway from Kozhikode to Gudallur passes through Kondotty, Nediyiruppu, Manjeri, Thrikkalangode, Edavanna, Mampad, Nilambur, Chungathara, Edakkara and Vazhikkadavu panchayaths of Ernadu and Nilambur Taluks. The Calicut-Madras road touches Malappuram, Angadippuram, Perinthalmanna etc. Thrissur-Calicut road, which forms the part of National Highway, passes through Thirurangadi, Thenhippalam, Kuttippuram, Edappal, etc. The details of P.W.D. roads as on 1st April 2001 are furnished in the table 2.11.

Table 2.11

Details of PWD roads in Malappuram district as on 01.04.2001 (in kms)

District/State	State highways	Major district roads	Other district roads	Village roads	Total
MPM	208.867 (5.3)	1220.930 (10.6)	198.143 (3.7)	131.840 (14.5)	1759.780 (8)
Kerala	3890.27 (100)	11469.519 (100)	5243.776 (100)	904.596 (100)	21508.161 (100)

Source: Taken from Economic Review, 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

The state highway constituted only 5.3 per cent of total length of state highway in Kerala. The total PWD roads formed only 8 per cent of PWD roads in the state. The number of vehicles registered as on 31.03.2000 was 138434 as

against 1910237 for the state. That is vehicles in the district constitute 7.2 per cent of the total vehicles in the state. The details of registered vehicles in the district are given in the table 2.12.

Table 2.12

Details of vehicles as on 31.03.2000

District/ State	Four wheelers & above	Three wheelers including tempo	Stage carriage	Contract carriage/ Omni buses	Cars	Taxis	Jeeps	Autorickshas	Scooters/ Motor cycles	Tractors	Tillers	Tailors	Others	Total
MPM	11690	4140	2322	3845	16431	11463	7737	29150	48899	491	493	2	1766	138434
Kerala	135058	28385	23537	35351	257796	71581	67497	227895	1020797	7782	4763	1506	27107	1910237

Source : Economic Review, 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram p.p.S146.

The total length of railways in this district is about 91kms. Kuttippuram, Tirur, Tanur and Parappanangadi are the important fish exporting stations. Nilambur-Shornur line helps for transporting timber and other forest produces from Nilambur region to other parts of the country.

Communications

The population served by one post office is highest for Malappuram district. The area served by one post office in Malappuram district is one of the highest in the state. The details of post offices in the district are given in the table 2.13.

Table 2.13

Details of area and population served by one post office during 1999-2000

District/State	Number of post offices	Area served by one post office (Sq. Kms.)	Population served by one post office.
MPM	432	8.2	8085
Kerala	5056	7.69	6492

Source : Economic Review, 2000, State, Planning Board, Govt. of Kerala Thiruvananthapuram.

District-wise details of Telephone net work during 1999-2000 shows that the facilities of telephone is inadequate. The number of telephone per 1000 population is 25 for Malappuram district as against 53 for the state as a whole. The number of telephone per Sq. Kms. is 26 for the district while it is 44 for Kerala.

The population served by each bank branch is higher in Malappuram district. Malappuram has one bank office for every 13809 people as against 10175 for the state as a whole. The credit deposit ratio is below 30 percent in Malappuram district while it nearly 50 percent for the state.

Chapter 3

ECONOMIC DEVELOPMENT OF MALAPPURAM DISTRICT

CHAPTER 3
ECONOMIC DEVELOPMENT OF MALAPPURAM DISTRICT

This chapter analyses the trend and pattern of economic development of Malappuram district since its formation in 1969. Study also makes an attempt to compare the development of the district with other districts in the state. The analysis is based on certain indicators of development relating to income and employment, population, agriculture and allied activities, industry and service sector.

Income and Employment

The backward areas are symbolically represented by their poverty or to be more precise, by very low per capita income. As incomes are very low in the under developed areas, a rise in them relative to population is taken as an appropriate index and objective of development. Here we use two approaches to represent growth. One relates to the increase in the total income of the area in relation to population (Index of relative Economic Growth) the other and the most widely used index of development is a change in per capita income of the district in relation to the per capita income of the state or per capita income relatives. This will be followed by a discussion of the total income by industrial origin. In doing so trend will be described and analysed.

Index of Relative Economic Growth

This part examines how the contribution of each district in the state towards economic growth compared with its contribution to population. A very simple method advocated by Hauser and later used by Dr. Radha Devi (1995) relating to population and economic growth will be used in this study. Here an attempt is made to assess the performance of the 14 districts in Kerala in economic growth respect to their 'Net District Domestic Product' (NDDP). In

this method the Index of Relative Growth (IRG) is computed. It is the ratio which is expected to show in percentage terms whether a district's contribution to Net State Domestic Products (NSDP) is higher or lower in comparison with its contribution to state population. A ratio of one hundred will be interpreted as equal contribution by the NDDP and population whereas a ratio above one hundred will be interpreted as higher contribution to the district domestic product than its contribution to population and vice versa.

The formula used is

$$IRG = \left(\frac{y_i}{Y} / \frac{p_i}{P} \right) \times 100 - 100$$

Where IRG - Index of Relative Growth

y_i - NDDP of i^{th} district.

Y - NSDP

p_i - Population of i^{th} district.

P - State Population.

IRG computed for the districts in Kerala for 1981, 1991and 2001 given in the table 3.1.

Table 3.1

Index of relative economic growth for the districts in Kerala

District	1981		1991		2001	
	IRG	Rank	IRG	Rank	IRG	Rank
TPM	-1.96	8	-0.39	9	+3.35	7
KLM	+31.51	4	+1.81	6	-7.6	11
PTA	-	-	+7.5	4	-4.3	8
ALP	+10.4	6	-0.15	8	+19.5	4
KTM	-3.15	10	+4.77	5	+9.95	5
IDK	+32.36	3	+36.6	2	+23.9	2
EKM	+33.9	2	+48.97	1	+21.2	3
TSR	-2.92	9	-0.11	7	+5.9	6
PKD	-13.45	11	-18.55	13	-9.9	12
MPM	-31.14	12	-42.48	14	-31.75	14
KKD	+23.15	5	-2.2	10	-7.4	10
WYD	+39.9	1	+12.2	3	+42.11	1
KNR	+4.2	7	-6.33	11	-6.33	9
KSD	-	-	-10.3	12	-12.69	13
KERALA	0		0		0	

Source : computed from Statistics for Planning 1988, 1991, 2001 DES, Thiruvananthapuram

Idukki, Ernakulam and Wayanad were the districts having positive values for IRG in all the three periods under consideration. Malappuram and Palakkad remained minus districts during 1981, 1991 and 2001.

Thiruvananthapuram has graduated from a minus district in 1981 and 1991 to a plus district in 2001. Thrissur also changed from a minus district to a plus one during the same period. Kollam was a positive district in 1981 and 1991 and it has changed in to a minus district in 2001.

The IRG in 2001 shows that all the districts in Malabar except Wayanad are minus districts. Among the districts of Travancore-Cochin all except Kollam and Pathanamthitta are plus districts in 2001.

In this exercise it is found that only 7 out of 14 districts contributed toward NSDP than to state population. The lower value of IRG is for Malappuram (i.e. -31.75 in 2001) whereas the highest value for Wayanad (i.e., +42.11 in 2001). If we are ranking the districts in Kerala on the descending order of IRG it is clear that Malappuram has recorded the last rank during 1981, 1991 and 2001.

Per Capita Income Relatives

Per capita income relatives taken as a ratio of per capita income of the district to the average income of the state also reveals the existence of regional imbalances in the state. The ranking of the districts on the basis of per capita income shows that the districts in Malabar are backward and their per capita income is below the state average with an exemption of Wayanad. It is illustrated in the table 3.2

Table 3.2

Ranking of the districts on the basis of per capita income relatives

District	1980-81			1990-91			1999-2000		
	PCI	PCI Relatives	Rank	PCI	PCI Relatives	Rank	PCI	PCI Relatives	Rank
TPM	1489	0.98	6	3799	0.99	6	20484	1.05	7
KLM	1541	1.02	5	3756	0.977	9	18426	0.95	8
PTA	-	-	-	3881	1.01	4	17980	0.92	11
ALP	1316	0.87	9	3604	0.94	12	21916	1.13	3
KTM	1458	0.96	8	3798	0.988	7	21871	1.12	4
IDK	2001	1.32	2	5001	1.3	2	21297	1.09	6
EKM	2023	1.34	1	5612	1.46	1	23020	1.18	2
TSR	1467	0.97	7	3772	0.981	8	21362	1.1	5
PKD	1311	0.866	10	3195	0.83	13	18031	0.926	10
MPM	1049	0.69	11	2492	0.65	14	13782	0.71	14
KKD	1592	1.05	3	3835	0.99	5	18105	0.93	9
WYD	-	-	-	4563	1.19	3	34123	1.75	1
KNR	1576	1.04	4	3674	0.956	11	17260	0.83	12
KSD	-	-	-	3702	0.96	10	16121	0.828	13
KERALA	1513	1		3843	1		19461	1	

Source: Computed from Economic Review 1981, 1991, 2000, State Planning Board, Thiruvananthapuram.

The table 3.2 shows that for all the districts in Malabar except for Wayanad the values of income relatives are less than one. But for most of the districts in Travancore-Cochin area it is greater than one.

The per capita income relatives of Thiruvananthapuram are less than one in 1980-81 and 1990-91. But it became greater than one in 1999-2000. For all the year under consideration the per capita income relatives are greater than one for Idukki, Ernakulam and Wayanad districts. But it was less than one for Kasargod, Malappuram and Palakkad.

The analysis shows that Malappuram is most backward districts in the state and there exists wide inter-district variations in economic development in Kerala.

The per capita income of Malapuram district is increasing at a rate less than the per capita growth rate of the state. It is illustrated in the table 3.3.

Table 3.3

Per capita income of districts in Kerala (at constant price)

District	1980-81	1990-91	1997-98	Growth rate (per cent)	
				1980-81 to 1990-91	1990-91 to 1997-98
TPM	1484	1842	2523	24.1	37
KLM	1536	1866	2320	21.5	24.3
PTA	-	1981	2594	-	30.9
ALP	1311	1815	2114	38.4	16.5
KTM	1452	1824	2596	25.6	42.3
IDK	1995	2095	2962	5	41.2
EKM	2017	2779	3902	37.8	40.4
TSR	1462	1895	2458	29.6	29.7
PKD	1307	1623	2126	24.2	31
MPM	1045	1094	1444	4.7	32
KKD	1588	1670	2297	5.2	37.5
WYD	-	1933	2884	-	49.2
KNR	1571	1665	2283	5.9	37.1
KSD	-	1559	2331	-	49.5
KERALA	1508	1815	2444	20.4	34.7

Source: A Guide for preparing the District Perspective Plan for Agriculture and Allied Sectors 1999, State Planning Board, Thiruvananthapuram.

During the period between 1980-81 and 1990-91 highest growth rate of per capita income was recorded by Alappuzha (38.4), followed by Eranakulam (37.8) and lowest growth rate is in Malappuram (4.7). During the period between 1990-91 and 1997-98 the highest growth rate is in Kasargod (49.5) closely followed by Wayanad (49.2) and lowest growth rate is in Alappuzha (16.5).

District Income by Industrial Origin

The district income by industrial origin depicts the contributions of different producing sectors to the net domestic product. The changes in it, over time, if any, shows the extent of progress or lack of it, of the economy. It also shows the movement towards or away from the situation already achieved by the district. The occupational structure also shows the similar trend in the economy.

District income is a sum of contribution (i.e. net value added) of various activities such as cultivation of land, animal husbandry, small and large manufacturing industries, trade, transport etc. This is known as income by industrial origin. This has been classified into three major groups. They are:

1. Primary sector constituting agriculture and allied activities.
2. Secondary sector comprising of manufacturing, construction etc. and
3. Tertiary sector constituting of transport, communication, trade, banking etc.

District wise distribution of net domestic product among different sectors are given in table 3.4

Table 3.4.

District-wise distribution of district net domestic product (per cent)

District	1970-71			1985-86			1999-2000		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
TPM	43.78	16.84	39.38	24.44	19.24	56.42	23.72	19.81	56.46
KLM	58.58	15.26	26.16	36.66	21.44	41.2	26.03	24.12	49.84
PTA	-	-	-	42.3	20.0	37	34.57	14.14	51.23
ALP	50.32	14.47	35.21	37.58	20.75	41.67	30.82	23.71	45.46
KTM	56.11	11.24	32.65	42.2	16.38	41.12	29.81	16.39	53.8
IDK	58.94	20.65	20.4	53.48	24.79	21.73	62.18	8.60	29.22
EKM	36.75	27.39	35.86	31.40	29.16	39.44	19.48	27.13	53.4
TSR	44.99	15.85	39.16	33.91	19.08	47.01	21.53	24.86	53.62
PKD	51.96	15.64	32.40	51.31	13.21	35.48	31.89	17.94	50.17
MPM	57.11	6.87	36.02	43.34	8.20	48.46	31.47	16.2	52.31
KKD	44.78	17.79	37.43	36.74	20.28	42.98	20.65	21.95	57.41
WYD	-	-	-	63.3	15.1	21.6	70.15	4.94	24.9
KNR	49.78	14.85	35.57	38.73	12.28	49.99	22.7	23.49	53.81
KSD	-	-	-	47.3	17.9	34.7	23.06	27.61	49.33
KERALA	49.44	16.32	34.24	37.41	19.24	43.35	28.72	20.64	50.64

Source: Economic Review 1976, 1991, 2000 State Planning Board, Govt. of Kerala, Thiruvananthapuram.

Table 3.4 reveals that the changes in the sector wise distribution of net domestic product of districts show that, considering the state as a whole the service sector developed considerably and it contributed 34.24 per cent of the state domestic product in 1970-71 which increased to 43.35 per cent in 1985-86 and further to 50.64 per cent in 1999-2000. While the share of primary sector in the state domestic product has declined from 49.44 per cent in 1970-71 to 28.72 per cent in 1999-2000. But the secondary sector was characterised by a marginal increase.

The study also reveals that the share of tertiary sector has increased in the domestic product of all the districts in Kerala and the increase is greater for Kozhikode district. The share of service sector in Kozhikode has increased from

37.43 per cent in 1970-71 to 57.41 per cent in 1999-2000. Thiruvananthapuram district also shows more or less the same trend. Kannur, Malappuram, Thrissur, Ernakulam and Kottayam were other districts which exhibited greater increase in the share of service sector. Another important point to be noted in that the share of agricultural sector declined for all the districts except for Vynad and Idukki. But the rate of decrease is greater in Kollam, Alappuzha, Thiruvananthapuram and Kottayam districts.

Study also reveals that the shift in favour of non-agricultural sectors may appear to be significant in Malappuram district. This may signify the developing characteristics of the district economy. But these changes are characterised by an unsatisfactory percentage contribution of the industrial sector to net domestic product of the district. A trend somewhat disturbing is the declining growth in the commodity sector (i.e., primary plus secondary) and a faster growth in the non-commodity sector (i.e., tertiary). The contribution of commodity sector in Malappuram was 63.98 per cent in 1970-71. It declined to 51.54 per cent in 1985-86 and further to 47.67 per cent in 1999-20000. In fact the growth of commodity sector was adversely affected by the service sector. Thus the heavy growth in the non-commodity sector over the commodity sector will create serious problem in the district economy.

It is noted that a shift has been taken place from the primary to tertiary sector overcoming the secondary sector. This proves that the sectoral shift hypothesis is valid in the analysis.

Change in Occupational structure

An analysis of change in occupational structure is necessary in the growth contest. A study of occupational structure of Malappuram district shows that the district economy is purely agriculture in character. The percentage distribution of main workers of the district is given in the table 3.5.

Table 3.5
Percentage distribution of main workers of the district and state by industrial category

(per cent)

District	1971				1981				1991				1999			
	Cultivators	Agricultural labourers	Workers-Household industry	Other workers	Cultivators	Agricultural labourers	Workers-Household industry	Other workers	Cultivators	Agricultural labourers	Workers-Household industry	Other workers	Cultivators	Agricultural labourers	Workers-Household industry	Other workers
MPM	18.84	39.13	3.08	38.95	13.11	37.23	2.84	46.82	13.3	34	2.6	50.1	7.2	34	1.8	57
Kerala	17.8	30.7	4.3	47.2	13.07	28.23	3.69	55.01	12.4	25.7	3.9	58	11.9	25.9	2.6	59.6

Source: 1. Economic Review 2001, State Planning Board, Govt. Of Kerala, Thiruvananthapuram.
2. Statistics for Planning 1986, 1991, Directorate of Economic and Statistics, Govt. of Kerala, Thiruvananthapuram.

The percentage of working population in agriculture, of Malappuram district was 57.97 per cent in 1971, 50.34 per cent in 1981, 47.3 per cent in 1991 and 41.2 in 1999, as against 48.5 per cent in 1971, 41.3 per cent in 1981, 38.1 per cent in 1991 and 37.8 per cent in 1999 for Kerala.

Despite an increase in percentage of workers in household industry from 1981 to 1991 in Kerala, Malappuram is characterised by a continuous decrease in the percentage of household industrial workers. This highlights to the fact that decline in both in the percentage of agricultural labourers and workers in the household industry leads to an increase in the percentage of workers in tertiary sectors.

Percentage distributors of main workers of the districts in Kerala shows that Kozhikode is holding the top rank with 45.3 percent of main workers in tertiary sector. The district-wise details of percentage distribution of main workers are illustrated in the table 3.6.

Table 3.6

Percentage distribution of main workers of the districts in Kerala - 2000

District	Primary Sector	Secondary Sector	Tertiary Sector
TPM	47	16.4	36.6
KLM	46.3	22.75	30.9
PTA	59.3	10.7	30
ALP	40.18	26.4	33.42
KTM	49.7	14.4	35.9
IDK	76.2	5.7	18.1
EKM	32.1	25.95	41.95
TSR	38.6	24.4	37
PKD	59.9	13.4	26.7
MPM	47.3	13.9	38
KKD	32.3	22.4	45.3
WYD	74.8	5.67	19.53
KNR	39.7	23.8	36.5
KSD	37.4	25.7	36.9
KERALA	47.2	19.5	33.3

Source : Economic Review – 2001, State Planning Board, Govt. of Kerala Thiruvananthapuram.

The table 3.6 reveals that the percentage of workers of Malappuram district in tertiary sector is 38 per cent of main workers as it is greater than the state level workers in tertiary sector of 33.3 per cent.

Work Participation Rate (WPR)

At all Kerala level the total WPR has shown a steady increase since 1981. Contrary to this pattern certain districts are characterised by a decline in WPR. The details of WPR is illustrated in the table 3.7.

Table 3.7
Work participation rate by districts

(Per cent)

District	1981		1991		2001		Variation	
	WPR	Rank	WPR	Rank	WPR	Rank	1881-1991	1991-2001
IDK	37.8	2	41.57	1	43.3	1	+3.79	+1.73
WYD	38.04	1	38.62	2	39.3	2	+0.58	+0.68
PKD	35.36	3	36.94	3	36.2	3	+1.58	-0.74
EKM	31.68	6	34.51	5	36.1	4	+2.83	+1.59
KSD	33.38	4	33.25	7	34.7	5	-0.13	+1.45
ALP	32.92	5	34.85	4	34.4	6	+1.93	-0.45
KTM	29.82	8	32.68	8	32.9	7	+2.86	+0.22
TPM	30.21	9	32.63	9	32.4	8	+2.42	-0.23
TSR	29.63	10	33.61	6	32.2	9	+3.98	-1.41
KLM	30.38	7	31.89	10	32.1	10	+1.51	+0.21
KNR	28.37	12	28.62	12	31.8	11	+0.25	+3.18
PTA	29.15	11	30.05	11	29.7	12	+0.9	-0.35
KKD	27.1	13	26.47	13	27.9	13	-0.63	+1.5
MAL	25.17	14	24.89	14	24.1	14	-0.28	-0.79
KERALA	30.53	-	32.05	-	32.3	-	+1.52	+0.25

Source: Census of India 1991, Series 10, Kerala Women in Kerala, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram.

Idukki district tops in total work participation rate with 43.3 per cent in 2001 relegating Wayanad district which held the first rank in 1981. Three districts continue to have the same rank in 1981, 1991 and 2001. They are Palakkad (3rd rank), Kozhikode (13th rank) and Malappuram (14th rank). The highest increase in WPR during the decade 1981-91 is recorded in Thrissur with 3.98 percentage points closely followed by Idukki with 3.79 per cent. In the same decade the variations were negative for Kasargod, Kozhikode and Malappuram. The highest

increase in WPR during the decade 1991-2001 is recorded by Kannur with 3.18 per cent. Malappuram with lowest WPR shows a declining trend.

The details of sex-wise work participation rates among the districts in Kerala shows that Malappuram is the least developed district in Kerala. It is illustrated in the table 3.8.

Table 3.8

Sex-wise WPR among the districts in Kerala

(Per cent)

District	1991				2001			
	Male	Rank	Female	Rank	Male	Rank	Female	Rank
TPM	49.93	5	16	9	51.5	6	14.4	10
KLM	47.27	9	17.14	8	48.5	12	16.7	7
PTA	48.07	8	13.13	12	47.6	13	13.2	12
ALP	47.17	10	23.25	4	49.7	9	20.2	5
KTM	51.29	3	14.18	10	52.4	4	13.9	11
IDK	56.56	1	26.23	1	58.4	1	28.1	1
EKM	51.28	4	17.76	7	55.4	3	17.1	6
TSR	48.41	7	20.01	6	50.8	7	15.1	9
PKD	49.69	6	24.93	2	52.2	5	21.1	3
MPM	41.1	14	9.52	13	42.8	14	6.6	14
KKD	44.3	12	9.18	14	48.8	11	8.1	13
WYD	53.09	2	23.66	3	55.7	2	22.8	2
KNR	44.25	13	13.81	11	50	8	15.2	8
KSD	45.93	11	20.91	5	49.3	10	20.8	4
KERALA	47.81	-	16.9	-	50.4	-	15.3	

Source : 1. Census of India 2001, series 10, Kerala, Population Totals.
2. Eco Stat News, April 2002, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram.

The sex-wise work participation rates give a different picture as it is clear from the table 3.8 that 8 districts exceed the male work participation rate of the state 47.81 per cent in 1991. Four districts (Idukki, Wayanad, Kottayam and Ernakulam) have more than half of their male population returned as workers. Malappuram has got 14th rank in respect of male WPR and 13th rank with regard to female WPR in 1991.

In 2001 also Idukki recorded the highest rank for both male and female work participation rates. In eight districts WPR is more than 50 per cent. Malappuram is least developed in female work participation rates.

Female work participation rate is a measure of direct participation of females in economically productive activities which has an influence on the status of women. In Kerala the female work participation rate was the lowest in Malappuram district constituting only 6.6 per cent in 2001.

The scenario of women employment in the rural economies of developing countries is quiet different with low and stable or declining female work participation rates. In some of the countries of Asia the female work participation rate is as low as 6.25 percent in Bangladesh, 6.8 per cent in Pakistan as against 22.7 per cent in India. Malappuram and Kozhikode districts are exhibiting same pattern of work participation rates as in most backward countries of Asia.

A percentage change of workers from household to non-household industries a sign of economic development.

The details of percentage of workers in household and non household industries are given in the table 3.9.

Table 3.9

Percentage of workers to population in the industry

District	Percentage of workers to total population in household industry				Percentage of workers to total population in non-household industry			
	1991	1999	Rank in 1999	Variation in percentage	1991	1999	Rank in 1999	Variation in percentage
TPM	0.6	0.61	4	+.01	2.9	2.7	5	-.2
KLM	0.52	0.46	6	-.06	4.2	4	3	-.2
PTA	0.32	0.29	11	-.03	3.89	1.5	9	-2.39
ALP	2.9	2.6	1	-.3	3.5	3.7	4	+.2
KTM	0.66	0.59	5	-.07	2.4	2.3	8	-.1
IDK	0.23	0.2	12	-.03	1.2	1.1	11	-.1
EKM	0.5	0.44	7	-.06	5	4.6	2	-.4
TSR	1.3	1.2	2	-.01	4.3	4	3	-.3
PKD	0.92	0.83	3	-.09	2.6	2.4	7	-.2
MPM	0.39	0.35	8	-.04	1.48	1.3	10	-.18
KKD	0.38	0.34	9	-.04	2.9	2.6	6	-.3
WYD	0.2	0.14	14	-.06	1	0.86	12	-.14
KNR	0.35	0.31	10	-.04	4	3.7	4	-.3
KSD	0.17	0.15	13	-.02	6.25	5.6	1	-.65
KERALA	0.73	0.66		-.07	3.3	3		-.3

Source : Computed from Economic Review 1992, 001, State Planning Board, Govt. of Kerala. Thiruvananthapuram.

In almost all districts of Kerala, change in percentage of workers from household to non-household industries is insignificant. A decrease in percentage of workers in household industries is not compensated by an increase in workers in non-household industries. Ranking of districts on the basis of percentage of workers to total population in 1999 shows that Wayanad is least developed district. In the case of percentage of workers to total population in household industries Alappuzha recorded highest rank. Kasargod has got the 1st rank in respect of percentage of workers to total population in non-household industries.

It is relevant to observe that the share of employment both in public and private sectors happens to be the lowest in Malappuram district. The details of employment is illustrated in the table 3.10.

Table 3.10

District-wise distribution of public and private sectors employment per lakh of population.

District	1981			1991			1999		
	Employment	Employment per lakh of population	Rank	Employment	Employment per lakh of population	Rank	Employ ment	Employment per lakh of population	Rank
TPM	126635	4879	6	171790	5830	2	175462	5351	3
KLM	171617	7892	1	116487	4838	4	94893	3540	8
PTA	-	-	-	32706	2752	13	38950	2944	12
ALP	64516	3459	8	56093	2802	12	61112	2744	13
KTM	49629	2921	10	58983	3226	10	64175	3153	11
IDK	69103	7133	2	73478	6815	1	89485	7457	1
EKM	130845	5162	3	153596	5453	3	168746	5380	2
TSR	87210	3573	7	97730	3571	8	97339	3201	9
PKD	67173	3288	9	79063	3318	9	84495	3186	10
MPM	43225	1798	11	57921	1870	14	66078	1917	14
KKD	109632	4882	5	96784	3694	7	96537	3690	7
WYD	-	-	-	27775	4132	5	29980	4008	5
KNR	97743	5062	4	91815	4077	6	97668	3897	6
KSD	-	-	-	33635	3139	11	56035	4700	4
KERALA	1017328	4347	-	1147864	3944		1220955	3769	-

Source: Statistics for Planning 1991, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram.

Table 3.10 reveals that in the case of employment per lakh of population Malappuram is the least developed district in the state. It is noted that Malappuram is maintaining the last rank in all the periods under consideration. For maintaining at least the state average level of employment the district will have to be provided employment in the order of 1852 per every lakh of population.

Demographic Factors

Demographic trends relate to the various aspects from which population growth can be looked at such as the number, its density, age and sex composition, etc.

Larger size and Fast Growth

District population is large in size and it is growing rapidly. According to 1991 census the population of district is 3096000. This comes around 10.6 per cent of the state population. According to 2001 census the district population is 3629640 and it constitutes about 11.4 per cent of the population in Kerala. Ranking of districts by population size in 1991 and 2001 is given in the table 3.11.

Table 3.11

Ranking of Districts by Population size in 1991 and 2001

District	Population 1981	Percentage to total population of the State 1981	Rank 1981	Population 1991	Percent to total population of the State 1991	Rank in 1991	Population 2001	Percent total population of the State 2001	Rank in 2001
MPM	2377000	9.39	7	3096330	10.64	1	3629640	11.4	1
TPM	2574000	10.15	4	2946650	10.12	2	3234707	10.16	2
EKM	2524000	9.95	5	2840151	9.76	3	3098378	9.73	3
TSR	2427000	9.59	6	2737311	9.41	4	2975440	9.34	4
KKD	2610000	10.3	3	2619941	9.0	5	2878498	9.04	5
PKD	2030000	8.02	9	2382235	8.19	7	2617072	8.22	6
KLM	2810000	11.1	2	2407555	8.27	6	2584118	8.12	7
KNR	2957000	11.68	1	2251727	7.74	8	2412365	7.58	8
ALP	2346000	9.27	8	2001114	6.88	9	2105349	6.61	9
KTM	1693000	6.68	10	1829257	6.29	10	1952901	6.13	10
PTA	-	-	-	1187460	4.08	11	1231577	3.87	11
KSD	-	-	-	1071508	3.68	12	1203342	3.78	12
IDK	964000	3.81	11	1055151	3.63	13	1128605	3.55	13
WYD	-	-	-	672128	2.31	14	786627	2.47	14
KERALA	25312000	100	-	29098518	100	-	31838619	100	-

Source: Population Census 2001(Provisional) Economic Review 1982, State planning Board, Govt. of Kerala Thiruvananthapuram.

Density

This is about the number of persons per square kilometre. As per 2001 Census the density of population for Malappuram is 1022. Among the districts in Kerala it is the 6th rank. Among the district Alappuzha has the pre-dominant position with 1489 persons per sq.km and Idukki district has the lowest density of 252 per sq.km. The ranking of the districts by population density is illustrated in the table 3.12.

Table 3.12

Ranking of districts by population density

District	Population Density					
	1981	Rank in 1981	1991	Rank in 1991	2001	Rank in 2001
ALP	1319	1	1415	1	1489	1
TPM	1184	2	1344	2	1476	2
KKD	958	4	1118	3	1228	3
EKM	1053	3	963	5	1050	4
KLM	873	5	967	4	1037	5
MPM	677	8	872	7	1022	6
TSR	805	6	903	6	981	7
KTM	771	7	828	8	884	8
KNR	651	9	759	9	813	9
KSD	438	11	538	10	604	10
PKD	456	10	532	11	584	11
PTA	426	12	450	12	467	12
WYD	260	13	315	13	369	13
IDK	193	14	236	14	252	14
KERALA	655		749		819	

Source : Population Census 1981, 1991 and 2001.

Growth Rate

The decadal growth rate of population is highest in Malappuram district. For the period 1971-81 the decadal growth rate of population for district was 29.43 per cent as against 19.24 per cent for Kerala. The decadal growth rate has fallen from 1971 to 1981 and further from 1991 to 2001. However the growth rate remains as the highest for Malappuram district. The data in respect of growth rate of population are illustrated in the table 3.13.

Table 3.13

District-wise decadal growth rate of population

District	1971-81	1981-91	1991-2001	Growth rate Rank (1991-2001)
TPM	18.08	13.50	9.78	6
KLM	18.27	10.68	7.33	9
PTA	9.4	5.6	3.72	14
ALP	11.62	7.28	5.21	13
KTM	10.29	7.71	6.67	12
IDK	25.99	10.45	6.96	11
EKM	17.43	11.42	9.09	7
TSR	14.6	12.2	8.7	8
PKD	21.3	16.52	9.86	5
MPM	29.43	28.87	17.22	1
KKD	23.25	16.69	9.87	4
WYD	33.87	21.32	17.04	2
KNR	24.34	16.63	7.13	10
KSD	27.78	22.78	12.3	13
KERALA	19.24	14.32	9.42	

Source: 1. Census of India 2001, Series 33 Kerala, Provisional Population Totals
2. Economic Review 1981, 1991 State Planning Board, Govt. of Kerala, Thiruvananthapuram.

The districts are arranged according to its rank in respect of urban population. In respect of percentage of urban population in 2001, Malappuram has got 12th rank. Kannur District (50.46 per cent) is having the first rank. The lowest rank goes to Wayanad district. The district wise details and percentage of urban population is given in the table 3.14.

Table 3.14

Ranking of districts by percentage of urban population

District	Percentage of urban population 1991	Rank 1991	Percentage of urban population 2001	Rank 2001
KNR	50.87	1	50.46	1
EKM	48.74	2	47.65	2
KKD	38.34	3	38.25	3
TPM	33.88	4	33.78	4
ALP	30.46	5	29.36	5
TSR	26.31	6	28.21	6
KSD	16.45	9	19.42	7
KLM	18.53	7	18.03	8
KTM	17.55	8	15.35	9
PKD	15.72	10	13.62	10
PTA	13.05	11	10.03	11
MPM	9.12	12	9.81	12
IDK	4.72	13	5.07	13
WAY	3.41	14	3.76	14
KERALA	26.3		25.97	

Source : Census of India 2001.

Ranking of the districts on the basis of percentage of urban population also reveals the backwardness of Malappuram of District.

Sex Composition

This shows the number of females per 1000 males. Information on this together with that on age composition is very important for many things like marriage rate, population growth rate etc. In general the growth rate among females compared to that of males, is low because of biological reasons. Thus, if

the population of females is low the death rate will be affected favourably. Sex composition also influences the marriage rate and the number of children.

Kerala has a unique position with regard to sex ratio. In all the censuses females outnumbred males in Kerala, which is contrary to all India pattern. The pattern of sex ratio is not uniform in all the districts. The highest sex-ratio of 1094 is found in Pathanamthitta district and the lowest in Idukki district with 993 females per thousand males. Thiruvananthapuram and Kozhikode districts have a sex ratio of 1058 and is equal to the sex ratio of the state. While 7 districts have sex ratio above the state average, 5 districts have sex-ratio below state average. Malappuram district with highest growth rate of population was having 7th rank in respect of sex ratio. The district-wise distribution of sex ratio is given in the table 3.15.

Table 3.15

Ranking of districts by sex-ratio

District	Sex-ratio (Number of females per 1000 males)				Rank in 2001
	1971	1981	1991	2001	
PTA	1019	1056	1062	1094	1
TSR	1081	1100	1085	1092	2
KNR	1033	1040	1049	1090	3
ALP	1025	1043	1051	1079	4
KLM	1000	1022	1035	1070	5
PKD	1056	1056	1061	1068	6
MPM	1041	1052	1053	1063	7
TPM	1008	1030	1036	1058	8
KKD	1004	1020	1027	1058	8
KSD	998	1020	1026	1047	9
KTM	991	1001	1003	1025	10
EKM	988	998	1000	1017	11
WYD	922	949	966	1000	12
IDK	937	463	975	993	13
KERALA	1016	1032	1036	1058	

Source : Census of India 2001, Provisional Population Totals.

Within the state all the districts have not fared equally even in socio-demographic indicators particularly those relating to women. With respect to women, study has taken four broad areas of reproductive health, health care, education and employment. Strictly speaking employment would be considered as a major index of economic activity but it is considered necessary to include it as an indicator because of its close implications for socio-demographic progress.

Reproductive Health Indicators

Under reproductive health, the indicators chosen are birth rate, couple protection rate and the percentage of girls married below 18 years. The table 3.16 ranks the district according to their performance in reproductive health indicators.

Table 3.16

District-wise details of reproductive health indicators

District	Birth Rate 1997	Rank	Couple protection rate 1994 per cent	Rank	Complete immunisation coverage (%) 1998-99	Rank	Girls married below 18 years 1998-99	Rank
TPM	18.56	8	75.4	1	81.6	11	2.9	7
KLM	16.56	11	71.7	3	90.6	6	2.3	8
PTA	15.08	13	58.6	8	91.4	3	0	11
ALP	14.04	14	68.4	4	97.3	1	0	11
KTM	17.71	10	73.5	2	79.1	12	0	11
IDK	16.84	12	51.2	10	90.8	5	1.5	10
EKM	18.69	7	68.42	5	93.4	7	0	13
TSR	20.19	5	67.7	6	90.5	13	2	9
PKD	19.19	6	44	13	75.1	14	10.3	5
MPM	26.35	1	43.3	14	59.8	4	35.7	1
KKD	21.37	2	63.6	7	90.9	10	13.6	4
WYD	21.00	3	50.8	11	82.3	8	8.4	6
KNR	17.85	9	58.6	9	84.7	9	19	2
KSD	20.88	4	45.4	12	87.4	-	18.7	3
KERALA	19.19	-	60.9	-	-		8.2	-

Source: 1. Govt. of Kerala, Vital Statistics Bulletin 2001, Directorate of Economics and Statistics, Govt. of Kerala. Thiruvananthapuram.

2. Rapid Household Survey 1999, Directorate of Health Service, Govt. Kerala. Thiruvananthapuram.
3. District Atlas of Women and Children in Kerala 2001, UNICEF, Teynampet, Chennai.

The major point that emerges with regard to reproductive health is that districts differ rather sharply in their birth rates. Four districts of Malappuram, Kasargod, Kannur and Kozhikode have birth rates that are way above the state average. The couple protection rate is rather low in the districts of Malappuram, Palakkad and Kasargod. It is well below the state average. Data regarding girls married below 18 years reveals that the percentage of girls married below 18 years is highest in Malappuram districts. Among other factors low coverage of immunisation probably contribute to differences in health indicators.

AGRICULTURE AND ALLIED ACTIVITIES

Agriculture is the largest and the most important sector of the district economy of Malappuram and about 75 per cent of the population are depending directly or indirectly on agriculture for their livelihood. Nearly 50 percent of the working population are engaged in agriculture and allied activities.

In studying the various facets of agriculture, the first and the foremost thing to know about is regarding the pattern of crops grown, the production of various crops and the productivity in respect of these crops.

Land use and Cropping Pattern

A variety of crops is grown in Malappuram district. The net area sown under this crop is 206143 hectares (1996-97). This constitutes about 56.75 per cent of the total geographical area of the district. The district has a total geographical area of 363230 hectares as against the geographical area of 3885497 hectares for the state. The geographical area of the district is about 9.35 per cent of the state total. The table 3.17 presents detailed information of the land use pattern in Malappuram district and the state.

Table 3.17

Land-use pattern in Malappuram district and Kerala

(in Hectares)

Category	Malappuram		Kerala	
	1983-84	1996-97	1983-84	1996-97
Total Geographical area	363230 (100)	363230 (100)	3885497 (100)	3885497 (100)
Net area sown	201807 (55.55)	206143 (56.75)	2180355 (56.11)	2268613 (58.39)
Total cropped area	247927 (68.25)	262331 (72.2)	2861702 (73.65)	3021224 (77.76)
Cultivable waste	14134 (3.9)	8538 (2.4)	128924 (3.2)	67413 (1.73)
Lnd put to non agricultural use	18974 (5.3)	27427 (7.6)	277719 (7.15)	317871 (8.18)
Forest	103417 (28.47)	103717 (28.47)	1081509 (27.84)	1081509 (27.84)
Land put to agricultural use	335624 (94.7)	335803 (92.4)	3607683 (92.85)	3567626 (91.82)

Source: 1. Govt. of Kerala, Status Paper 1980, Malappuram District Statistics for Planning, State Planning Board, Govt. of Kerala, Thiruvananthapuram, 1986

2. A Guide for preparing the District perspective Plan for Agriculture and Allied Activities, 1999, State Planning Board, Govt. of Kerala Thiruvananthapuram.

The proportion of cropped area in Malappuram district constitutes about 72 per cent of the total geographical area of the district and 8.7 per cent of the total cropped area of the state in 1996-97. Net area sown is 56.75 per cent of the geographical area as against 58.39 per cent in the state. The land put to non-agricultural use in the district was 5.3 per cent in 1983-84 and it increased to 7.6 per cent in 1996-97. The corresponding figure for the state was 7.15 per cent 8.18 per cent respectively.

One important feature of cropping pattern is that the trend is towards an increase in the cultivated area under non-food grain crops. The details of

distribution of gross cropped area between food and non-food crops are illustrated in the table 3.18.

Table 3.18
District-wise details area under food cross and non-food crops as percentage of gross cropped area.

District	Area under food crops			Area under non food crop			Variation in non food crop
	1981	1991	1999	1981	1991	1999	1991-1999
TPM	61.6	45.66	37.9	38.4	54.34	62.1	+7.76
KLM	56.1	48.77	45	43.9	51.23	55	+3.77
PTA	-	41.3	31.8	-	58.7	68.2	+9.5
ALP	6.6	56.8	50.8	35.4	43.2	49.2	+6
KTM	44. 5	31.2	24.2	55.5	68.8	75.8	+7
IDK	59.3	49.7	50.7	40.7	50.3	49.3	-1
EKM	63.2	45.65	44.01	36.8	54.35	55.99	1.64
TSR	70.1	56.36	45.1	29.9	43.64	54.9	11.26
PKD	80.33	68.6	62.3	19.67	31.2	37.7	6.5
MPM	64.6	50.12	42.9	35.4	49.88	57.1	7.22
KKD	44.39	36.02	32.7	55.61	63.98	67.3	3.32
WYD	-	48.9	51.6	-	51.1	48.4	-2.7
KNR	63.66	59.2	47	36.34	47.8	53	+5.2
KSD	-	51.7	43.1	-	48.3	56.9	+8.6
KERALA	61.6	49.5	44.4	38.4	50.5	55.6	+5.1

Source: Statistics for Planning, 2001, Directorate of Economics and Statistics, Govt. of Kerala. Thiruvananthapuram.

Most important feature is that the trend towards an increase in the percentage of gross cropped area devoted to non-food crops and a decrease in the percentage of area used for food crops. Study also reveals that there was an increase in the absolute area meant for non-food crops (see appendix-1). In

contrast to this Idukki and Wayanad registered a marginal decrease in its proportion of non food crops in the period 1991-99. In 1999, with respect to proportion of gross cropped area under non-food crops, Kottayam ranks the first and Palakkad the least.

Land-Man-Ratio

With a large and rising population, land-man-ratio has worsened. The details of per capita availability of land is given in the table 3.19.

Table 3.19

District-wise details of per capita availability of land in Kerala (In hectare)

District	1981	1991	2001	Rank in 2001
TPM	0.085	0.074	0.068	13
KLM	0.09	0.105	0.097	10
PTA	-	0.226	0.218	3
ALP	0.057	0.068	0.065	14
KTM	0.13	0.12	0.11	7
IDK	0.53	0.49	0.46	1
EKM	0.093	0.083	0.076	12
TSR	0.12	0.109	0.101	8
PKD	0.216	0.18	0.167	4
MPM	0.153	0.12	0.1	9
KKD	0.0893	0.089	0.081	11
WYD	-	0.316	0.27	2
KNR	0.1	0.132	0.123	6
KSD	-	0.183	0.163	5
KERALA	0.154	0.134	0.122	

Source: Computed form a Guide for preparing the District Perspective Plan for Agriculture and Allied Sectors, 1999, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

The per capita availability of land for Malappuram is 0.1 hectors in 2001 as against 0.12 hectors for the state. The highest value is for Idukki (0.46) of lowest value (0.065) is for Alappuzha.

Total cropped area increased both in absolute term and in terms of percentage of cropped area. Total cropped area in the district has increased from 24927 hectares (68.25 per cent of geographical area in 1983-84) to 262331 hectares (72.2 per cent) in 1996-97. In the same period the cropped area of the state increased from 73.65 per cent to 77.76 per cent of total geographical area of the state.

A variety of crops is grown in the district. The details of area, production and productivity of important crops are illustrated below:

Among food crops, paddy continues to occupy the central place accounting about 7 per cent of the paddy production of the state in 1998-99. The details of area, production and productivity of paddy in the district is given in table 3.20:

Table 3.20

Area production and productivity of paddy in Malappuram district

Items	1969-70	1980-81	1990-91	1998-99
Area under paddy (hectares) percentage to state in brackets	81388 (9.3)	80022 (9.98)	51934 (9.3)	23818 (67)
Production in tonnes percentage to state total in brackets	88881 (7.2)	107488 (8.45)	80830 (7.4)	42341 (5.8)
Average yield in Malappuram (kgm/hec)	1092	1343	1556	1777
Average yield in the state (kgm/hec)	1403	1586	1942	2061

Source: 1. Govt. of Kerala, Status Paper, Malappuram District, 1980. State Planning Board, Govt. of Kerala Thiruvananthapuram

2. Statistics for Planning 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala

The production of paddy was 7.2 percent of the total paddy production of the state in 1969-70. It decreased to 5.8 per cent during 1998-99. The analysis also shows that average yield of paddy of the district is less than the yield of paddy of the state.

Tapioca

Among the food crops, next to paddy, tapioca continues to occupy an important place accounting for 7.8 per cent of the total production of tapioca in the State in 1998-99. Tapioca is also used as a raw material for the manufacture of starch. The details of area, production and productivity of tapioca are given in the table 3.21.

Table 3.21

Area production and the productivity of Tapioca in Malappuram District

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its percentage to state total	21765 (9.4)	18111 (7.39)	11583 (7.9)	8043 (7.1)
Production in (tonnes) and percentage to state total	219440 (7.1)	228742 (5.63)	217675 (7.8)	205796 (7.8)
Average yield in the district (kgm/hec)	10082	12630	18790	25586
Average yield in the state (kgm/hec)	13284	16576	19134	23322

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

Area under tapioca in continuously decreasing it was 21765 hectare in 1969-70 constituting 9.4 per cent of the total area under tapioca in the stated. It decreased to 8043 hectares in 1998-99. During 1989-70, 1980-81 and 1990-91 the average yield of tapioca in the district was less than the average yield of tapioca in the state. But the productivity is slightly higher than the productivity of the State in 1998-99.

Coconut

Coconut is the second important crop in the district. Hence, it enjoys an important place in the economy of the district. The details of area, production and average yield of coconut in the district are furnished in the table 3.22.

Table 3.22

Area, production and productivity of coconut in Malappuram district

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its percentage to state are under coconut.	33529 (10)	59677 (9.16)	102245 (11.7)	99276 (11.3)
Production in (million nuts) and percentage to state total	257 (9)	264 (8.77)	456 (10.7)	600 (11.7)
Average yield in the district (No./hec.)	5635	4424	4460	6044
Average yield in the state (No./hec)	5589	4618	4864	5816

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The table 3.22 reveals that the area under coconut has increased from 33529 hectares in 1969-70 to 99276 hectares in 1998-99, an increase by 196 per cent. But the product has increased by 133 per cent. That is an increase from 257 million nuts in 1969-70 to 600 million nuts in 1998-99. Average yield of coconut is greater in the district than that of the state except for 1990-91.

Rubber

Rubber is one of the important commercial crops produced in the district constituting 6.1 per cent of the state area under rubber and 5.1 per cent of the yield of rubber in the state. The details of rubber production is illustrated in the table 3.23.

Table 3.23

Area, Production and the productivity of rubber in Malappuram district

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its share to total	11124 (6.3)	19281 (8.1)	20455 (5)	28544 (6.1)
Production in (tonnes) and percentage to state total	4190 (5.4)	10571 (7.5)	19990 (6.5)	31740 (5.7)
Average yield in the district (kgm/hec)	376	548	977	1112
Average yield in the state (kgm/hec)	439	590	747	1190

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The study reveals that Malappuram district is maintaining more or less the same position in respect of area and production of rubber as in the state.

Arecanut

Arecanut is an important cash crop of the district accounting for 19.6 per cent of area under arecanut of the state in 1996-97. The details of area, production and average yield is given in the table 3.24.

Table 3.24

Area, product and productivity of arecanut

Items	1969-70	1984-85	1996-97
Area in hectares and its percentage to state are under coconut.	17134 (20.7)	8300 (15.4)	14883 (19.6)
Production in (million nuts) and percentage to state total	2562 (20)	1153 (13)	2868 (16.7)
Average yield in the district (No./hec.)	149527	138916	192703
Average yield in the state (No./hec)	151303	1633250	225800

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

It is interesting to note that while the area under arecanut in the district has decreased from 17134 hectares (1969-70) to 14883 hectares in 1996-97, the production has increased from 2562 million nuts in 1969-70 to 2868 Million nuts in 1996-97.

Cashew

Cashew is another important cash crop of the district. It is still a wetland crop. The area under the crop has increased from 1969-70 to 1980-81. But, after 1980-81, there was a decrease in the area under cashew. It is given in the table 3.25:

Table 3.25

Area, Production and productivity of cashew in Malappuram

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its share to total	13804 (13.9)	21257 (15)	16182 (13.9)	9950 (11)
Production in (tonnes) and percentage to state total	16901 (15.3)	6887 (8.4)	11408 (11.1)	4169 (8.1)
Average yield in the district (kgm/hec)	1224	323	705	419
Average yield in the state (kgm/hec)	1115	579	889	469

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The area under cashew and yield the cashew has fallen drastically in the state was 1115 kgm/hec in 1969-70 and that of the district was 1224 kgm/hec. It became 469kgm/hec. for the state and 419 kgm/hec. for the district in 1998-99.

Banana

Banana is the major annual crop cultivated in Malappuram. The details of area, production and productivity of banana is illustrated in table 3.26:

Table 3.26

Area, production and productivity of banana in Malappuram

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its share to total	1110 (10)	2598 (18)	3302 (14.9)	5083 (16.6)
Production in (tonnes) and percentage to state total	6178 (8)	35580 (20)	38466 (13)	59389 (15)
Average yield in the district (kgm/hec)	5566	13695	11649	11684
Average yield in the state (kgm/hec)	7286	12339	13356	12666

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The area under banana cultivation increased from 1110 hectares in 1969-70 to 5083 hectares in 1998-99. That is an increase by 357 per cent. To our surprise banana production increased from 6178 tonnes in 1969-70 to 59389 tonnes reflecting an increase by 861 per cent. In 1998-99 total banana production in the district is about 15 per cent of the state banana production.

Pulses

Pulses are generally raised in wet lands after harvest of paddy or in small holdings in the district. The details of area, production and average yield of pulses in Malappuram district are illustrated in the table 3.27.

Table 3.27

Area, production and the average yield of pulses in Malappuram district

Items	1969-70	1984-85	1996-97
Area in hectares and its share to total	2063 (4.9)	1238 (4.3)	493 2.7)
Production in (tonnes) and percentage to state total	932 (5.8)	919 (4.5Z)	367 (2.7)
Average yield in the district (kgm/hec)	451	740	744
Average yield in the state (kgm/hec)	380	710	747

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The area and production on the decrease in Malappuram district. The area under pulses was 4.9 per cent (1969-70) of the area under pulses in the state and it decreased to 2.7 per cent in 1998-99. Production pulses constitutes only 2.7 per cent of the production of pulses in Kerala.

Ginger

Among the tuber crops cultivated in the district ginger takes the second place next to tapioca. Because of the high cost and unsteady market, the area under crop is on the decrease. The details of ginger production in Malappuram district is given in the table 3.28:

Table 3.28

Area, production and the average yield of ginger in Malappuram district

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its share to total	1496 (13)	451 (4)	178 (1.3)	158 (1.4)
Production in (tonnes) and percentage to state total	1371 (11.4)	810 (2.5)	321 (0.7)	271 (0.68)
Average yield in the district (kgm/hec)	916	1796	1803	1715
Average yield in the state (kgm/hec)	1041	2530	2302	3543

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The study reveals that the area under ginger has fallen from 1496 hectares in to 158 hectares in 1998-99. That is area under ginger was 13 per cent of the area under ginger of the state in 1969-70 and it has fallen to 1.4 per cent in 1998-99. Similarly, the production was 11.4 per cent of the production of the ginger in he state in 1969-70. It became 0.68 per cent in 1998-99. Mean yield of the district is considerably lower than the state level productivity.

Pepper

Pepper is cultivated as an inter-crop in coconut and arecanut gardens. The details of area, production and productivity of pepper are given table 3.29:

Table 3.29

Area, production and productivity of pepper in Malabar district

Items	1969-70	1980-81	1990-91	1998-99
Area in hectares and its share to total	2818 (2.4)	4030 (2.7)	7593 (4.5)	7086 (3.9)
Production in (tonnes) at percentage to state total	569 (2.3)	1108 (3.9)	1415 (3)	1145 (1.8)
Average yield in the district (kgm/hec)	202	274	186	162
Average yield in the state (kgm/hec)	207	264	277	375

Source : 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

Table 3.29 shows that the pepper production is about 1.8 per cent of the pepper production in Kerala in 1998-99. Mean yield of pepper is decreasing and it is less than the average yield of pepper in Kerala.

The analysis of the average yield of principal crops during the period from 1969 shows that there was an improvement in the productivity of land, but it was not significant and continuous one. It is also noted that while slight improvements in productivity have taken place in the case of certain crops, a decrease in productivity is witnessed in other crops. For example the productivity of paddy has gone up from 1092 kgm/hectare in 1969-99. But the average yield of coconut has gone down from 7635 nuts/hectare in 1969-70 to 6044 nuts per hectare in 1998-99. In the case of certain other crops productivity has shown an upward trend in seventies and a fall thereafter. For example the productivity of pepper has increased from 202 kgm/hectare in 1969-70 to 274 kgm/hectare in 1980-81. But, after that, productivity of pepper is on the decrease in the district.

The district-wise details of the productivity of selected crops are illustrated in the table 3.30.

Table 3.30

District-wise details of the productivity of the selected crops in Kerala

District	Rice (kg/hec.)			Coconut (nuts/hec.)			Tapioca (kg/hec.)			Rubber (kg/hec.)			Banana (kg/hec.)			Cashew (kg/hec)		
	1986-87	1996-97	Rank 1996-97	1986-87	1996-97	Rank 1996-97	1986-87	1996-97	Rank 1996-97	1986-87	1996-97	Rank 1996-97	1986-87	1996-97	Rank 1996-97	1986-87	1996-97	Rank 1996-97
TPM	1714	1781	10	4541	5953	6	15500	16094	14	590	1050	7	11013	11663	13	306	936	2
KLM	1669	1900	8	4816	4636	16	16350	18653	13	575	1098	6	12806	12750	11	959	660	3
PTA	1863	2156	4	5046	5783	7	21200	24644	10	597	1126	2	14466	14614	4	1129	616	4
ALP	1736	2055	6	5150	4730	9	14842	25652	6	770	877	12	13542	13843	9	393	292	13
KTM	2020	2165	3	4113	4496	11	21930	30532	2	614	1107	5	11210	15813	2	390	286	14
IDK	2112	2075	5	2595	3479	13	20700	27357	4	574	1030	8	23751	15397	3	162	540	7
EKM	1622	1730	11	5198	6098	5	19530	24955	8	507	1125	3	11080	1359	14	361	463	8
TSR	1603	2036	7	5098	6728	2	16349	24779	9	655	1265	1	10672	16777	1	499	553	5
PKD	1879	2291	1	2220	4358	12	13130	26083	5	470	867	13	12698	12695	12	447	459	10
MPM	1336	1719	13	3793	6437	3	14050	27742	3	678	928	11	9927	13334	10	430	462	9
KKD	1103	1254	14	4952	7224	1	10699	19088	12	793	1123	4	10014	14228	6	420	549	6
WYD	1924	2199	2	814	2912	14	28530	35140	1	313	569	14	11888	14057	8	567	372	12
KNR	1435	1724	12	4060	6337	4	18590	25087	7	490	946	10	11786	14174	7	1008	1234	1
KSD	1873	1856	9	4322	5500	8	16219	21262	11	482	978	9	10148	14596	5	615	475	11
KERALA	1719	1924		4494	5846		17063	22354		581	1057		11702	12676		666	710	

Source : A Guide For Preparing the District Perspective Plan for Agriculture and Allied Sectors 1999, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

The district-wise details of the average yield of crops show that the productivity differs from crops to crops and districts to districts. In the case of rice first rank is for Palakkad and the last rank goes to Kozhikode. As far as coconut is concerned 1st rank is recorded by Kozhikode and the last by Palakkad. Wayanad records the first rank in tapioca productivity and last rank is to Kollam. Rubber productivity is higher in Thrissur and lower in Wayanad. Again, Thrissur tops in the case of average yield of banana and last rank goes to Ernakulam. Cashew productivity is higher in Kannur and lower in Kottayam.

Fertilizer Consumption

It is a fact that the scope for extensive cultivation is limited. That is, increase in production cannot be brought about by putting more land under crops. The only way to increase output is to increase the yield per hectare. One of such measures is the increased use of fertiliser. A study of fertilizer consumption, in the state reveals that Malapputam district is one of the least fertilizer consuming districts in Kerala. Table 3.31 illustrates this

Table 3.31

Details of the use of Fertilizer (N+P+K) per unit of gross cropped area (kg/hec.)

District	1991		1999	
	Use of N+P+K per unit of gross cropped area	Rank	Use of N+P+K per unit of gross cropped area	Rank
TPM	73	9	43	11
KLM	60	10	31	14
PTA	122	2	73	8
ALP	87.4	4	95	2
KTM	161	1	140	1
IDK	86.6	8	78	7
EKM	99	3	92	3
TSR	81	7	86	5
PKD	84	6	91	4
MPM	50	12	62	10
KKD	87	5	65	9
WYD	58	11	80	6
KNR	49	13	40	12
KSD	39	14	38	13
KERALA	81		73	

Source : Statistic For Planning 1996, 2001 Directorate of Economics and Statistics, Govt. of Kerala Thiruvananthapuram.

Ranking of the districts on the basis of the use of plant nutrients (N+P+K) per unit of gross cropped area shows that Kottayam recorded the first rank both in 1991 and 1999. Kasargod registered 14th rank in 1991 and 13th rank in 1999. Least fertiliser-consuming district in 1999 is Kollam. The rank of Malappuram is 12th in 1991 and 10th in 1999. The fertiliser consumption of seven districts less than the average value of the state level use of N+P+K per unit of gross cropped area.

Total cropped area of the district in 1998-99 is 8.6 per cent of the total cropped area of the state. But fertiliser consumption is about 6 per cent of the fertilizer consumption in the state 1998-99. The details of the fertiliser consumption of Malappuram district are given in the table 3.32:

Table 3.32

Fertilizer consumption in Malappuram District

(Tonnes)

Year	Fertilizer consumption in the district	Fertilizer consumption in the state	Percentage share of the district.
1972-73	3496	74268	4.7
1978-79	6136	99836	6
1983-84	8389	129477	5.5
1988-89	10651	203791	5.2
1993-94	11112	175197	6.3
1998-99	10759	181487	5.9

Source: 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram

2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

The use of fertilizer (in absolute terms) increased from 1972-73 to 1993-94. But after that it has decreased from 1112 tonnes in to 10759 tonnes in 1998-99.

Irrigation

Agricultural production, in the technical sense is largely determined by the inputs applied and methods adopted. In Malappuram district, the deficiency of this key input has affected the growth of agriculture. The four perennial rivers viz. Bharathapuzha, Chaliyar, Thoothapuzha and Kadalundipuzha and their tributaries are the main sources of irrigation in the district. But the actual utilisation of these available resources are not to the required level. The district has not even a single major irrigation project to its credit. The details of area irrigated is illustrated in the table 3.33.

Table 3.33
Details of gross area irrigated in Malappuram district

District	Gross area irrigated (hectares)			
	1975-76	1982-83	1995-96	1999-2000
Malappuram	19499 (8.5)	23468 (9)	48495 (10.4)	42442 (9)
Kerala	228217 (100)	258744 (100)	465504 (100)	470698 (100)

Source: 1. Govt. of Kerala, Status Paper, Malappuram District 1980 State Planning Board, Govt. of Kerala, Thiruvananthapuram
2. Statistics for Planning, 1986, 2001, Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

Statistics reveals that (see appendix-II) the important sources of irrigation in the district is tanks and wells. Government tanks and wells is in small proportion.

Livestock and Poultry

Thanks to the significance of agriculture, animal husbandry as a subsidiary occupation assumes added importance in the economy of the districts in Kerala. The district wise details of live stock and poultry are given in the table 3.34.

Table 3.34

District-wise detail for Livestock and poultry

District	Total Livestock			Total Poultry		
	1987	1996	Percentage increase	1987	1996	Percentage increase
TPM	518510	468058	-9.73	1857069	2048252	10.3
KLM	509629	457669	-10.9	1445862	2499899	72.9
PTA	295725	290903	-1.63	974546	1158820	18.9
ALP	294596	269081	-8.66	1290625	2595082	101.07
KTM	451406	416829	-7.66	1572041	2333387	48.43
IDK	328224	454896	38.59	688331	1181290	71.62
EKM	475595	467500	-1.7	1849277	1944378	5.4
TSR	445290	440199	-1.14	1723459	2976096	72.68
PKD	513863	565115	9.97	1289320	2273383	76.32
MPM	454910	478945	5.28	2017816	2626343	30.16
KKD	388634	375731	-3.2	1340293	1695386	26.49
WYD	180295	259539	43.95	428080	847781	98.4
KNR	391140	368772	-5.72	898098	1882224	109.58
KSD	253421	263684	4.05	626386	883770	41.09
KERALA	5501238	5576917	1.38	17995803	269464091	49.74

Source : Livestock Census 1996 Dpt. Animal Husbandry.

The livestock population of the district increased from 454910 in 1987 to 47945 in 1996 (an increase by 5.28 per cent) while the increase in the livestock population of the state is only by 1.38 per cent. Poultry population in the district witnessed a 30.16 per cent increase during the same period, whereas poultry population of the state increased by 49.74 per cent. The percentage change in livestock population is negative in 9 districts of Kerala. Poultry population of all the district registered a positive change. It is also noted that the livestock population of the district is about 8.5 per cent of the state livestock population n 1996 and poultry population of the district is only about 1 per cent of the total poultry population of the state in 1996.

The district-wise distribution of livestock per 1000 people is an index of measuring development in livestock. It is illustrated in the table 3.35.

Table 3.35

District – wise number of Livestock Per 1000 People during 1987-1996

Districts	1987				1996			
	Number of live stock per 1000 people	Ranks	Poultry per 1000 people	Rank	Number of live stock per 1000 people	Rank	Poultry per 1000 people	Rank
TPM	178	8	567	8	149	11	650	12
KLM	214	7	540	10	178	7	971	6
PTA	251	4	738	2	229	4	911	7
ALP	149	12	583	5	126	14	1212	1
KTM	250	5	774	1	213	6	1193	2
IDK	307	1	576	5	394	1	1024	4
EKM	170	10	591	3	155	8	645	13
TSR	164	11	562	9	150	10	1016	5
PKD	302	2	486	12	222	5	892	8
MPM	139	14	586	4	145	12	793	9
KKD	148	13	460	13	134	13	584	14
WYD	268	3	573	7	361	2	1179	3
KNR	124	9	358	14	153	9	782	10
KSD	237	6	526	11	230	3	772	11
Kerala	191	-	557		179	--	866	--

Source : Computer from Livestock Census 1987, 1996, Dpt. of Animal Husbandry.

The table reveals Malappuram recorded the 12th rank irrespective of number of livestock per 1000 people and 9th rank with regard to poultry per 1000 people in 1996.

The details of milk and egg availability and the number of animals slaughtered are given in the table 3.36.

Table 3.36

District – wise details of availability of milk, egg and animals slaughtered in Kerala 1996-97

Districts	Per capita per day availability of milk		Per capita per year availability of egg		Animals slaughtered per lakh of people	
	Milk	Rank	Number	Rank	Number	Rank
TPM	259	5	75	5	2662	12
KLM	247	6	76	4	2698	11
PTA	302	2	100	1	4545	4
ALP	200	8	92	2	2835	10
KTM	266	4	87	3	4336	5
IDK	311	1	70	7	6073	1
EKM	219	7	63	8	4983	2
TSR	180	10	58	9	3499	8
PKD	186	9	46	13	1882	13
MPM	106	14	56	10	3279	9
KKD	119	13	50	12	1712	14
WYD	271	3	71	6	3525	7
KNR	142	11	43	14	4115	6
KSD	130	12	52	11	4555	3
Kerala	1999	--	65	--	3557	--

Source : A guide for preparing the district perspective plan for Agriculture and Allied sectors, 1999, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

Table 3.36 shows that Idukki recorded the highest rank in the per capita per day availability of milk and Malappuram the last rank in the case of egg.

Industry

The industrial sector has a crucial role to play in the development of an economy. The level of development of this sector is a measure of economic development of the region. The district wise distribution of registered working

factories shows the existence of inter – district variations in industrial sector. It is illustrated in the table 3.3

Table 3.37

Distribution of Registered Working Factories in Kerala

Districts	1991			2000		
	Number	No. per lakh of population	Rank	Number	No. per lakh of population	Rank
TPM	606	20.6	12	903	27	10
KLM	1188	49.3	6	1949	72	4
PTA	586	49	7	538	40	9
ALP	802	40	9	1221	54	8
KTM	799	44	8	1305	63	6
IDK	289	27	10	327	27	10
EKM	1933	69	2	2979	94	1
TSR	1591	58	3	2620	85	2
PKD	1330	56	4	2018	75	3
MPM	650	20.9	11	973	27	10
KKD	1981	76	1	1741	94	7
WYD	125	19	13	141	85	12
KNR	1182	53	5	1735	75	5
KSD	193	18	14	260	27	11
Kerala	13255	46	--	18170	58	

Source : Economic Review, 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

Ernakulam District tops in the number of working factories per lakh of population (94) in 2000 and the Wayanad registered the last rank (21). Kozhikode recorded the highest rank in 1991. but relegated into 7th rank in 2000.

An analysis of employees per lakh of population shows that there is no improvement in the position of Malappuram District from 1991 to 2000. It is illustrated in the table 3.38.

Table 3.38

District wise details of Factory Employees in Kerala

	1991			2000		
Districts	**No. of Employees**	**Employees per lakh of population**	**Rank**	**Number of employees**	**Employees per lakh of population**	**Rank**
TPM	28043	952	6	29477	887	9
KLM	135673	5637	1	137186	5051	1
PTA	8080	680	10	12413	926	7
ALP	18998	944	7	26443	1175	5
KTM	16543	905	8	17527	850	11
IDK	7019	651	11	7929	652	12
EKM	62571	2221	2	65252	2052	3
TSR	28547	1043	4	36654	1187	4
PKD	21076	885	9	24602	916	8
MPM	8919	288	13	13133	375	13
KKD	28355	1082	3	25584	865	10
WYD	2139	318	12	17018	2245	2
KNR	23346	1036	5	23761	935	6
KSD	2655	247	14	3104	256	14
Kerala	391964	1347	--	440083	1341	

Source : Economic Review, 1994, 2001, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

District wise details of employees per lakh of population shows that the rank of Malappuram was 13th in 1991. and it remained at 13th itself in 2000. The first rank goes to Kollam and last rank for Kasargod.

A positive change in the percentage of workers in non house hold manufacturing sector are used to represent in improvement in the organized part of industry. It is illustrated in the table 3.39

Table 3.39

Percentage of Workers to total population in non-house-hold industry

Districts	Percentage of Workers			
	1991	1999	Rank (1999)	Variation 1991-99
TPM	2.9	2.7	5	-0.2
KLM	4.2	4	3	-0.2
PTA	3.89	1.5	9	-2.39
ALP	3.5	3.6	3.5	-0.2
KTM	2.4	2.3	8	-0.1
IDK	1.2	1.1	11	-0.1
EKM	5	4.6	2	-0.4
TSR	4.3	4	3	-0.2
PKD	2.6	2.4	7	-0.2
MPM	1.48	1.3	10	-0.18
KKD	2.9	2.6	6	-0.3
WYD	1	0.86	12	-0.14
KNR	4	3.7	4	-0.3
KSD	6.25	5.6	1	-0.65
Kerala	3.2	3	--	-0.2

Source 1 Economic Review, 2000, State Planning Board, Govt of Kerala, Thiruvananthapuram
2. Statistics for Planning 2001, Directorate. Economics and Statistics, Govt of Kerala, Thiruvananthapuram

The table 3.39 reveals that the change in the percentage of workers in non house holding industry is negative for all the districts in Kerala. It is insignificant.

The details of contribution by manufacture in the districts in Kerala are illustrated in the table 3.40

Table 3.40

District wise details of per capita contribution by Manufacture

Districts	1981		1991		2000	
	Per capita contribution by Manufacture	Rank	Per capita contribution by Manufacture	Rank	Per capita contribution by Manufacture	Rank
TPM	378	4	402	8	1909	7
KLM	358	6	411	7	2859	4
PTA	-	-	431	6	1014	11
ALP	327	7	446	5	3507	1
KTM	213	10	261	13	1686	9
IDK	567	2	834	2	671	13
EKM	728	1	1010	1	2784	5
TSR	324	5	488	4	3092	3
PKD	304	8	302	12	1904	8
MPM	138	11	129	14	950	12
KKD	418	3	502	3	1643	10
WYD	-	-	3335	9	623	14
KNR	295	9	331	10	2199	6
KSD	-	-	312	11	3094	2
Kerala	368	-	440		2112	--

Source : Computed from 1993, Economic Review, 2001, State Planning Board, govt of Kerala Thiruvananthapuram.

The distribution of income by manufacture shows that Idukki, Wayanad and Malappuram are most industrially backward districts in Kerala. In 1981 and 1991 Malapuram secure the last rank while in 2000 the rank became 12.

The district wise details of per capita investment, capital productivity, labour productivity, per capita contribution by Small Scale Industrial units (SSI), employment in SSI per lakh of population are illustrated in the table 3.41

Table 3.41
District – wise details of Small Scale Industrial Units Registered in Kerala during the year 2000-2001

Districts	Per capita investment (Rs)	Rank	Capital productivity (Rs. Lakhs)	Rank	Labour productivity (Rs.lakh)	Rank	Per capita contribution by SSI (Rs)	Rank	Employment in SSI per lakh of population	Rank
TPM	113	4	2.04	10	0.925	9	230.5	10	252	4
KLM	65	10	2.44	9	0.78	10	160	11	206	7
PTA	60	11	4.11	5	0.93	8	250	6	268	2
ALP	114	3	4.24	4	1.9	3	482	2	254	3
KTM	195	2	1.23	12	0.67	12	240	8	352	1
IDK	78	9	1.91	11	0.99	7	149	12	150	10
EKM	533	1	2.79	8	22.00	1	1488	1	70	14
TSR	107	5	4.08	6	1.89	4	446	3	235	5
PKD	84	7	1.09	13	0.41	13	91	13	222	6
MPM	45	13	6.15	1	3.03	2	279	5	92	13
KKD	53	12	4.45	3	1.28	6	238	9	186	8
WYD	44	14	0.64	14	0.28	14	29	14	100	12
KNR	80	8	4.96	2	0.69	11	397	4	148	11
KSD	89	6	2.8	7	1.38	5	248	7	180	9
KERALA	130		2.94	--	2.01	--	385		191.	

Source: Computed from Economic Review, 2000, State Planning Board, Govt of Kerala Thiruvananthapuram.

The table 3.41 shows that the per capita investment during 2000-2001 is very low in Wayanad (Rs.44.), closely followed by Malappuram (Rs.45). For all the districts in Malabar value of per capital contribution by SSI is less than the value of per capita contribution of SSI in Kerala.

Wayanad ranks at 14th in all cases. It is very interesting to note that Malappuram has got the top rank in the capital productivity and second place in labour productivity. The per capita contribution by Small Scale Industries places the district in the 5th rank and the value per capita contribution of SSI is Rs.279 as against Rs.1488 for Ernakulam and Rs.385 for the state as a whole. The contribution of manufacture (Small Scale & Medium Scale and Large Scale) is very low in the district If we rank the district on the basis of per capita contribution by manufacture the rank is 12th for Malappuram with a per capita contribution of Rs.950/- in 2000 as against Rs.2112 for the state in 2000. This highlights to the fact that, a district with relatively a high level of capital and labour productivity, can be brought to average level of the income of the state by increasing the per capita investment. It is also interesting to note that in all the districts except Wayanad, the per capita contribution by small scale industries is greater than the per capita investment. In Wayanad it is less than the per capita investment. It is worth noting that Ernakulam tops in the per capita investment, labour productivity and per capita contribution by Small Scale Industries, but recorded the last rank in respect of employment created per lakh of population. This shows that the industrial units in Ernakulam are capital intensive.

SERVICE SECTOR

Significant changes have taken place in the service sector in Kerala under service sector analysis is made about banking, transport and communications.

Banking

Banking system can play an important role in the process of economic development. Credit is an important stimulant of sustained development. At present, Kerala has a good network of banks. This part examines, how far the commercial banks succeeded in bringing about economic development through the provision of credit and mobilizing deposits. Main problem is whether the

banking system can meet adequately to the requirements of people and the distribution of banking facility is equal or not. First of all the percentage of bank branches in each district to total branches in the state is calculated. Secondly, percentage of population of the districts in the state is determined. Then, Banking Facility Coefficient (BFC) is calculated by dividing the percentage of bank branches with the percentage of population in different districts. If BFC is one, one can say that the bank branches are evenly distributed. If BFC is greater than one. it shows that the district has more than proportionate share of branches. If BFC is less than one, it indicates that the district has low level of banking facility. The details of BFC is illustrated in the table.3.42

Table 3.42

Banking Facility Coefficient (BFC) in the districts in Kerala

	1991				2000			
District	% of Population	% of bank Branches	BFC	Rank	% of Population	% of bank Branches	BFC	Rank
TPM	10.13	10.24	1.01	6	10.1	10.2	1.01	6
KLM	8.27	6.28	.77	13	8.2	5.9	.72	13
ALP	6.86	7.01	1.02	5	6.9	6.74	.98	7
PTA	4.09	5.75	1.41	2	4	6.7	1.67	1
KTM	6.27	7.94	1.26	3	6.3	7.98	1.24	3
IDK	3.71	3.37	0.91	10	3.7	3.2	.86	10
EKM	9.64	14.17	1.47	1	9.7	14.7	1.52	2
TSR	9.42	10.59	1.12	4	9.4	10.7	1.14	4
PKD	8.19	7.86	.96	9	8.18	7.4	.9	9
MPM	10.66	6.28	.59	14	10.64	6.37	.59	14
KKD	9.01	7.75	.86	12	9	7.54	.837	12
WYD	2.31	2.25	.97	7	2.3	2.2	.96	8
KNR	7.74	6.98	.9	11	7.73	6.5	.84	11
KSD	3.64	3.54	.96	8	3.68	3.8	1.03	5
KERALA	100	100	1		100	100	1	

Source: Computer from Statistics for Planning 1991, 2001, Directorate. Economics and Statistics. Govt of Kerala, Thiruvananthapuram.

An analysis of BFC shows that Malappuram has got the last rank in respect of the provision of banking facility both in 1991 and 2000. The table 3.42 shows that in 1991 BFC of all the districts in Malabar are less than one. But BFC of Kasargod has become greater than one in 2000. In this analysis it is found that 6 districts out of 14 maintained BFC higher than the state average. Moreover it is noted that BFC of Malappuram is as low as 0.59 as against 1.167 for Pathanamthitta and 1.52 for Ernakulam.

District-wise distribution of banks per lakh of population is also shows that Malappuram lags behind all the districts in Kerala in respect of the provision of banking facility. It is illustrated in the table 3.43.

Table 3.43
District-wise Number of Commercial Banks per Lakh of population

District	1981		1991		2001	
	No/Lakh of Population	Rank	No/Lakh of Population	Rank	No/Lakh of Population	Rank
TPM	9	7	9.8	8	10.2	7
KLM	9.1	6	7.4	13	7.35	13
ALP			13.7	2	17.6	1
PTA	13	2	9.85	5	10.35	5
KTM	12.2	3	12.4	3	13.2	3
IDK	7.5	10	8.9	11	9.04	10
EKM	15	1	14.6	1	15.36	2
TSR	12.1	4	11.1	4	11.63	4
PKD	8.7	9	9.4	9	9.17	8
MPM	5.7	11	5.75	14	5.68	14
KKD	8.95	8	8.5	12	8.48	12
WYD			9.55	6	9.15	9
KNR	12	5	8.75	10	8.75	11
KSD			9.44	7	10.22	6
KERALA	9.93		9.8	-	10.05	-

Source: Computed from 1) Statistics for Planning 1993, Directorate of Economics and Statistics Govt of Kerala, Thiruvananthapuram
2) Economic Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram

Malappuram district has not provided with adequate level of banking facilities. Malappuram has got last rank in the case of number of commercial banks per lakh of population in 1981, 1991, and 2001. With respect to this index Ernakulam held the first rank in 1981 and 1991. But in 2001, Pathanamthitta tops at the first.

The deposit mobilization in the districts in Malabar is very low. It is noted that none of the districts in Malabar has a per capita deposit higher than the state average. It is also true of per capita credit. The details are given in the table 3.44.

Table 3.44

District-wise details of per capital credit and deposits in Kerala

	Per capita Credit				Per capita Deposit			
District	1994	Rank	2000	Rank	1994	Rank	2000	Rank
TPM	2464	3	6400	2	7041	9	17404	3
KLM	3047	2	4454	4	4432	12	9067	7
ALP	1587	8	4263	5	13728	5	3235	1
PTA	2118	5	4111	7	13993	4	12914	6
KTM	2423	4	5598	3	15413	3	14224	5
IDK	1116	12	2786	13	3451	13	3184	13
EKM	6513	1	14881	1	22633	1	20888	2
TSR	1910	6	4255	6	16701	2	15414	4
PKD	1181	11	3123	11	7113	8	6565	10
MPM	743	14	1892	14	5664	11	5226	12
KKD	1644	7	3865	9	7335	7	6772	9
WYD	1567	9	3897	8	3240	14	2992	14
KNR	1189	10	3208	10	9420	6	8693	8
KSD	1050	13	2812	12	6245	10	5759	11
KERALA	2206	-	5016	-	12853	-	11861	-

Source: Computed from Statistics for Planning, 2001, Directorate of Economics and Statistics, Govt of Kerala Thiruvananthapuram

An analysis of per capita deposits and credits of commercial banks shows that the position of Malappuram is lowest. The low position of deposits shows the weak resource position of the region

Credit - deposit ratio (C-D ratio) shows how much money received by the bank is given as credit in the district. An analysis of C-D ratio shows that C-D ratio is on the decrease. It is illustrated in the Table. 3.45

Table 3.45

C-D ratio of Commercial Banks in Kerala

Districts	1988		1991		2000	
	C-D Ratio	Rank	C-D Ratio	Rank	C-D Ratio	Rank
TPM	60.12	9	51.03	9	36.78	10
KLM	109.88	3	96.46	3	49.13	5
ALP	17.04	14	14.43	14	13.2	14
PTA	54.38	12	47.44	12	31.84	12
KTM	6.86	8	50.72	10	39.35	8
IDK	123.63	2	102.52	2	87.5	2
EKM	92.31	5	92.89	4	71.24	3
TSR	48.81	13	37.33	13	27.6	13
PKD	57.9	10	51.93	7	47.56	7
MPM	70.57	7	51.36	8	36.19	11
KKD	85.86	6	81.66	5	57.07	4
WYD	218.22	1	198.68	1	130.21	1
KNR	56.97	11	49.3	11	36.9	9
KSD	100.47	4	77.36	6	48.82	6
KERALA	65.65	-	59.14		42.9	-

Source: Statistics for Planning 1993, 2001, Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram

The CD- ratio of the Malappuram districts is only 36.19 percent in 2000 as against 42.9 percent for Kerala While there was a decrease in the C-D ratio of the state by 22.75 percent from 1988 to 2000, the decrease in the C-d ratio of Malappuram is by 34.38 per cent. The district-wise C-D ratio of banks in Kerala shows that the position of Malappuram is 11^{th} in 2000 as against 7^{th} in 1981 and 8^{th} in 1991. In 1991 and 2000 it is well below the C-D ratio of the state. The low C-D ratio also shows the low credit absorption capacity of the region.

Transport and Communications

Transport development occupies a significant place as the basic infrastructure which is crucial for economic development. The development of transport network involves the development of roads, railways etc. adequate roads from villages to marketing centres, marketing centres to growth centres and growth centres to growth centres are necessary to the economic devel9opment of the area.

Railway line covers only 91 Kms in length. Therefore, the districts very heavily depends on the road network.

There exists wide variations in the provision of road facilities in Kerala. It is illustrated in the Table.3.46

Table 3.46

Length (in Kms) of PWD roads per Sq.Km. District wise details

District	1981		1991		2001	
	Length of Road/100Sq.Km	Rank	Length of Road/100Sq.Km	Rank	Length of Road/100Sq.Km	Rank
TPM	64	5	79	3	85.1	4
KLM	98	1	67	5	62.3	5
ALP		-	56.3	6	42.7	11
PTA	89	2	70	4	102.9	1
KTM	80	3	91	1	100.99	2
IDK	26	11	30.3	13	33.4	13
EKM	74	4	82	2	89.9	3
TSR	47	7	52	8	52.3	8
PKD	29	10	34.7	12	36.8	12
MPM	32	9	45	11	49.6	9
KKD	41	8	54	7	55.4	7
WYD	24	12	29.67	14	24.2	14
KNR	59	6	51	9	59.4	6
KSD	-	-	48	10	43.8	10
KERALA	44		53	-	55.3	

Source : Economic Review, 1992, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram.

An analysis of district wise details of road length per 100 sq.Km shows that the availability of road in the district below the state average in all the years under consideration.

Details of PWD roads per lakh of population also shows there is no improvement in the road facility since the formation of the district. PWD roads per lakh of population was 48 Kms. 1981, 51 in 1991 and 48.48 in 2001 as against 74, 70 and 67.55 Kms for the state respectively. The districts wise details of PWD roads per lakh of population is given in the Table.3.47

Table 3.47

District-wise details of PWD Roads per lakh of population

District	1981		1991		2001	
	Length of Road/lakh of population	Rank	Length of Road/lakh of population	Rank	Length of Road/lakh of population	Rank
TPM	59	9	58	10	57.64	11
KLM	113	2	68	7	60.06	10
ALP	-	-	125	2	91.62	3
PTA	67	7	49	13	69.15	7
KTM	103	3	109	3	113.92	2
IDK	135	1	138	1	148.67	1
EKM	71	6	70	6	69.85	6
TSR	58	10	56	11	53.32	12
PKD	63	8	64	9	69.91	9
MPM	48	11	51	12	48.48	13
KKD	43	12	48	14	45.12	14
WYD	93	4	93	4	65.46	8
KNR	90	5	67	8	73.07	4
KSD	-	-	85	5	72.45	5
KERALA	74	-	70	-	67.55	-

Source:- Computer from Economic Review, 1992, 2001, State Planning Board, Govt of Kerala Thiruvananthapuram

District-wise number of goods vehicle per lakh of population shows the figure for Malappuram is 62 in 1981, 112 in 1991 and 474 in 2001 as against the corresponding figures for the state are 136, and 546 respectively. Further details are given in the table.3.48

Table 3.48

District-wise number of goods vehicle per lakh of population

District	1981		1991		2001	
	No. of goods vehicles/lakh of population	Rank	No. of goods lakh/lakh of population	Rank	No. of goods lakh/lakh of population	Rank
TPM	131	5	165	10	510	6
KLM	192	2	254	3	438	10
ALP	50	14	395	2	745	2
PTA	99	9	174	9	511	5
KTM	118	8	249	4	684	3
IDK	145	3	179	7	255	14
EKM	205	1	437	1	1073	1
TSR	129	6	210	5	640	4
PKD	76	12	114	12	453	9
MPM	62	13	112	13	474	7
KKD	122	7	187	6	471	8
WYD	93.4	10	135	11	289	12
KNR	137	4	177	8	401	11
KSD	93	11	108	14	270	13
KERALA	136		207	-	546	-

Source: Computed from Statistics for Planning, 1981, 1991, and 2001 Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram.

The table 3.48 shows that there is an improvement in the index of goods Vehicles per lakh of population in Malappuram district. The rank was 13th in 1981 and 1991 and it became 7th in 2001.

The District-wise details of motor vehicle per lakh of population shows that in all the districts in Malabar the value of the index is less than the value of index for the state. It is illustrated in the table.349

Table No. 3.49

District-wise Details of Motor vehicles on Road in Kerala

District	1981		1991		2001	
	No. of motor vehicles /lakh of population	Rank	No. of motor vehicles/lakh of population	Rank	No. of motor vehicles/lakh of population	Rank
TPM	1643	2	3315	2	9063	4
KLM	850	6	2397	5	5911	7
ALP	187	14	2995	3	10172	2
PTA	813	7	1977	8	4574	9
KTM	950	5	2173	6	9416	3
IDK	607	11	1214	13	2965	14
EKM	1858	1	3719	1	11916	1
TSR	1018	4	2587	4	7415	5
PKD	749	9	1581	9	4720	8
MPM	443	12	990	14	4332	11
KKD	774	8	2141	7	5990	6
WYD	370	13	1247	12	3783	13
KNR	630	10	1432	10	4482	10
KSD	1382	3	1382	11	3891	12
KERALA	960	-	2211		6633	-

Source: Computed from1) Statistics for Planning, 1993, 2001 Directorate of Economics and Statistics, Govt of Kerala Thiruvananthapuram

2) Economic Review, 2001, State Planning Board, Govt of Kerala Thiruvananthapuram.

Ernakulam maintained first rank in 1982, 1991 and 2001. The rank for Malappuram was 12 in 1982 and it became 14th in 1991 and 11th in 2001.

An improvement in telephone facilities and postal service are considered as a sign of development. District-wise details of number of telephone connection per sq.km is illustrated in the table 3.50.

Table 3.50

No. of Telephones per Sq.Kms district wise details

District	2001		1991	
	No/Sq.Km	Rank	No/Sq.Km	Rank
TPM	123	2	25	2
KLM	64	7	12	7
ALP	51	8	7	10
PTA	93	3	17	4
KTM	81	4	18	3
IDK	12	13	2	14
EKM	134	1	36	1
TSR	79	5	13	6
PKD	25	12	5.4	11
MPM	40	10	5.1	12
KKD	66	6	15	5
WYD	12	13	3	3
KNR	48	9	10	8
KSD	34	11	8	9
KERALA	56		11	

Source: Economic Review, 1994 and 2001 State Planning Board, Govt of Kerala, Thiruvananthapuram.

The number of telephone connections of Malappuram district per Sq.Km was 5.1 in 1991 and it rose to 40 in 2001/ (7 times increase by 10 years.) In the same period the connections of the state increased from 11 to 56 (5 times increase.) There was an improvement in the rank of Malappuram from 12 in 1991 to 10 in 2001.

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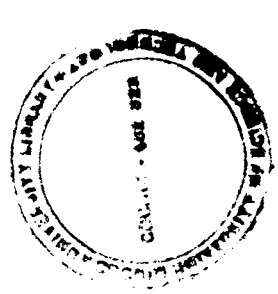

Area and population served by one post office shows that the facilities of postal service in Malappuram districts in adequate. The details are illustrated in the table.3.51

Table 3.51

District-wise details of area and population served by one post office

District	Area served by one post office				Population served by one post office			
	1991	Rank	2000	Rank	1991	Rank	2000	Rank
TPM	5.33	3	5.21	2	7151	11	7895	12
KLM	7.68	8	6.82	7	7401	12	7441	10
ALP	11.1	11	8.12	9	4987	4	4123	1
PTA	3.94	1	4.84	1	5546	7	7729	11
KTM	5.26	2	5.37	3	4344	2	5029	4
IDK	17.25	14	17.31	14	3701	1	4193	2
EKM	6.402	6	6.27	6	7441	13	8276	14
TSR	6.24	5	6.19	5	5626	8	6302	7
PKD	10.18	10	9.9	12	5400	5	5931	6
MPM	8.7	9	8.2	11	7581	14	8085	13
KKD	5.66	4	5.59	4	6312	10	7052	9
WYD	15.22	13	13.15	13	4793	3	4679	3
KNR	7.25	7	7.74	8	5489	6	6631	8
KSD	11.32	12	8.66	10	6085	9	5256	5
KERALA	7.946	-	7.69	-	5932	-	6492	-

Source: Economic Review 1994, 2000 State Planning Board, Govt of Kerala Thiruvananthapuram

It is noted that a decrease in the values of area and population served by one post office implies and improvement in postal services of the area. As far as the area served by one post office, the rank of Malappuram was 9th in 1991 & it became 11th in 2000. In the case of population served by one post office the rank was 14th in 1991 and it became 13th in 2000.

Chapter 4

INTER-DISTRICT VARIATIONS IN ECONOMIC DEVELOPMENT IN KERALA

CHAPTER 4

INTER-DISTRICT VARIATIONS IN ECONOMIC DEVELOPMENT IN KERALA

The major objectives of the study are to identify the inter district variations in economic development in Kerala and to examine the position of development of Malappuram district in terms of development indicators. The identification of the levels of economic development in Kerala is divided into the following broad sectors. viz. a) Health care, b) Education, c) Status of women, d) Infrastructure, e) Agriculture, f) Industry and g) Other development indicators.

Using a set of indicators for each of these sectors, the sectoral indices of development are constructed on the basis of indices method. In simple indices method, an index of each district is computed on the basis of selected indicators, taking the values of each indicators as percentage of the average value of corresponding indicators at the state level. Combining the sectoral indices of development, the composite index of socio-economic development is estimated at the district level.

Health Care

Health care indicators represent the development of medical care infrastructure in the public and private sectors. In measuring the availability of health care services the number of health care institutions (hospitals, PHC_S etc) is taken in relation to total population. The indicators are used with respect of population because the facilities of these services to people are main concern.

Following are the important health care indicators used in our analysis :

1) Number of hospitals per lakh of population.
2) Number of hospital beds per lakh of population.
3) Number of Primary Health Centres (PHC_S) per lakh of population.
4) Number of beds in PHC_S per lakh of population.
5) Number of community Health Centres (PHC_S) per lakh of population.
6) Number of beds in CHC_S per lakh of population.

7) Number of Doctors including dentists per lakh of population.

8) Number of nurses per lakh of population.

The District-wise details of number of Hospitals and hospital beds per lakh of population are given in the table 4.1

Table 4.1

District-wise details of Number of Hospitals under DHS and beds per lakh of population in Kerala – 2001.

Districts	No. of hospitals	Hospitals / lakh of population	INDEX (I)	RANK	No. of Hospital beds	Beds per lakh of population	INDEX (II)	RANK
TPM	19	0.59	1.31	4	6257	193	1.93	1
KLM	9	.348	0.773	8	1500	58	0.58	8
PTA	7	0.57	1.266	6	618	50.1	0.50	9
ALP	12	0.571	1.27	5	3475	16.5	1.65	3
KTM	13	0.67	1.49	2	2502	128	1.28	4
IDK	3	0.27	0.6	11	328	29.1	.29	14
EKM	22	0.71	1.58	1	3010	97.1	0.97	6
TSR	18	0.6	1.33	3	3518	118	1.18	5
PKD	8	0.31	0.69	10	1147	43.8	0.44	10
MPM	7	0.19	0.42	14	1302	35.8	3.58	13
KKD	10	.347	0.77	9	5214	181	1.81	2
WYD	2	.254	.564	12	331	42	0.42	11
KNR	10	.41	.91	7	2298	95	.95	7
KSD	3	.25	.555	13	433	36	.36	12
Kerala	143	.45	1		31933	100	1	

Source : Computed from Economic Review, 2001,State Planning Board. Govt of Kerala, Thiruvananthapuram.

Ranking of districts on the basis of the index of hospital and hospital beds per lakh of population shows that the rank is 14th in the case of number of hospitals and the index is as low as 0.42 for Malappuram as against 1.58 for Ernakulam, 1.49 for Kottayam 1.31 for Thiruvananthapuram. It is also noted that the index is less than one for all this districts in Malabar. The Malappuram district has got 13th rank in respect of number of beds per lakh of population and the Idukki has got the lowest rank with an index of 0.29.

The details of number of Primary Health Centres and of number of beds in PHCs per lakh of population are given in the table 4.2

Table 4.2

District – wise details of Number of PHCs and beds per lakh of population in Kerala – 2001.

Districts	PHCs including M.C.H	PHCs / lakh of population	INDEX (III)	RANK	BEDS	Beds / lakh of population	INDEX (IV)	RANK
TPM	77	2.4	.81	14	424	13	0.79	9
KLM	66	2.56	.865	11	266	10.3	0.63	12
PTA	51	3.96	1.34	2	300	24.2	1.5	4
ALP	65	2.88	0.97	9	261	12.4	0.76	10
KTM	61	3.12	1.05	6	425	22	1.34	5
IDK	54	4.19	1.42	1	412	36.5	2.23	1
EKM	78	2.43	0.821	12	661	21.35	1.3	6
TSR	87	3.01	1.02	8	425	14.3	0.87	8
PKD	86	3.34	1.13	5	659	25.4	1.55	3
MPM	97	2.67	.90	10	606	16.6	1.01	7
KKD	70	2.43	.82	13	239	8.3	0.51	13
WYD	25	3.88	1.31	3	216	33.5	2.04	2
KNR	80	3.1	1.05	7	178	7.3	0.45	14
KSD	46	3.57	1.21	4	143	11.9	0.73	11
Kerala	943	2.96	1		5215	16.4	1	

Source : Economic Review 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Ranking of districts on the basis of the index of PHC per lakh of population shows that the rank is 10th for Malappuram. The last rank is for Thiruvananthapuram. The index is greater that one for Pathanamthitta, Kottayam, Idukki, Thrissur, Palakkad, Wayanadu, Kannur and Kasargod and less than one for other districts of Kerala. The rank of Malappuram is 10th. The number of beds in PHCs per lakh of population shows that Malappuram has got 7th rank with an index 1.01, which is nearly equal to the state index. The 1st rank is for Idukki with an index of 2.23 and the last rank is for Kannur with an index of 0.45.

Ranking of the districts in Kerala in respect of number Community Health Centres (CHC_S) and beds in CHC_S per lakh of population shows that the last position in providing health care facility is for Malappuram. It is illustrated in the table 4.3

Table 4.3

Ranking of Districts on the basis of the index of no. of CHC_S and beds per lakh of population in Kerala – 2001.

Districts	No. of CHC_S	CHC_S / lakh of population	INDEX (V)	RANK	NO. OF BEDS	No. of Beds / lakh of population	INDEX (VI)	RANK
TPM	10	0.309	0.936	10	464	14.34	1.03	8
KLM	8	0.31	0.939	9	347	13.43	0.97	10
PTA	4	0.32	0.969	8	191	15.51	1.12	5
ALP	8	0.38	1.15	4	307	14.58	1.05	7
KTM	8	0.41	1.24	3	392	20.1	1.45	3
IDK	4	0.35	1.06	5	132	11.69	0.84	12
EKM	10	0.322	0.98	7	477	15.39	1.11	6
TSR	9	0.3	0.91	12	323	10.85	0.78	13
PKD	8	0.305	0.924	11	447	17.1	1.23	4
MPM	8	0.22	0.67	14	318	8.76	0.63	14
KKD	10	0.34	1.03	6	346	12.02	0.86	11
WYD	6	0.76	2.3	1	264	33.56	2.41	1
KNR	7	0.29	0.88	13	244	20.27	1.46	2
KSD	5	0.42	1.27	2	163	13.5	0.971	9
Kerala	105	0.33	1		4415	13.9	1	

Source : Economic Review, 2001, State Planning Board, Govt of Kerala Thiruvananthapuram.

Table 4.3 shows that Malappuram district lags behind the other districts of Kerala in respect of number of CHC_S and beds per lakh of population. In both cases the district has got last rank.

Ranking of the districts on the basis of number of Doctors and Nurses per lakh of population also reveals the backwardness of Malappuram district in respect of health care facilities. It is illustrated in the table 4.4

Table 4.4

District – wise details of Doctors and Dentists under DHS in Kerala – 2001

Districts	No. of Doctors including Dentists	Doctors / lakh of population	INDEX (VII)	RANK	No. of NURSES	Nurses / lakh of population	INDEX (VIII)	RANK
TPM	500	15.5	1.4	1	1389	43.2	1.73	1
KLM	227	8.78	0.8	13	401	15.52	0.62	11
PTA	153	12.4	1.13	5	202	16.4	0.66	9
ALP	254	12.1	1.1	6	755	35.9	1.44	4
KTM	247	12.6	1.15	3	709	36.3	1.45	3
IDK	116	10.3	0.94	10	153	13.6	0.54	13
EKM	386	12.5	1.14	4	780	25.2	1.008	6
TSR	308	10.35	.943	9	776	26.1	1.04	5
PKD	245	9.36	0.85	12	418	15.97	0.64	10
MPM	289	7.96	0.73	14	446	12.3	0.49	14
KKD	301	10.5	0.96	8	1087	37.8	1.5	2
WYD	104	13.2	1.2	2	166	21.1	0.84	7
KNR	234	9.7	0.88	11	488	20.2	0.81	8
KSD	129	10.72	0.98	7	177	14.7	.59	12
Kerala	3493	10.97	1		7947	25	1	

Source : Economic Review 2001 State Planning Board, Govt of Kerala Thiruvananthapuram, 1999

The table 4.4 reveals the fact that Malappuram belongs to least developed district in respect of doctors per lakh of population with an index of 0.73. The rank of Malappuram 14th. Except for Wayanad, the index is less than one for other districts in Malabar. The study presented in the table also reveals that Malappuram rank at 14th place according the index of nurses per lakh of population.

Composite Scenario of Health Care Sector

From the above analysis pertaining to health care, it is obvious that Malappuram belongs to the most backward district of Kerala. Combining the individual indicators, the composite index for the sector is estimated. It is illustrated in the table 4.5

Table 4.5

Composite index of Health Care Sector in Kerala

Districts	INDIVIDUAL INDICES								Composite Index (A)	Composite Rank
	I	II	III	IV	V	VI	VII	VIII		
TPM	1.31	1.93	0.81	0.79	0.936	1.03	1.4	1.73	1.242	3
KLM	.773	0.58	0.865	0.63	0.939	0.97	0.8	0.62	0.772	13
PTA	1.266	.50	1.34	1.5	0.969	1.12	1.12	0.66	1.06	6
ALP	1.27	1.65	0.97	0.76	1.15	1.05	1.1	1.44	1.174	4
KTM	1.49	1.28	1.05	1.34	1.24	1.45	1.15	1.45	1.31	2
IDK	0.6	0.29	1.42	2.23	1.06	0.84	0.94	0.54	0.99	9
EKM	1.58	.97	0.821	1.3	0.98	1.11	1.14	1.008	1.1	5
TSR	1.33	1.18	1.02	0.87	0.91	0.78	0.943	1.04	101	8
PKD	0.69	0.44	1.13	1.55	0.924	1.23	0.85	0.04	0.93	10
MPM	0.42	0.35	0.9	1.01	0.67	0.63	0.73	0.49	0.69	14
KKD	0.77	1.81	0.82	0.51	1.03	0.86	0.96	1.5	1.03	7
WYD	0.564	0.42	1.31	2.04	2.3	2.41	1.2	0.84	1.39	1
KNR	0.91	0.95	1.05	0.45	0.88	1.46	0.88	0.81	0.92	11
KSD	.55	0.36	1.21	0.73	1.27	0.97	0.98	0.59	0.83	12
Kerala	1	1-	1	1	1	1	1	1	1	

Source: Compiled from Secondary Data

Composite scenario of health care sector confirms that Malappuram is highly backward. Malappuram ranks at 14th place in the provision of health care facilities. This composite index of health care is only 0.69 for Malappuram as against 1.39 for Wayanad and 1.31 for Kottayam.

It is interesting to note that all the individual indicators of health care are greater than one as far Kottayam is concerned and less than one Kollam is concerned.

Education

Education is an important component in the development process both as a means of development and as an objective of it. Education has direct and indirect impact on the health status of people. It increases the earning capacity of

people, provides wider occupation and choice and encourages healthy habits. The important health care indicators used in this analysis are as follows :

1. Effective literacy rate
2. Distribution of schools per lakh of population.
3. Distribution of vocational higher-secondary schools per lakh of population.
4. District-wise colleges per lakh of population.
5. School students as percentage of population.
6. Students in Arts and Science Colleges.

The analysis of district-wise details of literacy rate reveals that in six districts (Palakkad, Kasargod, Wayanad, Idukki, Malappuram and Thiruvananthapuram) literacy rate is less than the state level literacy rate. In other districts it is greater than the state level literacy rate. The details of literacy rates are given in the table 4.6

Table 4.6

Index of Literacy rates in Kerala District-Wise Details – 2001

Districts	Literacy rate	Index (I)	Rank
TPM	89.36	0.982	9
KLM	91.49	1.006	7
PTA	95.09	1.045	2
ALP	93.66	1.03	3
KTM	95.9	1.054	1
IDK	88.58	0.974	11
EKM	93.42	1.027	4
TSR	92.56	1.018	8
PKD	84.31	0.927	14
MPM	88.61	0.975	10
KKD	92.45	1.016	6
WYD	85.52	0.941	12
KNR	92.8	1.02	5
KSD	85.17	0.936	13
Kerala	90.92	1	

Source : Census of India 2001, Series 2, Kerala, Part XI, Census Atlas.

Despite the high level of per capita income Wayanad ranks 12th in literacy index. Kottayam has got first rank in literacy rate and the rank of Palakkad is 14th. Malappuram has got 10th rank and the literacy rate is below the state average.

District wise distribution of schools per lakh of population indicates the existence of inter district variations in school education. It is illustrated in the table.4.7

Table 4.7

Index of District-wise distribution of schools per lakh of population-2000 (Actual number in brackets)

Districts	LPS per lakh of population	UPS per lakh of population	HS per lakh of population	Total schools per lakh of population	II Index (total)	Rank
TPM	14.95 (497)	6.44 (214)	7.28 (242)	28.67 (953)	0.76	14
KLM	14.94 (406)	7.66 (208)	7.7 (209)	32.84 (892)	0.874	11
PTA	31.7 (425)	10.52 (141)	12.61 (169)	54.85 (735)	1.46	1
ALP	17.94 (405)	6.51 (147)	8.51 (192)	32.96 (744)	0.88	10
KTM	22.5 (464)	9.89 (204)	11.69 (241)	44.08 (909)	1.17	3
IDK	18.67 (227)	8.47 (103)	11.02 (134)	38.16 (464)	1.02	8
EKM	15.32 (487)	6.51 (207)	9.47 (301)	31.3 (995)	0.83	13
TSR	16.84 (520)	7.32 (226)	12.8 (251)	32.29 (997)	0.86	12
PKD	19.35 (553)	8.75 (235)	5.66 (152)	34.98 (940)	0.93	9
MPM	23.85 (833)	9.42 (329)	8.36 (292)	39.39 (1376)	1.05	6
KKD	24.5 (724)	11.1 (328)	6.23 (184)	41.86 (1237)	1.11	5
WYD	34.83 (151)	10.29 (78)	8.58 (65)	38.79 (294)	1.03	7
KNR	28.86 (733)	14.41 (366)	6.61 (168)	49.88 (1267)	1.33	2
KSD	21.84 (264)	12.24 (148)	9.51 (115)	43.58 (527)	1.16	4
Kerala	20.59 (6758)	9 (2957)	7.17 (2615)	37.57 (12330)	1	

Source: Computed from 1) Economic Review 2001 State Planning Board, Govt of Kerala Thiruvananthapuram.

2) Statistics for Planning 2001, Directorate of Economics and Statistics, Govt of Kerala Thiruvananthapuram.

The Index of schools per lakh of population shows that the Malappuram has got sixth place whereas the 1st rank is for Pathanamthitta with an index of 1.46 and Thiruvananthapuram has got last rank with an index of 0.76.

The index of vocational higher secondary schools per lakh of population also shows the inter-district variations in the distribution of V.H.S.S in Kerala. It is illustrated in the following table 4.8.

Table 4.8
Index of Vocational Higher Secondary School per lakh of population in Kerala – 2001.

Districts	No. of V.H.S.S	No. of V.H.S.S per lakh of population	Index (III)	Rank
TPM	41	1.27	1.08	6
KLM	52	2.01	1.7	2
PTA	27	2.19	1.86	1
ALP	21	0.99	0.84	9
KTM	31	1.59	1.35	3
IDK	16	1.42	1.2	4
EKM	34	1.1	0.93	8
TSR	36	1.21	1.03	7
PKD	24	0.92	0.78	11
MPM	26	.72	0.61	13
KKD	28	.97	0.82	10
WYD	7	.89	0.75	12
KNR	16	.66	0.56	14
KSD	16	1.33	1.13	5
Kerala	375	1.18	1	

Source: Computed from Economic Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram.

The distribution of Vocational Higher Secondary Schools among the districts in Kerala shows that most of the districts in Malabar are far behind the districts in Travancore – Cochin area. Here also Pathanamthitta recorded the highest rank with an index of 1.86, closely followed by Kollam with an index

of 1.7. This indices of all the districts in Travancore – Cochin area are greater than one except for Ernakulam. Whereas the indices of the districts in Malabar are less than one except for Kannur.

District – wise distribution of colleges (or higher education facilities) shows that the districts of Malabar are neglected. The Index of colleges per lakh of population shows that indices of the districts in Malabar are less than one except for Wayanad. It is illustrated in the table. 4.9

Table 4.9

District – wise distribution of colleges per lakh of population in Kerala –2001.

District	Govt.	Private	Total number	Colleges / lakh of population	Index (IV)	Rank
TPM	8	12	20	0.61	1.06	7
KLM	1	12	13	0.49	0.85	9
PTA	-	9	9	0.68	1.18	4
ALP	-	12	12	0.54	0.94	8
KTM	1	20	21	1.03	1.79	1
IDK	2	6	8	0.67	1.17	5
EKM	4	21	25	0.78	1.36	3
TSR	3	17	20	0.66	1.15	6
PKD	3	7	10	0.38	0.66	13
MPM	3	9	12	0.35	0.61	14
KKD	6	8	14	0.48	0.84	10
WYD	2	4	6	0.802	1.4	2
KNR	2	9	11	0.44	0.77	11
KSD	3	2	5	0.42	0.73	12
Kerala		148	186	0.572	1	-

Source : Statistics for Planning, 2001, Directorate of Economics and Statistics, Govt of Kerala Thiruvananthapuram.

The table 4.9 reveals the neglect of certain district in the provision of higher education facilities. Distribution of colleges per lakh of population shows that the rank is 14th for Malappuram and the index is as low as 0.66. 1st rank goes to Kottayam with an index of 1.79.

The analysis of school students as a percentage of district population shows that the position of Malappuram district is relatively better than other indicators of education. It is illustrated in the table. 4.10

Table 4.10

Index of School Students in Kerala – 2000

Districts	School students total	Percentage of school students to population	Index (V)	Rank
TPM	480202	14.4	0.9	8
KLM	380838	14	0.875	9
PTA	181984	13.6	0.85	11
ALP	247694	13.19	0.822	12
KTM	282686	13.7	0.86	10
IDK	154074	12.7	0.79	14
EKM	418236	13.16	0.82	13
TSR	483563	15.7	0.98	7
PKD	473997	17.64	1.102	3
MPM	802307	22.9	1.4	1
KKD	506341	17.1	1.07	5
WYD	133584	17.6	1.1	4
KNR	430344	16.9	1.05	6
KSD	223192	18.5	1.16	2
Kerala	5249047	16	1	

Source: Statistics for Planning – 2001. Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram.

Index of school student as a percentage of population reveals that the first rank is for Malappuram with an index of 1.4 whereas the lowest rank is 14th for Idukki with an index of 0.79. It is interesting to note that the index value is greater than one for all the districts in Malabar, where as it is less than one for the districts in Travancore – Cochin.

Index of students, in Arts and Science Colleges highlights the existence of great differences in the distribution of higher education facilities. It is illustrated in the table.4.11

Table 4.11

Index of students in Arts and Science Colleges in Kerala – 2000

Districts	Students Total	Students / lakh of population	Index	Rank
TPM	36906	1110	1.26	4
KLM	31838	1172	1.34	3
PTA	20351	1518	1.72	2
ALP	24319	1077	1.22	5
KTM	35791	1736	1.96	1
IDK	7489	616	0.70	9
EKM	34091	1073	1.21	6
TSR	28836	934	1.06	7
PKD	15654	586	0.66	10
MPM	12079	345	0.39	13
KKD	17728	600	0.68	11
WYD	3496	461	0.52	12
KNR	17709	697	0.79	8
KSD	3834	317	0.36	14
Kerala	290121	884	1	

Source : Statistics for Planning – 2001, State Planning Board, Govt of Kerala Thiruvananthapuram.

The table 4.11 also shows the backwardness of the districts. In Malabar in the provision and utilization of higher education facilities. The index is as low as 0.36 for Kasargod and 0.39 for Malappuram whereas it is 1.96 (Five times greater than that of Kasargod) for Kottayam and 1.72 for Pathanamthitta. Moreover, indices are less than one for the districts in Malabar and greater than one for all the districts in Travancore – Cochin area except for Idukki.

Composite Index of Education

The composite indicators of education elucidate the fact that Malappuram is most backward district in Kerala, in the provision and utilization of educational facilities. It is illustrated in the table 4.12

Table 4.12

Composite Index of Education

Districts	I	II	III	IV	V	VI	Composite index (B)	Composite Rank
TPM	0.982	0.76	1.08	1.06	0.9	1.26	1.007	6
KLM	1.006	0.874	1.7	0.85	0.875	1.34	1.075	3
PTA	1.045	1.46	1.86	1.18	0.85	1.72	1.353	2
ALP	1.03	0.88	0.84	0.94	0.822	1.22	0.955	9
KTM	1.054	1.17	1.35	1.79	0.86	1.96	1.364	1
IDK	0.974	1.02	1.2	1.17	0.79	0.7	0.976	7
EKM	1.027	0.83	0.93	1.35	0.82	1.21	1.02	4
TSR	1.018	0.86	1.03	1.15	0.98	1.06	1.016	5
PKD	0.927	0.93	0.78	0.66	1.102	0.66	0.843	13
MPM	0.975	1.05	0.61	0.61	1.4	0.39	0.738	14
KKD	1.016	1.11	0.82	0.84	1.07	0.68	0.923	10
WYD	0.941	1.03	0.75	1.4	1.1	0.52	0.957	8
KNR	1.02	1.33	0.56	0.77	1.05	0.79	0.92	11
KSD	0.936	1.16	1.13	0.73	1.16	0.36	0.91	12
Kerala	1	1	1	1	1	1	1	-

Source: Compiled from the Secondary Data

The table 4.12 of composite Index of education reveals that the rank of Malappuram is 14^{th} with an Index of only 4.425 as against 8.184 for Kottayam. It is worth nothing that the last five ranks 10^{th}, 11^{th}, 12^{th}, 13^{th}, & 14^{th} are in Malabar area and first seven ranks are in the districts in Travancore-Cochin

area. Among all districts Kottayam with a composite index of 8.184 is at the top of the list closely followed by Pathanamthitta with an Index of 8.115.

STATUS OF WOMEN

Improvement in the status of women is a crucial factor in the development of a region. For measuring the status of women, indicators like education, employment per lakh of female population and mean age at marriage have been used. While educational attainment and employment are direct indicators of improvement in their status, the increase in mean age at marriage was found to be closely associated with the growing levels of education and employment in the modern sector. Social gains from female literacy are very high in terms of reduced fertility, reduced mortality, lower school drop-out rates and lower population growth. S.S.I. Units promoted by women are considered as good indicator of an improvement in the status of women.

Following are the important indicators of measuring status of women:

1. Female literacy rate.
2. Women employees per lakh of female population.
3. Female enrolment at Secondary / Higher secondary and at higher levels.
4. Index of registered small scale Industrial units promoted by women.
5. Index of mean age at marriage.
6. Couple protection rate.
7. Child – Women ratios (CWRs)

Kerala is well known for its remarkable achievements in education. However, there exists some variations in Female Literacy rates among the districts. It is illustrated in the table 4.13.

Table 4.13

Index of Female Literacy Rates in Kerala – 2001

Districts	Female Literacy rate	Index (I)	Rank
TPM	86.26	0.982	9
KLM	88.6	1.008	8
PTA	93.71	1.07	2
ALP	91.14	1.04	3
KTM	94.45	1.08	1
IDK	85.04	0.967	11
EKM	90.96	1.035	4
TSR	89.94	1.023	5
PKD	79.31	0.902	14
MPM	85.96	0.978	10
KKD	88.86	1.01	7
WYD	80.80	0.92	12
KNR	89.57	1.019	6
KSD	79.80	0.908	13
Kerala	87.86	1	-

Source: Economics Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Table 4.13 shows that the highest literacy rate of 94.5 is recorded by Kottayam closely followed by Pathanamthitta (93.71) and Alappuzha (91.14). The lowest rate of 79.31 was recorded by Palakkad. Malappuram has got 10th rank in literacy rate.

The index of women employees per lakh of population shows that Malappuram is most back ward district in the state. The index is 0.481 for Malappuram as against 2.65 for Idukki. The district-wise details of number of women employees per lakh of female population is given in the table 4.14

Table 4.14

District – wise Details of Women Employees per lakh of Population – 2001

Districts	Women employees / lakh of women population	Index (II)	Rank
TPM	3587	1.232	4
KLM	4877	1.67	3
PTA	2436	0.83	9
ALP	2116.4	0.724	10
KTM	2116	0.723	11
IDK	7746	2.65	1
EKM	2934	1.003	6
TSR	2739	0.937	7
PKD	1639	0.561	13
MPM	1406	0.481	14
KKD	2010	0.688	12
WYD	3596	1.23	5
KNR	2702	0.923	8
KSD	5760	1.97	2
Kerala	2923	1	-

Source: Compiled from Economic Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Among all the districts Idukki with an index of 2.65 is at the top of list in respect of number of women employees per lakh of female population. The lowest rank is for Malappuram with an index of 0.481. One known explanation for higher level of employment per lakh of female population in some district is their cropping pattern. Idukki and Wayanad are the two districts with concentration of plantation for which female labour is employed in a large proportion.

The proportion of educational enrolment of female population in age group of 15 – 24 at Secondary / Higher secondary and higher levels by districts reveals the existence inter regional variations in female education in Kerala. This

illustration is prepared by calculating the percentage values of educational enrolment of females in age group 15-24 at secondary / higher secondary and higher levels to the total females in age group 15-24 in each district. It is illustrated in the table. 4.15

Table 4.15
The index of enrolment of female population age group 15-24, in the districts of Kerala- 2001

Districts	Percentage of females in age group 15-24 at secondary / higher secondary and above	Index (III)	Rank
TPM	24.36	1.29	4
KLM	22.59	1.19	6
PTA	30.56	1.62	1
ALP	23.57	1.25	5
KTM	30.03	1.59	2
IDK	16.76	0.886	9
EKM	24.62	1.3	3
TSR	20.17	1.07	7
PKD	10.94	0.579	12
MPM	7.3	0.386	14
KKD	14.81	0.783	10
WYD	11.29	0.597	11
KNR	17.48	0.924	8
KSD	10.02	0.529	13
Kerala	18.91	1	--

Source : Census of India 2001, Series 2, Kerala, Part XI, Census Atlas.

Among the districts of Kerala the percentage of enrolment of females is maximum in Pathanamthitta (30.56per cent), closely followed by the district Kottayam (30.03 per cent). Seven districts fall above the state average and seven below the state average. The lowest percentage of enrolment is seen in the

Malappuram district (7.3 per cent) followed by Kasargod (10.02 per cent). The index of districts in Travancore-Cochin area except Idukki is greater than one while the index is less than one for all the districts in Malabar.

Table 4.16 ranks the districts according to the index of small scale industrial units promoted by women in Kerala per lakh of female population.

Table 4.16
District – wise details of Registered Small Scale Industrial Units Promoted by Women in Kerala – 2001.

Districts	No. of units promoted by women	SSI Units / lakh of female population	Index (IV)	Rank
TPM	5102	306	1.195	7
KLM	5276	395	1.54	2
PTA	2421	376	1.47	6
ALP	4374	400	1.56	1
KTM	3759	380	1.48	4
IDK	2126	378	1.476	5
EKM	3914	250	0.977	9
TSR	3384	218	0.85	10
PKD	3490	258	1.01	8
MPM	1626	87	0.34	14
KKD	2442	165	0.64	11
WYD	1499	381	1.49	3
KNR	1391	110	0.43	13
KSD	864	140	0.55	12
Kerala	41668	256	1	

Source : Computed from Economic Review, 2001 State Planning Board, Govt of Kerala. Thiruvananthapuram,

Table 4.16 shows that among the districts in Kerala, Alappuzha recorded the highest index (1.56) of registered small scale industrial units

promoted by women per lakh of female population closely followed by Kollam with an index of 1.54. The lowest index (0.34) is for Malappuram.

A higher value of mean age at marriage shows an improvement in the status of women. There are some differences in the mean age at marriage of different districts of Kerala. It is illustrated in the table 4.17.

Table 4.17
Index of Mean Age at Marriage (MAM) in Kerala

Districts	MAM	Index (V)	Rank
TPM	22.76	1.04	6
KLM	22.72	1.037	7
PTA	22.9	1.046	4
ALP	23.4	1.068	3
KTM	23.68	1.081	2
IDK	22.8	1.041	5
EKM	23.78	1.086	1
TSR	22.7	1.036	8
PKD	21.77	0.994	10
MPM	20.49	0.936	14
KKD	21.42	0.978	13
WYD	21.48	0.981	12
KNR	22.43	1.024	9
KSD	21.68	0.989	11
Kerala	21.9	1	--

Source : K. Krishnamurthi & G.K. Moli, 1994, "Determinants and correlates of Age at Marriage", K.C. Zacharia & S. Irudaya Raju (Ed.) *"Kerala's Demographic Transition - Determinants and Consequences.*

Six districts of Kerala (Kannur, Kozhikode, Thrissur, Ernakulam, Kottayam, & Alappuzha) have registered mean age at marriage of females higher

than that for Kerala. The highest female age at Marriage is found in the district of Ernakulam (23.78) and lowest in the district of Malappuram (20.49).

The districts differ sharply in couple protection rate. The couple protection rate is very low in the districts of Malappuram, Kasargod, Palakkad, and Kannur. The details of couple protection rate is furnished in the table.4.18

Table 4.18

District wise details of Couple Protection Rates in Kerala (CPR)

Districts	CPR	Index (VI)	Rank
TPM	79.3	1.100	4
KLM	89.2	1.235	1
PTA	69.8	0.967	10
ALP	75.5	1.046	7
KTM	86.5	1.198	2
IDK	78.2	1.083	6
EKM	69.2	0.958	11
TSR	79.2	1.096	5
PKD	57.9	0.802	12
MPM	47.9	0.663	14
KKD	79.6	1.102	3
WYD	71.9	0.996	9
KNR	72	0.997	8
KSD	56.9	0.788	13
Kerala	72.2	1	

Source : K.C. Zachariah, 1994, "Demographic Transition : A Response to Official Policies and Programmes". K.C. Zachariah, S. Irudaya Rajan (Ed) "*Kerala's Demographic Transition – Determinants*".

Kerala is one of the most successful State in India with respect to achievement of family planning targets. The CPR in the state had passed 60per

cent, the target set for India for the year 2001. The higher CPR (89.2 per cent) is found in Kollam, closely followed by Kottayam (86.5per cent).

District wise details of child-women ratios (CWRs) also exhibits the existence inter-district variations in Kerala. CWR (0-4) is calculated by taking number of children of age 0-4 years per thousand women aged 15-49 years.

Table 4.19
Index of Child-Women Ratios (CWRs) in Kerala

Districts	CWR 0-4	Index (VII)	Rank
TPM	313	1.051	6
KLM	299	1.101	5
PTA	296	1.112	4
ALP	276	1.193	2
KTM	274	1.201	1
IDK	314	1.048	7
EKM	277	1.189	3
TSR	296	1.112	4
PKD	364	0.904	10
MPM	492	0.668	13
KKD	328	1.035	8
WYD	366	0.899	11
KNR	333	0.988	9
KSD	393	0.837	12
Kerala	329	1	

Source : Census of India 1991, Kerala State, District Profile, P-816.

If we arrange the districts on the basis of descending order of index of backwardness of C-W Ratio, one can find that Malappuram is most backward district in Kerala.

Combining the individual indicators of women status, composite index of status of women is calculated. It is illustrated in the table.4.20

Table 4.20

Composite Index of women Status

Districts	I	II	III	IV	V	VI	VII	Composite index (C)	Composite Rank
TPM	0.982	1.232	1.29	1.195	1.04	1.1	1.051	1.127	5
KLM	1.008	1.67	1.19	1.54	1.037	1.235	1.101	1.254	2
PTA	1.07	0.83	1.62	1.47	1.046	0.967	1.112	1.159	4
ALP	1.04	0.724	1.25	1.56	1.068	1.046	1.193	1.126	6
KTM	1.08	0.723	1.59	1.48	1.081	1.198	1.203	1.193	3
IDK	0.967	2.65	0.886	1.476	1.041	1.083	1.048	1.307	1
EKM	1.035	1.003	1.3	0.977	1.086	0.958	1.189	1.078	7
TSR	1.023	0.937	1.07	0.85	1.036	1.096	1.112	1.017	8
PKD	0.902	0.561	0.579	1.01	0.994	0.802	0.904	0.822	13
MPM	0.978	0.481	0.386	0.34	0.936	0.663	0.668	0.636	14
KKD	1.01	0.688	0.783	0.64	0.978	1.102	1.035	0.891	12
WYD	0.92	1.23	0.597	1.49	0.98	0.996	0.899	1.016	9
KNR	1.019	0.923	0.924	0.43	1.024	0.997	0.988	0.901	11
KSD	0.908	1.97	0.529	0.55	0.989	0.788	0.837	0.939	10
Kerala	1	1	1	1	1	1	1	1	-

Source: Compiled from the Secondary Data.

From the composite index of women status, it is obvious that Malappuram belongs the least developed district of the State. The study reveals the interesting fact that all the individual indicators of women status of Malappuram district are below the state average. It is the only district having this peculiar feature. It is also noted that most of the districts in Malabar is highly backward in respect of the index of women status.

INFRASTRUCTURE

The development of infrastructure is essential for rapid socio-economic development. In measuring infrastructural development the availability of facilities for banking, electricity, transport and communications are used. Nine indicators have been selected for the purpose of the study as given below:

1. Surfaced roads per 100 sq.km.
2. Surfaced roads per lakh of population
3. Number of goods vehicles per lakh of population.
4. Number of banks per lakh of population
5. Credit – Deposit ratio.
6. No. of telephones per sq.km.
7. No. of telephone per lakh of population.
8. Area served by one post office.
9. Population served by one post office.

Inter district variations in the distribution of surfaced roads are used in terms of length of roads per sq. km and the length of roads per lakh of population.

Road facilities measured in terms of length of roads per 100 sq.kms and road length per lakh of population show that there exists wide variations in the distribution of road facilities. It is illustrated in the table 4.21

Table 4.21

District-wise details of length of roads in Kerala (maintained by PWD) 2001

Districts	Length of roads - kms	Roads per 100 sq: km	Index (I)	Rank	Roads / lakh of population	Index (II)	Rank
TPM	1864.457	85.057	1.537	4	57.64	0.85	11
KLM	1552.096	62.308	1.126	5	60.06	0.89	10
PTA	1128.357	42.708	0.772	11	91.62	1.36	3
ALP	1455.853	102.96	1.86	1	69.15	1.02	7
KTM	2224.718	100.99	1.82	2	113.92	1.69	2
IDK	1677.93	33.432	0.604	13	148.67	2.2	1
EKM	2164.19	89.91	1.624	3	69.85	1.03	6
TSR	1586.391	52.322	0.945	8	53.32	0.79	12
PKD	1646.405	36.75	0.664	12	62.91	0.93	9
MPM	1759.654	49.567	0.896	9	48.48	0.72	13
KKD	1298.654	55.403	1.001	7	45.12	0.67	14
WYD	514.897	24.162	0.437	14	65.46	0.97	8
KNR	1762.631	59.428	1.074	6	73.07	1.08	4
KSD	871.801	43.765	0.791	10	72.45	1.07	5
Kerala	21508.161	55.343	1		67.55	1	--

Source : Economic Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram

The length of roads per 100 sq. km is very high in Alappuzha, Kottayam, and Ernakulam. It is very low in Wayanad, Idukki and Palakkad. The rank of Malappuram is 9th. The length of roads per lakh of population also shows that Idukki and Kottayam recorded the highest two ranks while last two ranks are occupied by Kozhikode and Malappuram.

In addition to the length of roads, the number of goods vehicles per lakh of population is employed because it facilitates the movement of output and inputs necessary for economic development. It is illustrated in the table 4.22

Table 4.22

District-wise details of number of Goods Vehicle per lakh of population

Districts	No. of goods vehicles	No. of goods vehicles / lakh of population	Index (III)	Rank
TPM	16485	510	0.934	6
KLM	11310	438	0.802	10
PTA	9177	745	1.36	2
ALP	10761	511	0.94	5
KTM	13358	684	1.25	3
IDK	2872	255	0.467	14
EKM	33262	1073	1.97	1
TSR	19044	640	1.17	4
PKD	11859	453	0.83	9
MPM	17216	474	0.87	7
KKD	13562	471	0.86	8
WYD	2274	289	0.53	12
KNR	9683	401	0.73	11
KSD	3247	270	0.49	13
Kerala	173856	546	1	

Source: Economic Review, 2001.State Planning Board, Govt of Kerala, Thiruvananthapuram.

District wise details of number goods vehicle per lakh of population reveals that Ernakulam is highly developed district and Idukki is the most backward district in Kerala. The 13th, 12th, and 11th ranks are occupied by Kasargod, Wayanad and Kannur respectively. The Malappuram occupies the 9th place.

The number of scheduled commercial banks per lakh of population also reveals the backwardness of Malappuram district. The district – wise details of number of banks in Kerala are given in the table 4.23

Table 4.23

District – wise details of Number of Banks in Kerala – 2000.

Districts	No. of Banks	No. of Banks / lakh of population	Index (IV)	Rank
TPM	330	10.2	1.00	7
KLM	190	7.35	0.72	13
PTA	217	17.6	1.73	1
ALP	218	10.35	1.02	5
KTM	258	13.2	1.3	3
IDK	102	9.04	0.89	10
EKM	476	15.36	1.51	2
TSR	346	11.63	1.15	4
PKD	240	9.17	0.903	8
MPM	206	5.68	0.56	14
KKD	244	8.48	0.84	12
WYD	72	9.15	0.901	9
KNR	211	8.75	0.86	11
KSD	123	10.22	1.006	6
Kerala	3233	10.15	1	

Source : Economic Review, 2001 State Planning Board, Govt of Kerala, Thiruvananthapuram.

The table 4.23 highlights to the fact that the index of Pathanamthitta (1.73) is three times greater than that of the Malappuram (0.86)

In the case of credit deposit ratio Wayanad recorded the top rank with an index of 3.07. Where as the last rank is recorded by Pathanamthitta with an index of only 0.31. The details of C-D ratio among the districts in Kerala are given in the table 4.24

Table 4.24

District – wise details of credit deposit ratio (C-D ratio) in Kerala – 2000.

Districts	C-D Ratio	Index (IV)	Rank
TPM	36.78	0.869	10
KLM	49.13	1.16	5
PTA	13.20	0.31	14
ALP	31.84	0.75	12
KTM	39.35	0.93	8
IDK	87.5	2.06	2
EKM	71.24	1.68	3
TSR	27.6	0.65	13
PKD	47.56	1.12	7
MPM	36.19	0.85	11
KKD	57.07	1.35	4
WYD	130.21	3.07	1
KNR	36.90	0.872	9
KSD	48.82	1.15	6
Kerala	42.29	1	

Source : Statistics for Planning 2001, Directorate of Economics and Statistics., Thiruvananthapuram

The table 4.24 shows that Wayanad is characterized by high level of C-D ratio whereas Pathanamthitta low level. The rank of Malappuram is 11^{th} with an index of 0.85.

Number of telephone connections per sq. km and per lakh of population is considered as the index of economic development. District wise details of telephone connections are given in the table 4.25

Table 4.25

District – wise details of Telephone Connections in Kerala – 2001

No. of telephone per sq. km.				No. of telephone per lakh of population		
Districts	**No. of telephones per sq.km**	**Index (VI)**	**Rank**	**Avg. no. of telephone / lakh of population**	**Index (VII)**	**Rank**
TPM	123	2.196	2	8300	1.22	4
KLM	64	1.14	7	6100	0.90	7
PTA	51	0.91	8	11000	1.62	1
ALP	93	1.7	3	6200	0.91	6
KTM	81	1.45	4	9100	1.34	3
IDK	12	0.21	13	5400	0.79	10
EKM	137	2.45	1	10600	1.56	2
TSR	79	1.41	5	8100	1.19	5
PKD	25	0.45	12	4300	0.63	11
MPM	40	0.71	10	3900	0.57	12
KKD	66	1.18	6	5400	0.79	10
WYD	12	0.21	13	3300	0.49	13
KNR	48	0.86	9	5900	0.87	8
KSD	34	0.61	11	5600	0.82	9
Kerala	56	1		6800	1	

Source : Economic Review, 2001. State Planning Board, Govt of Kerala,. Thiruvananthapuram.

Details of number of telephone connections per sq. km shows that 1st five ranks are in the districts of Travancore – Cochin areas. The last rank is shared by Wayanad and Idukki. The index of Ernakulam and Thiruvananthapuram is eleven times greater than that of Wayanad and Idukki. Malappuram holds the 10th rank among the districts in Kerala. The number of telephones per lakh of population is highest in Pathanamthitta with an index of 1.62, closely followed by

Ernakulam with an index of 1.56. Last rank is recorded by Wayanad with an index of 0.49 and Malappuram has got 12th rank with an index of 0.57.

Provision of postal facility is also considered as in index in measuring economic development. The concerned indices are measured in terms of area served by one post office and population served by one post office. The details are given in the table 4.26

Table 4.26

District wise details of area and population served by one Post Office- 2000

Sq. km. Area served				Population served		
Districts	**By one post office**	**Index (VIII)**	**Rank**		**Index (IX)**	**Rank**
TPM	5.21	1.477	2	7895	0.82	12
KLM	6.82	1.13	7	7441	0.87	10
PTA	8.13	.94	9	4123	1.57	1
ALP	4.84	1.59	1	7729	0.84	11
KTM	5.37	1.43	3	5029	1.33	4
IDK	17.31	0.44	14	4193	1.54	2
EKM	6.27	1.23	6	8276	0.79	14
TSR	6.19	1.24	5	6302	1.03	7
PKD	9.90	0.78	12	5931	1.10	6
MPM	8.20	0.93	10	8085	0.80	13
KKD	5.59	1.37	4	7052	0.92	9
WYD	13.15	0.57	13	4679	1.38	3
KNR	7.74	0.99	8	6631	0.98	8
KSD	8.66	0.88	11	5256	1.23	5
Kerala	7.695	1		6492	1	

Source : Economic Review – 2000, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Area served by one post office shows that Idukki is least developed. 1st rank goes to Alappuzha, followed Thiruvananthapuram. The rank of Malappuram is 10th. Population served by one post office shows that Ernakulam

& Malappuram recorded 14th and 13th rank respectively. Whereas 1st rank goes to Pathanamthitta and 2nd rank to Idukki.

On the basis of individual indicators composite index of infrastructure is constructed. It is illustrated in the table 4.27

Table 4.27

District – wise details of Composite index of infrastructure in Kerala

Districts	I	II	III	IV	V	VI	VII	VIII	IX	Composite index	Rank
TPM	1.537	0.85	0.934	1	.869	2.196	1.22	1.477	0.82	1.211	3
KLM	1.126	0.89	.802	.72	1.16	1.14	.90	1.13	0.87	0.971	9
PTA	0.772	1.36	1.36	1.73	.31	.91	1.62	.94	1.57	1.175	5
ALP	1.86	1.02	.94	1.02	.75	1.7	0.91	1.59	0.84	1.181	4
KTM	1.82	1.69	1.25	1.3	0.93	1.45	1.34	1.43	1.33	1.393	2
IDK	0.604	2.2	.467	0.89	2.06	.21	0.79	0.44	1.54	1.027	7
EKM	1.624	1.03	1.97	1.51	1.68	2.45	1.56	1.23	0.79	1.538	1
TSR	0.945	0.79	1.17	1.15	0.65	1.41	1.19	1.24	1.03	1.034	6
PKD	0.664	0.93	0.83	.903	1.12	.45	0.63	0.78	1.10	0.823	13
MPM	0.896	0.72	.87	.56	.85	.71	.57	0.93	0.80	0767	14
KKD	1.001	0.67	.86	.84	1.35	1.18	.79	1.37	0.92	0.997	8
WYD	0.437	0.97	.53	.901	3.07	0.21	0.49	0.57	1.38	0.951	10
KNR	1.074	1.08	.73	.86	.872	.86	0.87	0.99	0.98	0.924	11
KSD	0.791	1.07	.49	1.006	1.15	0.61	.82	0.88	1.23	0.894	12
Kerala	1	1	1	1	1	1	1	1	1		-

Source: Compiled from Secondary Data.

The composite index of infrastructure also reveals that Malappuram is the least developed district in the State. For Malappuram all the individual indicators are less than one. Values of the composite index of infrastructure of all the districts in Malabar are less than one.

AGRICULTURE & ALLIED ACTIVITIES

Consumption of plant nutrients (N+P+K) is closely related with the use of high yielding variety of seeds and other modern inputs in agriculture. The percentage of gross cropped area under non-food crops represents the commercialisation and market orientation of agricultural activities. Percentage of irrigated area forms the core of agricultural infrastructure. Yield of food gains is an output indicator giving a measure of productivity in agriculture. Per capita availability of milk and egg and the number of animals slaughtered represent the indicators of other related activities of agriculture.

Following are the important indicators of measuring development in agriculture and allied activities:

1. Consumption of plant nutrients (N+P+K) per unit of gross cropped area.
2. Percentage of irrigated area to net sown area.
3. Yield of food grains (rice) per hectare.
4. Yield of commercial crops per hectare.
5. Percentage of Gross cropped area under non-food crops.
6. Per hectare primary sector advances.
7. Per capita availability of egg.
8. Per capita availability of milk.
9. Number of animals slaughtered per lakh of population.

The district-wise details of the use of plant nutrients shows that the Kerala economy characterized by inter-district variations in the use of chemical fertilizer. It is illustrated in the table 4.28.

Table 4.28
District Wise Details of The Use of Plant Nutrients Per Unit of Grass Cropped Area 1999

District	II NPK+8+K per unit of gross cropped area kg./ hect.	Index (I)	Rank
TPM	43.3	0.6	11
KLM	31.1	0.43	14
PTA	73.00	1.01	5
ALP	94.6	1.30	2
KTM	134.9	1.93	1
IDK	77.9	1.07	7
EKM	92.3	1.27	3
TSR	86.3	1.19	5
PKD	91.4	1.26	4
MPM	62	0.86	10
KKD	64.8	0.89	9
WYD	79.9	1.1	6
KNR	39.9	0.55	12
KSD	31.7	0.44	13
KERALA	72.5	1	

Source : Statistic for the planning, 2001. Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram.

Table 4.28 shows that as far as the consumption of chemical fertiliser is concerned Kottayam tops at the first and the last rank is for Kollam. The rank of Malappuram is 10^{th}

The percentage of irrigated are to net area sown shows the care of agricultural infrastructure. The district-wise, details of the percentage of irrigated area to not area sown are given in the table. 4.29

Table 4.29

District Wise Details of The Percentage of Irrigated Area To Net Sown Area – 2000

District	Percentage of irrigated area to net area sown	Index (II)	Rank
TPM	2.6	.155	13
KLM	.9	0.054	14
PTA	7.1	0.423	9
ALP	40.7	2.4	2
KTM	8.6	0.512	8
TSR	55.2	3.29	1
PKD	31	1.85	3
MPM	16.2	0.96	6
KKD	3.6	0.21	11
WYD	3.1	.185	12
KNR	11.9	0.71	7
KSD	30.7	1.83	4
KERALA	16.8	1	

Source : 1. Statistics for planning, 2001., Directorate of Economics and Statistics, Govt. of Kerala, Thiruvananthapuram

2. A Guide for preparing the district perspective plan for agriculture, 2001, agriculture division, State Planning Board, Thiruvananthapuram.

Thrissur district recorded the top rank with an index of 3.2 as against Kollam the last rank holder with an index of 0.054. The rank of Malappuram is 6th.

The yield of grain (rice) per hectare also shows in the regional variations in the productivity of food grains. It is illustrated in the table 4.30

Table 4.30

Yield of Food Grains (Rice) Per Hectare in Kerala – 2000

District	Productivity Kg/Hectare	Index III	Rank
TPM	2202	999	7
KLM	2013	0.914	9
PTA	2775	1.23	1
ALP	2607	1.18	3
KTM	2619	1.19	2
IDK	2488	1.13	5
EKM	1919	0.871	10
TSR	2150	0.9756	8
PKD	2287	1.04	6
MPM	1793	0.81	12
KKD	1343	0.61	14
WYD	2587	1.17	4
KNR	1691	0.77	13
KSD	1907	0.865	11
KERALA	2203	1	

Source : Computed from Economic review, 2000, State Planning Board, Govt of Kerala, Thiruvananthapuram

Productivity index shows that Pathanamthitta is at the top and Kozhikode is at the bottom and Malapuram holds the 12th rank. District wise details of the index of productivity of non-food crop (rubber) is given in the table 4.31.

Table 4.31

District Wise Details of Productivity of Commercial Crop (Rubber)

District	Kg/Hectare	Index (IV)	Rank
TPM	1279	1.08	2
KLM	1224	1.03	6
PTA	1276	1.072	3
ALP	1039	0.87	13
KTM	1247	1.05	5
IDK	1158	0.97	8
EKM	1273	1.07	4
TSR	1423	1.2	1
PKD	1091	0.92	10
MPM	1111	0.93	9
KKD	1223	1.028	7
WYD	604	.507	14
KNR	1078	0.91	11
KSD	1043	0.88	12
KERALA	1189	1	

Source : Computed from Statistics for Planning, 2001, 86, Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram

The table 4.31 shows that, in the case of productivity index of Commercial crops in Kerala. Thrissur tops at the first and Wynad recorded the last rank

The index of percentage of gross cropped area under non food crops show the existence of inter-district variations in Kerala. The details of this index is illustrated in the table 4.32

Table 4.32
District – Wise Details Percentage of Gross Cropper Area Under Non-Food Crops – 1999

District	Percentage of gross cropped area under non-food crops	Index (V)	Rank
TPM	61	1.089	3
KLM	55	0.982	8
PTA	55.2	.985	7
ALP	31	0.55	14
KTM	75.8	1.35	1
IDK	49.30	0.88	11
EKM	56	1	6
TSR	54.9	0.98	9
PKD	38	0.68	13
MPM	57	1.017	5
KKD	67	1.2	2
WYD	48.4	0.86	12
KNR	53	.946	10
KSD	57.2	1.02	4
KERALA	56	1	

Source : Computed from Statistic for Planning, 2001, Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram

This index shows that Malappuram has got 5th and rank in the index is (1.017) slightly higher than the state index (1). First rank goes to Kottayam and the last rank for Alappuzha.

The credit flow to primary sector also shows desperate picture. It ranges from 0.011 lakhs in Malappuram to 0.061 lakhs in Ernakulam during 1996-97. The district wise details of per hectare primary sector advances are given in the table 4.33.

Table 4.33

District – Wise Details of Per Hector Primary Sector Advances To Gross Cropped Area – 1997

District	Per hector Primary sector advancing Rs. Lakhs	Index (VI)	Ranks
TPM	0.0529	1.23	4
KLM	0.0242	0.56	13
PTA	0.042	0.98	8
ALP	0.044	1.023	6
KTM	0.055	1.28	3
IDK	0.033	0.78	11
EKM	0.061	1.42	1
TSR	0.047	1.09	5
PKD	0.0308	0.72	12
MPM	0.011	0.26	14
KKD	0.057	1.33	2
WYD	0.041	0.91	10
KNR	0.044	1.02	7
KSD	0.0405	0.94	9
KERALA	0.043	1	

Source : Nineth Five Year Plan, 1997-2002, Report of the Task Force on Agricultural Financing, State Planning Board, Govt of Kerala, Thiruvananthapuram

The table 4.33 shows that in the case of per hectare primary sector advances Malappuram lags behind all other districts in Kerala. The index of Malappuram is only 0.26 as against 1.42 for Ernakulam

The district wise details of per capita availability of egg. per years is illustrated in the table 4.34

Table 4.34

District Wise Details of Per Capita Availability of Egg Per Year – 1997

Districts	Per capita availabilities per year	Index (VII)	Rank
TPM	75	1.15	5
KLM	76	1.17	4
PTA	100	1.54	1
ALP	92	1.42	2
KTM	87	1.34	3
IDK	70	1.08	7
EKM	63	0.97	8
TSR	58	0.89	9
PKD	46	0.71	13
MPM	56	0.86	10
KTD	50	0.77	12
WYD	71	1.09	6
KNR	43	0.66	14
KSD	52	0.8	11
KERALA	65	1	

Source : A guide for preparing the District perspective plan for Agricultural and Allied Sectors, 1999, Agricultural Division, State Planning Board, Govt of Kerala Thiruvananthapuram.

The Index of per capita availability of egg reveals that the position of the district is 10^{th} with an index of 0.86. Pathanamthitta ranks the first with an index of 1.54 and Kannur ranks 14^{th} with an index of 0.66.

Per capita per day availability of milk also shows that Malappuram is the least developed district in Kerala. It is given in the table 4.35

Table 4.35
District Wise Details of Per Capita Per Day Availability of Milk in Kerala – 1997

District	Per capita per day availability of Milk	Index (VIII)	Rank
TPM	259	1.3	5
KLM	247	1.24	6
PTA	302	1.52	2
ALP	200	1.01	8
KTM	266	1.34	4
IDK	311	1.56	1
EKM	219	1.1	7
TSR	180	0.9	10
PKD	186	0.93	9
MPM	106	0.53	14
KKD	119	0.6	13
WYD	271	1.36	3
KNR	142	0.71	11
KSD	130	0.65	12
KERALA	199	1	-

Source : A Guide for Preparing the District Perspective Plan for Agriculture and Allied Sectors, 1999, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Malappuram remains backward in the per capita per day availability of milk. The rank of Malappuram is 14th and the index is 0.53. First rank goes to Idukki with an index of 1.56.

District wise details of number of animals slaughtered per lakh of population (Annual) is illustrated in the table.4.36

Table 4.36

District – Wise Details of Number of Animals Slaughtered Per Lakh of Populations (Annual)

Districts	Number of animals slaughtered per lakh of population	Index (IX)	Rank
TPM	2662	0.75	12
KLM	2698	0.76	11
PTA	4545	1.3	3
ALP	2835	0.8	10
KTM	4336	1.22	5
IDK	6073	1.71	1
EKM	4983	1.4	2
TSR	3499	0.98	8
PKD	1882	0.53	13
MPM	3279	0.92	9
KKD	1712	0.48	14
WYD	3525	0.99	7
KNR	4115	1.16	6
KSD	4555	1.28	4
KERALA	3557	1	

Source : A guide for Preparing the District Perspective Plan for Agriculture and Allied Sections, 1999, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Table 4.36 shows that index vale of animal slaughtered is higher for Idukki (1.71) and lower for Kozhikode 0.48. The rank for Malappuram is 9th and the index is 0.98.

By combining the individual indices composite index for the sector is constructed. It is illustrated in the table 4.37

Table 4.37

Composite Index of agriculture

District	I	II	III	IV	V	VI	VII	VIII	IX	Composite Index (E)	Rank
TPM	0.6	0.155	.999	1.08	1.09	1.23	1.15	1.3	0.75	.928	9
KLM	0.43	0.054	.914	1.03	.982	0.56	1.17	1.24	0.76	.793	12
PTA	1.01	0.423	1.23	1.07	.985	0.98	1.54	1.52	1.3	1.118	5
ALP	1.3	2.4	1.18	.87	055	1.023	1.42	1.01	0.8	1.173	3
KTM	1.93	0.512	1.19	1.05	1.35	1.28	1.34	1.34	1.22	1.246	2
IDK	1.07	0.36	1.13	0.97	.88	0.78	1.08	1.56	1.71	1.06	6
EKM	1.27	1.12	.871	1.07	1	1.42	.97	1.1	1.4	1.136	4
TSR	1.19	3.29	.976	1.2	.98	1.09	.89	0.9	0.98	1.28	1
PKD	1.26	1.85	1.04	.92	.68	0.72	.71	0.93	0.53	.96	8
MPM	0.86	0.96	.81	.93	1.02	0.26	.86	0.53	0.92	.736	14
KKD	0.89	0.21	.61	1.03	1.2	1.33	.77	0.6	0.48	.791	13
WYD	1.1	0.185	1.17	.507	0.86	.91	1.09	1.36	0.99	.908	11
KNR	0.55	0.71	.77	.91	.946	1.02	.66	0.71	1.16	.927	10
KSD	0.41	1.83	.865	.88	1.02	0.94	.8	0.65	1.28	.963	7
KERALA	1	1	1	1	1	1	1	1	1	1	-

Source: Compiled from the Secondary Data.

Composite index of agriculture agriculture and allied sectors shows that Malappuram is the least developed district in respect of agriculture development. It is also noted that the indices of the districts in Malabar are less than One.

INDUSTRY

Percentage of workers in manufacturing is a basic indicator of industrialization. Percentage of workers in non-household manufacturing are used to represent the organized part of measures are the per capita contribution by manufacture and number of manufacturing establishments.

Following are the important indicators of measuring industrial development.

I. The percentage of workers in manufacturing (household plus non household)

II. Percentage of workers in non-household manufacturing.

III. Per capita contribution by manufacture.

IV. Number of manufacturing establishments per lakh of population.

The employment in manufacturing is an indicator of industrial development. The percentage of workers in manufacturing is an illustrated in the table 4.38.

Table 4.38
Percentage Share Of Workers (Household Plus Non-Household) In Manufacturing In Kerala – 1999

District	Percentage of workers manufacturing	Index - 1	Rank
TPM	12	0.83	8
KLM	19	1.3	4
PTA	7	.49	12
ALP	22.6	1.57	1
KTM	10.4	0.72	10
IDK	3.8	0.26	13
EKM	17.8	1.2	5
TSR	19.3	1.34	3
PKD	10.8	0.75	9
MPM	8.7	0.6	11
KKD	14	0.97	7
WYD	3.47	0.24	14
KNR	16.5	1 15	6
KSD	21.1	1.47	2
KERALA	14.4	1	

Source: Economic Review 2000, State Planning Board, Govt. of Kerala, Thiruvananthapuram.

The figure related to this indicator shows that Malappuram ranks at 11th place and the percentage share of workers is 8.7 percent and the index is only 0.6. Alappuzha ranks at the top with an index of 1.57 (more than twice of the index of Malappuram, Pathanamthitta, Idukki and Wynad districts). The last rank is recorded by Wynad with an index of 0.24.

The percentage of workers in non-household industries represents the organized part of industry. The study reveals that the industrial development of Wynad is very poor and other industrially backward districts are Idukki, Pathanamthitta and Malappuram.

The details of percentage of worker in non-household industry is illustrated in the table 4.39

Table 4.39
District Wise Details of The Percentage of Workers in Non-Household Industry 1999

District	Percentage of workers non-household	Index - II	Rank
TPM	9.7	0.82	8
KLM	17.1	1.45	2
PTA	5.8	0.49	12
ALP	12.9	1.09	6
KTM	8.2	0.69	9
IDK	3.2	.27	13
EKM	16.2	1.37	3
TSR	14.8	1.25	5
PKD	8	67	10
MPM	6.9	0.58	11
KKD	12.4	1.05	7
WYD	3	30.25	14
KNR	15.2	1.28	4
KSD	20.5	1.7	1
Kerala	11.8	1	

Source : Economic Review, 2001, State Planning Board, Govt of Kerala, Thiruvananthapuram,

The table 4.39 reveals that Kasargod district recorded the 1st rank is respect of percentage of workers in non-household industrial closely followed by Kollam.

The per capita contribution by manufacture is the most important single indicator revealing the industrial development of a region. The same may be treated as a proxy of economic development. The district wise details of per capita contribution is illustrated in the table 4.40

Table 4.40

District Wise Details of Per Capita Contribution By Manufacture – 2000

District	Per capita contribution by manufacture	INDEX – III	Rank
TPM	1909	40.91	7
KLM	2859	1.34	4
PTA	1014	0.48	11
ALP	3507	1.66	1
KTM	1.686	0.8	9
IDK	671	0.32	13
EKM	2784	1.32	5
TSR	3092	1.5	3
PKD	1904	0.9	8
MPM	950	0.45	12
KKD	1643	0.78	10
WYD	623	.29	14
KNR	2199	1.04	6
KSD	3094	1.57	2
KERALA	2112	1	

Source : Economic review, 2000, State Planning Board, Govt of Kerala, Thiruvananthapuram

The figures related to per capita contribution by manufacture reveals that six districts are above the state average. Alappuzha recorded the 1st rank with

an index at 1.66 and Wynad the last rank with an index of 0.294. The rank of Malappuram is 12th with an index of the index in 0.449.

The district wise details of the under of manufacturing establishment per lakh of population also reveals the existence of inter-district variations in the distribution of industries in Kerala. It is illustrated in the table 4.1.

Table 4.41

Details of Number of Working Factories Per Lakh of Population – 2000

District	Number of working factories per lakh of population	Index IV	Rank
TPM	28	0.47	11
KLM	75	1.27	4
PTA	44	0.75	9
ALP	58	0.98	8
KTM	67	1.14	6
IDK	29	0.49	10
EKM	96	1.63	1
TSR	88	1.49	2
PKD	77	1.31	3
MPM	27	0.46	12
KKD	59	1	7
WYD	18	0.31	14
KNR	72	1.22	5
KSD	22	0.37	13
KERALA	59	1	

Source : Statistics for Planning, 2001 Directorate Economics and Statistics, Govt of Kerala, Thiruvananthapuram.

The index of working factories per lakh of population reveals that Wayanad, Kasargod and Malappuram are industrially back ward districts in Kerala.

COMPOSITE INDEX OF INDUSTRY

From the above analysis pertaining to industry it is obvious that Malappuram be buys to the backward districts of the composite scenario of industrial development are illustrated in the table 4.42

Table 4.42

Composite Index of Industrial Development

District	I	II	III	IV	Composite index (F)	Rank
TPM	.83	0.82	.91	0.47	0.756	10
KLM	1.3	1.45	1.34	1.27	1.34	3
PTA	0.49	0.49	0.48	0.75	0.553	11
ALP	1.57	1.09	1.66	0.98	1.325	4
KTM	0.72	0.69	0.8	1.14	0.83	9
IDK	0.26	0.27	0.32	0.49	0.335	13
EKM	1.2	1.37	1.33	1.68	1.395	1
TSR	1.34	1.25	1.5	1.49	1.39	2
PKD	0.75	0.67	0.9	1.31	0.908	8
MPM	0.6	0.58	0.45	0.46	0.522	12
KKD	0.97	1.05	0.78	1	0.95	7
WYD	0.24	0.25	0.29	0.31	0.273	14
KNR	1.15	1.28	1.04	1.22	1.175	6
KSD	1.47	1.7	1.51	0.37	1.277	5
KERALA	1	1	1	1	1	-

Source: compiled from the Secondary Data.

Composite index of industrial development shows that Malappuram is one of the backward districts in Kerala. The rank of Malappuram is wealth as far as the industrial developments index is concerned. The last rank goes to Wayanad. The values of individual indices are less than one in the case of the districts Thiruvananthapuram, Pathanamthitta, Idukki, Malappuram and Wayanad.

OTHER INDICATORS OF DEVELOPMENT

A Part from measuring the development on the basis of certain indicators relating to education, health care, agriculture, of industry, certain other indicators of economic development are considered they are

1. Per capita income
2. Life expectancy of birth
3. Work Participation rate.

Ranking of the districts on the basis of per capita income index shows that the Malappuram is most backward district of the state. They details of per capita income index given in the table 4.43.

Table 4.43

District Wise Details of Per Capita Income Index 1999-2000

District	Per-capita income (at current prices) Rs.	Index I	Rank
TPM	20484	1.05	7
KLM	18426	0.95	8
PTA	17980	0.92	11
ALP	21916	1.13	3
KTM	21871	1.12	4
IDK	21297	1.09	6
EKM	23020	1.18	2
TSR	21362	1.1	5
PKD	18031	0.926	10
MPM	13782	0.71	14
KKD	18105	O.93	9
WYD	34123	1.75	1
KNR	17260	0.83	12
KSD	16121	0828	13
KERALA	19461	1	-

Source : Economic review, 2000, State Planning Board, Govt of Kerala, Thiruvananthapuram.

Table 4.43 reveals that Malappuram is least developed district in the state. The per capita index of the Malappuram is 0.71 and Malappuram has recorded the last rank as per this indicator and with an index of 1.75 Wynad is at the top of the rank.

Life Expectancy of Birth (LEB) trends have high correlation with the general indicators of socio economic development. Theoretically, LEB is considered as the best indicator of economic development. The details of LEB is Kerala are given in the table 4.44

Table 4.44

District Wise Details of LEB In Kerala – 2001

District	Male	Female	Total	Index II	Rank
TPM	76	80	77.95	1.04	1
KLM	75.98	74.98	75.49	1.01	6
PTA	76	77.6	76.78	1.02	2
ALP	75.7	75.5	75.6	1.008	5
KTM	73.5	75.75	74.6	0.995	10
IDK	69.47	76.28	72.79	0.97	13
EKM	75.45	76.28	75.85	1.011	4
TSR	73.17	74.98	74.05	0.987	11
PKD	75.7	76.28	75.98	1.013	3
MPM	70.01	76.11	73.05	0.974	12
KKD	69.44	75.75	72.52	0.967	14
WYD	70.39	79.3	74.74	0.997	9
KNR	70.61	79.6	75	1	8
KSD	73.61	76.55	75.08	1.001	7
KERALA	73.24	76.78	75.00	1	

Source : Estimated by Dr. P. Mohanachandran, Dpt. Of Demography University of Kerala, and Irudaya Rajan of C.D.S, Thiruvananthapuram.

Work participation rate is one of the important indicators of development. There are significant inter district differences in work participation rate in Kerala. It is illustrated in the table 4.45

Table 4. 45

Work Participation Rate District Wise Details, Kerala – 2001

District	WPR	INDEX III	RANK
TPM	32.4	1.003	8
KLM	32.1	0.94	10
PTA	29.7	0.92	12
ALP	34.4	1.07	6
KTM	32.9	1.02	7
IDK	43.3	1.35	1
EKM	36.1	1.12	4
TSR	32.2	.996	9
PKD	36.2	1.121	3
MPM	24.1	0.746	14
KKD	27.9	0.864	13
WYD	39.3	1.22	2
KNR	31.8	0.98	11
KSD	34.7	1.071	5
KERALA	32.3	1	

Source : Woman in Kerala – 2001, Directorate of Economics and Statistics, Govt of Kerala, Thiruvananthapuram.

The picture of WPR shows that Idukki district tops in total work participation rate, followed by Wynad, Eight districts exceeded the state average in 2001. The last two ranks are for the districts in Malabar area. They are Malappuram with 14^{th} rank and Kozhikode with 13^{th} rank.

By combining the individual indicators the composite index of other development indices can be determined. It is illustrated in the table 4.46

Table 4.46

Composite index of other development indices

District	I	II	III	Composite Index (G)	Rank
TPM	1.05	1.04	1.003	1.031	6
KLM	0.95	1.01	0.94	0.968	9
PTA	0.92	1.02	0.92	0.953	11
ALP	1.13	1.008	1.07	1.069	3
KTM	1.12	0.995	1.02	1.045	5
IDK	1.09	0.97	1.35	1.137	2
EKM	1.08	1.011	1.10	1.104	4
TSR	1.1	0.987	0.996	1.007	7
PKD	0.926	1.013	1.121	1.02	8
MPM	0.71	0.974	0.746	0.81	14
KKD	0.93	0.964	0.864	0.92	13
WYD	1.75	0.997	1.22	1.32	1
KNR	0.83	1	0.98	0.937	10
KSD	0.808	1.001	1.071	0.967	10
KERALA	1	1	1	1	-

Source: Compiled from the secondary Data.

In this case Wynad keeps first rank and Malappuram last rank. The index of Malappuram is 0.8 as against 1.324 Wayanad. Malappuram holds the last rank in respect of the composite index of other development indices.

Composite Index of overall Development

The composite indices have been worked out for different districts separately for health care education, women status, agriculture, industry, infrastructure etc. by combining the sectoral composite indices, composite index of overall development of each district is worked out through simple indices method. It is illustrated in the table 4.47

Table 4.47

Overall Composite Development Indices for the Districts in Kerala. (Simple indices method)

District	A	B	C	D	E	F	G	Composite development index	Rank
TPM	1.242	1.007	1.127	1.211	0.928	0.756	1.031	1.043	6
KLM	.772	1.075	1.254	0.971	0.793	1.34	0.967	1.025	7
PTA	1.06	1.353	1.159	1.175	1.118	0.553	0.953	1.053	5
ALP	1.17	.955	1.126	1.181	1.173	1.325	1.069	1.145	3
KTM	1.31	1.364	1.393	1.393	1.246	0.83	1.045	1.226	1
IDK	.99	.976	1.307	1.022	1.06	0.335	1.137	0.975	8
EKM	1.1	1.028	1.078	1.538	1.136	1.395	1.104	1.195	2
TSR	1.01	1.016	1.017	1.034	1.28	1.39	1.027	1.111	4
PKD	.93	.843	0.822	0.823	0.96	0.908	1.02	0.901	13
MPM	.69	0.738	0.636	0.767	0.736	0.522	0.81	0.699	14
KKD	1.03	0.923	0.891	0.997	0.791	0.95	0.92	0.929	12
WYD	1.39	0.957	1.016	0.951	0.908	0.273	1.32	0.974	9
KNR	0.92	0.92	0.901	0.924	0.927	1.175	0.937	0.958	11
KSD	0.83	0.91	0.939	0.894	0.963	1.277	0.967	0.968	10
KERALA	1	1	1	1	1	1	1	1	-

A = Health care

B = Education

C = Status of women

D = Infra structure

E = Agriculture

F = Industry

G = Other Development Indicators

The overall composite indices of development substantiate the Hypothesis that Malappuram is most backward district in this State. It is worth noting that composite index of development of all the districts in Malabar is less

than one, whereas in the case of districts in Travancore – Cochin area it is greater than one except for Idukki. The differences in the values of composite indices of the districts shows the existence of inter-district variations in economic development.

Composite index is also calculated by giving respective weights to the variable selected. The weights are given (see appendices III and IV) by taking the relative share of the respective sectors of each district with that of the State. Details of composite index of overall development by making use of weighted indices method are illustrated in the table 4.48.

Table 4.48

Composite index of overall development (Weighted indices Method)

District	Composite Index	Rank
TPM	1.09	4
KLM	1.004	7
PTA	1.001	8
ALP	1.11	2
KTM	1.109	3
IDK	0.998	9
EKM	1.16	1
TSR	1.068	5
PKD	0.984	12
MPM	0.778	14
KKD	0.994	10
WYD	1.067	6
KNR	0.942	13
KSD	0.992	11
KERALA	-	-

Source: Compiled from the Secondary Data

Weighted in indices method also substantiate the hypothesis that Malappuram is the most backward district in the state. Table 4.49 illustration also establishes the backwardness of Malappuram District.

Table 4.49
Ranking of Districts in Kerala on the basis of selected indicators of development

INDICATOR	FIRST RANK	SECOND RANK	LAST RANK
1. Per capital Income	WYD 34123	EKM 23020	MPM 13782
2. Size of population	MPM 3624640	TPM 3234707	WYD 786627
3. Density of population	ALP 1489	TPM 1476	IDK 252
4. Decadal growth rate of population	MPM 17.22	WYD 17.04	PTA 3.72
5. Work participation rates	IDK 43.3	WYD 39.3	MPM 24.1
6. Employment per lakh of population	IDK 7457	EKM 53.80	MPM 1917
7. Percentage of urban population	KNR 50.46	EKM 47.65	WYD 3.76
8. Complete immunization coverage	ALP 97.3	EKM 93.4	MPM 59.8
9. Hospitals per lakh of population	EKM 0.71	KTM 0.67	MPM 0.19
10. No. of hospital beds per lakh of population	TPM 193	KKD 181	IDK 29.1
11. PHCs/lakh of population	IDK 4.19	PTA 3.96	TPM 2.4
12. Beds in PHc/lakh of population	IDK 36.5	WYD 33.5	KNR 7.3
13. No. of community health centres (CHCs)	WYD 0.76	KSD 0.42	MPM 0.22
14. Beds CHCs/lakh of population	WYD 33.56	KNR 20.27	MPM 8.76
15. Doctors /lakh of population	TPM 15.5	WYD 13.2	MPM 7.96
16. Nurses /lzakh of population	TPM 43.2	KKD 37.8	MPM 12.3
17. Literacy rate	KTM 95.9	PTA 91.49	PKD 84.3
18. No. of schools/lakh of population	PTA 54.82	KNR 49.88	TPM 28.67
19. VHS school/lakh of population	PTA 2.19	KLM 2.01	KNR 0.66
20. Colleges/lakh of population	KTM 1.03	WYD 0.802	MPM 0.35
21. Percentage of school students of population	MPM 22.9	KSD 18.5	IDK 12.7
22. College students/lakh of population	KTM 1736	PTA 1518	KSD 317

23. Women employees/lakh of population	IDK 7746	KSD 5760	MPM 1406
24. Percentage of females in +2 and above	PTA 30.56	KTM 30.03	MPM 7.3
25. SSI units promoted by women/lakh of female population	ALP 400	KLM 395	MPM 87
26. Mean age at Marriage	EKM 23.78	KTM 23.68	MPM 2.49
27. Couple protection rate	KLM 89.2	KTM 86.5	MPM 47.9
28. PWD road/100Sq.Km	ALP 1.3	KTM 101	WYD 24
29. No. of banks per lakh of population	PTA 17.6	EKM 15.36	MPM 5.68
30. No of telephones/lakh of population	PTA 11000	EKM 10600	WYD 3300
31. Population served by one post office	PTA 4123 (1st rank for least value)	IDK 4193	EKM 82.76(last rank for the highest value)
32. Primary sector advances/unit of gross cropped area (Rs.lakhs)	EKM 0.061	KKD 0.057	MPM 0.011
33. Percentage irrigated area to net sown area	TSR 55.2	ALP 40.7	KLM 0.9
34. Per capita production of Egg/year	PTA 100	ALP 92	KNR 14
35. Per capita production of milk/day (ml)	IDK 311	PTA 302	MPM 1.6
36. Percentage of workers in manufacturing	ALP 22.6	KSD 21.1	WYD 3.47
37. Working factories per lakh of population	EKM 96	TSR 88	WYD 18
38. Life expectancy at birth	TPM 77.95	PTA 76.78	KKD 72.52

NUMBER OF RANKS SECURED BY THE DISTRICTS

FIRST RANK		SECOND RANK		LAST RANK	
TPM –4	TSR –1	TPM –2	TSR –1	TPM –2	TSR –0
KLM – 2	PKD –0	KLM – 2	PKD –0	KLM – 1	PKD –1
PTA –7	MPM –3	PTA –5	MPM –0	PTA –1	MPM –19
ALP – 5	KKD –0	ALP – 2	KKD –2	ALP – 0	KKD –1
KTM – 4	WYD –2	KTM – 5	WYD –5	KTM – 0	WYD –6
IDK – 6	KNR –1	IDK – 1	KNR –2	IDK – 3	KNR –3
EKM - 4	KSD -0	EKM – 6	KSD -4	EKM - 1	KSD -1

Source: Compiled from the Secondary Data.

Out of thirty eight indicators listed in the table 4.49 shows that 19 last ranks are recorded by Malappuram District and it is interesting to note that 3 first ranks secured by Malappuram are 1) Size of population 2) Decadal growth rate of population and 3) Percentage of school students to population. It is also noted that Malappuram has got no place in the list of second rank. Above, illustration consistently establishes the fact that Malappuram is the least developed district in Kerala

Statistical Estimation of Variation of Correlation

An analysis of composite index for the different sectors and composite index of overall development indicates the existence of wide inter-district variations in Kerala. Statistical estimation of variation proves that there is high degree of variation in industrial sector followed by social and economic infrastructure. Statistical estimation of standard deviation and Williamson's weighted coefficient of variation is given in the table 4.50

Table 4.50
Standard deviation and Williamson's Weighted Coefficient of Variation (Descriptive statistics)

Sectors	Mean	Std Deviation	Weighted CV
A	1.0780	0.2902	0.32
B	1.0118	0.1710	0.16
C	1.0515	0.1987	0.2
D	1.0669	0.2152	0.24
E	1.0014	0.1716	0.18
F	0.9299	0.3979	0.35
G	1.0255	0.1200	0.10
TOTAL	1.0206	0.1376	0.15

A = Health care
B = education
C = Status of women
D = Infrastructure
E = Agriculture
F = Industry
G = Other Development indicators

An analysis of statistical estimation of trends in inter-district disparity shows that disparity is diminishing in education and increasing industrial sector. It is illustrated in the table 4.51

Table 4.51

Trends in inter –district disparity Coefficient of variation

Year	Education	Industry
1975-76	0.342	0.31
1990-1991	0.32	0.33
1999-2000	0.16	0.35

Table 4.51 shows that the inter district disparity is in the industrial sector is increasing. The coefficient of variation for this indicator was 0.31 in 1975-76. It increased to 0.35 in 1999-2000. The variation in education is diminishing. The coefficient of variation of this indicator has fallen from 42 per cent in 75-76 to 16 percent in 1999-2000. An analysis, by using Karl Pearson correlation coefficient has established a clear and strong association between infrastructure and over all development. It is illustrated in the table 4.52

Table 4.52

Correlation coefficient

Sectors	A	B	C	D	E	F	G	Total
A	1.000	0.314	0.384	0.509	0.254	-0.243	0.490	0.566*
B	0.314	1.000	0.757**	0.694**	0.564*	-0.015	0.115	0.703**
C	0.384	0.757**	1.000	0.652*	0.542*	-0.014	0.417	0.754**
D	0.509	0.694**	0.652*	1.000	0.643*	0.185	0.291	0.868**
E	0.254	0.564*	0.542*	0.643*	1.000	0.244	0.344	0.759**
F	-0.243	-0.015	-0.014	0.185	0.244	1.000	-0.263	0.388
G	0.490	0.115	0.417	0.291	0.344	-0.263	1.000	0.395
TOTAL	0.566*	0.703**	0.754*	0.868**	0.759**	0.388	0.395	1.00

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level.

Table 4.52 establishes high correlation between infrastructure and over all development. Next to infrastructure agriculture is important sector influencing economic development in Kerala. In this contest it should be noted that Malappuram has recorded the last rank in social infrastructure (Health care and education). This analysis proves the third hypothesis that the backwardness of the district is associated with the low level of infrastructure

Chapter 5

INTER DISTRICT VARIATIONS IN THE DISTRIBUTION OF PLAN FUNDS

CHAPTER 5

INTER DISTRICT VARIATIONS IN THE DISTRIBUTION OF PLAN FUNDS

There was no deliberate effort by the government to eliminate the backwardness of the under developed districts in the State. It is reflected in the distribution of plan funds among the districts in Kerala. There is injustice in the allocation of plan funds. It is illustrated through the balance quotient. Balance quotient is calculated by deducting percentage of the district to total population of the state from percentage distribution of funds to the district. If the balance quotient is zero there is a balance in the distribution of plan funds. If the value is greater than zero the distribution of funds is favourable for the district. If it is negative there is injustice in the distribution of funds. The details of distribution of plan funds in Kerala are illustrated in the table5.1.

Table 5.1

State Plan Funds Allocated- District wise break-up

district	Plan funds distribution Percentage			Population percentage	Balance quotient 95-96
	1984-85	1987-88	1995-96		
TPM	9.4	10.2	10.4	10.16	+0.24
KLM	16.7	16.9	5.9	8.12	-2.22
PTA	5.2	9	4.6	3.87	+0.73
ALP	5	7.1	4.4	6.61	-2.21
KTM	3.6	4.6	5.1	6.13	-1.03
IDK	13.8	11.9	9.6	3.55	+6.05
EKM	10.2	8.9	27.5	9.73	+17.7
TSR	7.5	7.6	7.9	9.34	-1.44
PKD	7.52	5.2	4.7	8.22	-3.52
MPM	4.5	4.4	4	11.4	-7.4
KKD	6.2	5.2	6.8	9.04	-2.24
WYD	2.3	2.4	3	2.47	+0.53
KNR	7.8	2.3	4.2	7.58	-3.38
KSD	-	100	1.8	3.78	-1.98
KERALA	100		100	100	0

Source: Computed from, Annual Plan 1984-85, 1987-68, 1995-96, District-Wise Break-Down of Funds, State Planning Board, Government of Kerala Thiruvananthapuram.

Table 5.1 shows that there exists wide variations in the distribution of state plan funds among the districts in Kerala. The analysis shows that the balance quotient of all the districts in Malabar except Wynad is negative. But in Travancore-Cochin area the balance quotient of four district out of eight are positive. Malappuram has got the highest negative value of balance quotient. It is noted that Malappuram is getting only less than 5 per cent of the state plan funds and it is very below the population percentage of district.

Distribution of centrally sponsored plan funds also show great in equality in allocation. It is illustrated table 5.2

Table 5.2

Plan funds allocated (Centrally sponsored schemes) District-wise breakdown

District	Plan funds distribution Percentage			Population percentage	Balance quotient
	1984-85	1987-88	1995-96		
TPM	15.1	11.8	10.9	10.16	+0.74
KLM	8.5	8.9	6.4	8.12	-1.72
PTA	5	4.4	3.5	3.87	-0.37
ALP	8.5	6.8	5.4	6.61	-1.21
KTM	4.56	5.9	4.6	6.13	-1.53
IDK	3.5	4.6	9.9	3.55	+6.35
EKM	6.66	9.5	15.1	9.73	+5.37
TSR	10.7	10	7.8	9.34	-1.54
PKD	11	4.1	8.1	8.22	-0.12
MPM	9.3	7.7	5.5	11.4	-5.9
KKD	5.8	7.1	6.6	9.04	-2.44
WYD	3.7	3.5	6	2.47	+3.53
KNR	6.9	6.6	6.5	7.58	-1.08
KSD	-	3.8	3.6	3.78	-0.18
KERALA	100	100	100	100	0

Source: Computed from Annual Plan 1984-85, 1987-68, 1995-96, District-Wise Break-Down of Funds, State Planning Board, Government of Kerala, Thiruvananthapuram.

Table 5.2 reveals that Malappuram is the worst affected district in the distribution of centrally sponsored plan funds. Balance quotient for Malappuram is -5.9 where as it is 6.35 for Idukki and 5.37 for Ernakulam.

An analysis of composite index of over all development and percentage allocation of state plan funds to the district in Kerala shows the developed districts of Travancore Cochin area are getting the major share of plan funds. It is illustrated in the table5.3.

Table 5.3

Plan fund allocation and composite index – a comparison

District	Allocation of plan funds %	Composite index
TPM	10.4	1.043
KLM	5.9	1.025
PTA	4.6	1.053
ALP	4.4	1.145
KTM	5.1	1.226
IDK	9.6	0.975
EKM	27.5	1.195
TSR	7.9	1.111
PKD	4.7	0.901
MPM	4	0.699
KKD	6.8	0.929
WYD	3	0.974
KNR	4.2	0.958
KSD	1.8	0.96
KERALA	100	-
MALABAR	24.5	5.42
TRAVANCORE COCHIN	75.5	8.773

Source: Compiled from the Secondary Data

The table 5.3 shows that the composite indices of over all development of the all the districts in Malabar are less than one where as the indices of districts in Travancore-Cochin area are greater than one with an

exemption of Idukki. But the districts in Malabar getting only about 25per cent of the state plan outlay where as the developed districts (districts of Travancore Cochin area) are getting about 75per cent of the state plan outlay funds. The planning process followed in Kerala has not helped in distributing the benefits of development equitably among the districts in Kerala. For bringing equality and balance regional growth, plan fund would have been distributed in such a way that the backward districts get relatively larger share of state plan funds compared to developed districts.

Formula for the distribution of plan funds

The present system of allocation of state plan out lay to the districts in Kerala is against the objective of balanced growth and equity. Hence an attempt is made to evolve a formula for the distribution of funds among the districts in Kerala on the basis of composite index of over all growth, such that the backward districts get relatively larger share of outlay compared to developed districts. Inverse values of composite indices are worked out and the percentage shares of the districts are determined. This will ensure larger share for the districts having low level of composite index value and lower share for the district having higher values of composite index. Then each district will get a percentage share as shown in the table 5.4.

Table 5.4

Formula for the Distribution of Plan Funds on the Basis of Composite Index

District	Composite index	Inverse value of composite index	Percentage share of the district in the plan fund
TPM	1.043	0.96	6.8
KLM	1.025	0.98	7
PTA	1.053	0.95	6.7
ALP	1.145	0.87	6.2
KTM	1.226	0.82	5.8
IDK	0.975	1.02	7.3
EKM	1.195	0.84	6
TSR	1.111	0.9	6.41
PKD	0.901	0.11	7.9
MPM	0.699	1.43	10.2
KKD	0.929	1.08	7.7
WYD	0.974	1.02	7.25
KNR	0.958	1.04	7.4
KSD	0.968	1.03	7.33
KERALA		14.05	100

Source: Compiled from Secondary Data.

As per this formula Malappuram has to get more than 10per cent of the state plan outlay. But the share of Malappuram the total state plan outlay was not more than 5per cent. All the districts in Malabar are liable to get more than 7per cent of the plan funds, but these districts are getting only below 7 per cent.

An alternative formula to distribute plan fund is to find out the share of districts on the basis of inverse value of composite index weighted with the population percentage of the respective district. It is illustrated in the table 5.5

Table 5.5

Formula for the distribution of plan funds – weighted composite index method

District	1	2	3	4
	Inverse of composite index	Population percentage	Weighted index 1 x 2	Percentage share of plan funds
TPM	0.96	10.16	9.75	9.5
KLM	0.98	8.12	7.98	7.8
PTA	0.95	3.87	3.68	3.6
ALP	0.87	6.61	5.75	5.6
KTM	0.82	6.13	5.03	4.9
IDK	1.02	3.55	3.62	3.6
EKM	0.84	9.73	8.17	8.3
TSR	0.9	9.34	8.41	8.2
PKD	0.11	8.22	9.12	9
MPM	1.43	11.4	16.3	16
KKD	1.08	9.04	9.76	9.6
WYD	1.02	2.47	2.52	2.5
KNR	1.04	7.58	7.88	7.6
KSD	1.03	3.78	3.89	3.8
KERALA	14.05	100	101.86	100

Source: Compiled from the Secondary Data.

As per this formula Malappuram must get 16 per cent of plan outlay followed by Kozhikode 9.6 percent and Thiruvananthapuram 9.5 percent. Lowest share is for Wynad (2.5 percent). It is noted that the share of Wynad is greater than its population share. Moreover Wynad is a district having highest per capita income in the State.

Chapter 6

CONCLUSIONS

CHAPTER 6
CONCLUSIONS

The present study was conducted to asses the inter district variations in the economic development and to identify the development status of Malappuram District.

The study proves that there exists inter district disparities in Kerala in economic development measured in terms of different indices used for analysis.

Statistical estimation of variation proves that there is high degree of variation in industrial sector followed by social and economic infrastructure. Coefficient of standard deviation and Williamsons weighted coefficient of variation establish this fact. Hauser's index of Relative Growth also reveals this fact and shows the upper and lower range of variation is = 42 and –31.75.

The composite index of industrial development shows that Malappuram is the one of the backward the districts in Kerala. The highest composite index of industrial development for the district (Ernakulam) is 1.395 and the index of Malappuram is only 0.522. The index of Ernakulam is more than three times greater than that of Malappuram. The index of the State is one and it is nearly twice of the index of industrial development of Malappuram. This shows that Malappuram District is very poor in Industrial Development.

It is true that considerable level of disparities continue to exist in the State. It is discouraging to find that the extent of inter district disparity in industrial indicator is increasing. The coefficient of variation for this indicator was 0.31 in 1975-76. It increased to 0.33 in 1990-91 and further to 0.35 in 1999-2000. However, it is hopeful to see that inter district disparity in education is diminishing. Coefficient of variation of this indicator has fallen from 34.2 Per cent in 75-76 to 16 per cent in 1999-2000.

Thus the analysis validates the hypothesis that there exists inter district variations in economic development in Kerala.

Even 33 years after its formation, Malappuram district continues to be a backward district in all respects. Ranking of the district on the basis of the overall development indicators shows that Malappuram is the least developed district in Kerala. In the case of almost all indicators of development Malappuram is lagging behind all other districts. This analysis substantiates the other hypothesis that Malappuram is the least developed district in Kerala.

For calculating composite index both simple indices method and weighted indices method are used. The analysis shows that the values of most of the indices of the districts in Malabar are less than the state average. That is, with the exception of Wayanad all backward districts are located in Malabar. It is illustrated in the table 6.1

Table 6.1
Composite Index of overall development
(A comparison of two methods)

District	Simple indices method		Weighted indices method	
	Index	Rank	Index	Rank
TPM	1.043	6	1.09	4
KLM	1.025	7	1.004	7
PTA	1.053	5	1.001	8
ALP	1.145	3	1.11	2
KTM	1.226	1	1.109	3
IDK	0.975	8	0.998	9
EKM	1.195	2	1.16	1
TSR	1.111	4	1.068	5
PKD	0.901	13	0.984	12
MPM	0 699	14	0.778	14
KKD	0.929	12	0.994	10
WYD	0.974	9	1.067	6
KNR	0.958	11	0.942	13
KSD	0.968	10	0.992	11

Source: compiled from the Secondary Data.

It is worth noting that even in social sector Malappuram district (and the districts in Malabar) remains (or remain) relatively backward. This contradicts the claim of the authorities about the development of Malappuram District in particular and the districts in Malabar in general.

Even three decades after the formation of the district, industrial sector has not acquired a position of eminence in the district. The per capita contributions that industries make is miserably as low as Rs.950/- a year as against Rs.2112/- for the State.

An interesting finding of the study is that the labour and capital productivity are relatively high in Malappuram District. But this has not been really exploited. This is revealed by the fact that per capita investment in the district in SSI units is one of the lowest in Kerala. This is responsible for the lower contribution of manufacture to net domestic product of the district. This calls for appropriate policy interventions.

Significantly, this analysis, by using Karl Pearson correlation coefficient, has established a clear and strong association between infrastructure and overall development. Next to infrastructure agriculture is the important sector influencing overall economic development. In this context it should be noted that Malappuram has recorded the last rank in social infrastructure like Education, Health care and economic infrastructure.

Thus the analysis validates the hypothesis that the backwardness is associated with the low level of infrastructure.

The study shows that a shift is taking place from the primary to tertiary sector overtaking the secondary sector. This proves that the sectoral hypothesis is valid in the analysis. A trend some what disturbing is that the declining growth in the commodity sector i.e. primary plus secondary and faster

growth in the non-commodity sector i.e. service sector. This means that structural changes occurring in the district economy are not in the right direction.

Malappuram district is exhibiting the pattern of work participation rates as in most backward countries of Asia like Pakistan and Bangladesh. In 2001, the female work participation rate is as low as 6.6 percent as against 15.3 for the State.

Another important finding of the study is that the distribution of plan funds among the districts in Kerala is not equitable. That is government policy has not helped in allocating benefit of development equitably among different districts. The present system of distribution of plan funds to the districts in Kerala is against the objective of balanced growth. (cf table 5.2 and 5.3)

Suggestions

1. Developmental efforts has to be intensified in the backward districts of Kerala
2. Strengthen the industrial base of Northern Kerala
3. State plan fund has to be distributed on the basis of index of development in such a way that backward districts must get larger share of plan funds
4. In the location of State projects, the prime consideration should be the backwardness of the area
5. Growth of commodity sector should be given higher priority
6. Give more grants in aid to the local self governments of backward districts.

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