

**APPROACH TO INDUSTRIALISATION OF KERALA:
A STUDY WITH SPECIAL REFERENCE TO THE
REGIONAL CHARACTERISTICS OF THE STATE**

THESIS

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By

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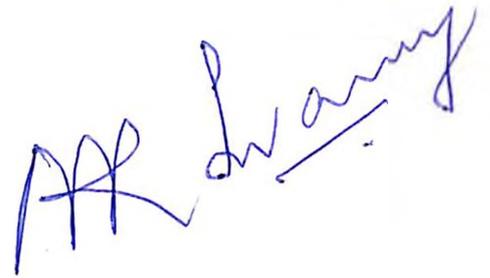
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CERTIFICATE

This is to certify that the thesis entitled APPROACH TO INDUSTRIALISATION OF KERALA : A STUDY WITH SPECIAL REFERENCE TO THE REGIONAL CHARACTERISTICS OF THE STATE, and submitted by A.M.SHERIF ID.No.93 PHXF 002 for award of Ph.D. Degree of the Institute, embodies original work done by him under my supervision.



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ABBREVIATIONS

ACGR	-	Annual Compound Growth Rate
CMIE	-	Centre for Monitoring of Indian Economy
CPSU	-	Central Public Sector Undertakings
CSO	-	Central Statistical Organisation
DIC	-	District Industries Centre
EAP	-	Entrepreneurship Awareness Programmes
EDP	-	Entrepreneurship Development Programme
EWYL	-	Earn While You Learn
FDI	-	Foreign Direct Investment
ICICI	-	Industrial Credit and Investment Corporation of India Ltd.
IDBI	-	Industrial Development Bank of India
IEM	-	Industrial Entrepreneurial Memoranda
IFCI	-	Industrial Finance Corporation of India Ltd.
KITCO	-	Kerala Industrial and Technical Consultancy Organisation Ltd.
KSIDC	-	Kerala State Industrial Development Corporation Ltd.
NCAER	-	National Council of Applied Economic Research
NRE	-	Non - Resident External
NRI	-	Non - Resident Indian
NRK	-	Non - Resident Keralite
OECD	-	Organisation for Economic Co-operation and Development
SDP	-	State Domestic Product
SFC	-	State Financial Corporation
SIDBI	-	Small Industries Development Bank of India
SIDC	-	State Industrial Development Corporation
SLPE	-	State Level Public Enterprise
SSI	-	Small-Scale Industry
TCO	-	Technical Consultancy Organisation
TECSOK	-	Technical Consultancy Services Organisation of Karnataka
TFCI	-	Tourism Finance Corporation of India Ltd.

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Chapter 1

INTRODUCTION

1.1 Background of the study

Development anywhere in the world is almost synonymous with 'economic growth'. But, the tiny strip of land in the south-west coast of India, which is the State of Kerala, has shown a paradoxical development which is now internationally known as the 'Kerala Model of Development'. This state which has a per-capita income lower than the national average has a per-capita consumption higher than all-India average.¹ But, in spite of relatively low levels of per capita income Kerala has achieved remarkable improvement in quality of life. This state has the highest effective literacy rate (89.81%), low birth rate (19.8 per thousand), lowest death rate (5.8 per thousand) and low infant mortality rate (17 per thousand) among all the states in the country². Thus, the Physical Quality of Life Index (PQLI) of Kerala (70) is found to be much higher than the all-India average. Out of the 12 states studied by Morris and McAlpin with 1971 data, Punjab, which was the richest state in India then, came next to Kerala with a significantly lower PQLI of 50 only³. Adiseshaiah (1989) held the view that "the economy of Kerala is one model and

object lesson - an economy which operates at a low economic level, but which ensures a high quality of life to its people"⁴. Franke and Barbara Chasin (1990) described Kerala's experience as an example for 'development without growth'.⁵ In short, Kerala seemed to attract the attention of economists due to its paradoxical development experience of having achieved high physical quality of life with poor economic performance. The contradictions that have emerged in the development process in Kerala have already been well connected to the over-emphasis on social development and stagnation in the growth of the productive sectors of the economy, particularly the manufacturing sector. Therefore, industrial backwardness of Kerala was a topic of animated discussion in academic as well as official circles. Despite its apparent lushness and prosperity, Kerala is far behind even all its neighbouring states as far as industrial performance is concerned. The share of manufacture in the state domestic product (SDP), annual growth and value addition in the manufacturing sector, etc. are considerably low. It may be surprising to note that, in the 1950s, the per capita manufacturing product in the erstwhile Travancore was higher (Rs.48) than the all-India figure (Rs.37).⁶ Much later, during the seventh plan period, while the Indian industry grew by about 8.5 per cent, Kerala's figure declined from 4.04 per cent in the seventies to 1.22 per cent in the eighties. But, paradoxically, by this time Kerala had already achieved a PQLI level targeted for achievement by the

country by 2000 AD. Obviously, the highly impressive social development was the natural consequence of the welfare oriented strategies of development followed by the governments in power with much emphasis on education and health. In fact, this approach was a legacy brought forward from the pre-independence period. This pattern of development emphasising more on human development and social consumption and less on commodity production was possible largely because of the 'money order' economy⁷ enjoyed by this region since more than half a century. Now, a stage has come whereby it is impossible to sustain this high quality of life without improving the economic performance. Majority of the raw materials available in the state continue to flow out to other states only to be returned as finished goods. Though Kerala shares only 3.5 per cent of the country's total population, about 16 per cent of the unemployed youth in the country are from this small state, needless to mention about the severe under-employment faced by the educated and the highly qualified.⁸ Thus, Kerala would, perhaps, be the poorest geographical area in the world with the highest PQLI.

1.2 Statement of the problem

With the liberalisation of the Industrial policy, industries will be set up primarily on the basis of economic advantages. Ideally speaking, availability of raw materials, infrastructural facilities, power, labour, etc. and logistical advantages of the location are the primary criteria for setting up

industries. Notwithstanding the fact that, in the earlier years, Kerala was in a better position with regard to many of these factors, this state had missed the boat once when the rest of the country went ahead with rapid industrialisation. Now, in a liberalised economy, it is quite likely that this state would again miss another opportunity unless the society at large (which includes the government machinery also) gears up to the situation. But, if it happens this time, the disparity in the economic condition of this state in comparison to the rest of the country will be an appalling one. The locational decisions guided by the present market forces may have a tendency towards aggravating the spatial concentration of industrial activities, mostly due to the benefits of agglomeration. This will increase the disparity in development across the regions in the country. Therefore, the situation necessitates independent and deliberate efforts for accelerating the growth of industrial investments in the respective regions. The increasing competition between various states in offering incentives and concessions for attracting industrial investments and their new developmental approaches indicate the growing importance of regional economic policy strategies. In a country with so much of regional diversities, it is sometimes astonishing to find that many of the developmental models are formulated at the national level with generalised approach which are, more often than not, incapable of absorbing the regional characteristics. Now, when the Indian economy has been rapidly liberalised

leaving the country almost open to globalisation, it is imperative to understand Kerala's peculiar problems with a view to tackle them more effectively rather than repeatedly resorting to trial and error methods with generalised national level models of industrial development.

1.3 Earlier Studies on related topics

Since about a decade or so industrial backwardness in Kerala was a topic of live discussion in academic as well as official circles. A few hypotheses were also put forward to explain the causes of industrial backwardness. Much earlier, the National Council for Applied Economic Research (N.C.A.E.R) (1962) had identified the following factors as the causes for the slow growth and backwardness of industries.⁹ First, predominance of technologically backward small-scale units which created a meagre reinvestible surplus and did not lead to entrepreneurial talents. Second, unstable policies in the state which had scared the prospective industrialists away from the state. And finally, the absence of basic minerals especially metallic minerals.

During the 1980s, a few hypotheses emphasising the role of labour were formulated. Based on a study of the migration of small-scale entrepreneurs from Kerala to Tamil Nadu and Karnataka, M.A.Oommen (1981) had put forward his labour disturbance hypothesis which said that labour cost defined not only in terms of wage and welfare cost but inclusive of

the loss and inconveniences due to strikes and disputes appears to be an important reason for the exodus of Keralite entrepreneurs to other neighbouring states.¹⁰

In the popular perception within and outside the state, the most important reason for the stagnation in the industrial sector is related to the labour militancy in Kerala. A high level committee of the State Planning Board reported that :

while employment generation has been low due to low investment and low rate of growth, especially in industry, trade union movements backed by political parties' organised agitations had successfully pushed up the wages and the other emoluments of the labour employed in the organised sector. For many years, labour agitations in the state and the situations created in the industries as a result of such agitations, was cited as one of the main reasons why industries both from within and outside the state were shy to invest in the state.¹¹

Subrahmanian and Pillai (1986) questioned the validity of this wage-cost hypothesis . They concluded that wages, in relation to productivity, had been relatively lower in most industries in Kerala. They had put forward an hypothesis stating that Kerala's industrial backwardness and the divergence of its growth rates with the national pattern may be due to its lopsided industrial structure.¹²

Thampy (1990), on the other hand, argued that the wage-cost hypothesis holds good at least in the case of a large number of industrial groups in Kerala's small-scale sector.¹³ He had concluded that the industrial system in this region is characterised by lower labour productivity and higher wages as compared to all-India. Thus, the general notion that higher labour costs are inhibiting the growth of industries in Kerala is stated as to be true at least in the case of a majority of industry groups in the small sector. He also argued that this is only a partial explanation to the problem as high wage costs and psychic costs have compounded with other factors to retard the industrial development, especially in the small-scale sector of the state.

Alice Albin (1990), comparing Kerala's industrialisation with that of the other southern states - Andhra Pradesh, Tamil Nadu and Karnataka-questioned the validity of the structural hypothesis.¹⁴ After examining the structural and regional factors, she argued that the regional factors have, to a great extent, retarded the growth of small units in Kerala. While she arrived at this conclusion mostly using the data culled from SDP estimates of Central Statistical Organisation, Annual Survey of Industries Report, etc., detailing of the region-specific characteristics and probable means of circumventing the impediments have not been attempted.

Given above is only the gist of the major studies relevant to the present research. Observations made with regard to the

other literatures surveyed have been indicated in the appropriate contexts in the subsequent chapters.

1.4 Objectives of the research

Industrial backwardness of Kerala shall be considered as a macro-level problem which cannot be explained in terms of a few factors taken in isolation. This study assumes that a variety of economic, socio-political, and regional factors, along with the developmental approach have to be studied simultaneously. The present study, therefore, is *exploratory* in nature. In this background and also considering the scope and coverage of the earlier studies done on related topics, the following objectives have been set for the present research with a view to study the problem of industrialisation of Kerala in a more holistic manner.

Overall objective

The overall objective of the research is to critically study the approach towards industrialisation of Kerala with a view to evolve a region-specific developmental approach

Specific objectives

- (i) To critically study the industrial scenario in Kerala with focus on the performance of the small-sector.
- (ii) To critically evaluate the earlier approach towards industrial development in the region.
- (iii) To study the specific regional characteristics of the state with a view to identify the critical factors that would influence the industrialisation of this region and

also to identify the thrust areas for development.

- (iv) To evolve a holistic approach to the industrialisation of Kerala considering the regional problems and prospects.

Particular arguments pursued with a view to explore this macro-level problem to meet the aforesaid objectives are stated below.

- (i) The stagnation in the manufacturing sector in Kerala is mostly due to the predominance of enterprises with low investment, uneconomic operational features of the production units, weak inter-industry linkages, and a low profile activity in the small sector.
- (ii) The weak industrial base is attributable to the nature of the earlier developmental process, absence of sufficient incubator organisations in the medium and large sectors to spawn small enterprises, and a variety of social and region-specific factors.
- (iii) Apparently, the welfare oriented development approach emphasising on education has not nurtured entrepreneurial qualities and also has not contributed much in directing the human resources to the productive sectors of the economy.

1.5 Hypotheses

As an extension of the exploratory study, a few hypotheses as given below were also formulated.

- (i) A large number of small-scale industrial units in Kerala may be operating with low capacity utilisation due to shortage of working capital and poor demand from the local market.
- (ii) The flow of bank finance to the relatively smaller units in Kerala may be poor.
- (iii) With regard to the setting up of manufacturing units, especially large units, Kerala may not figure as an attractive industrial destination.
- (iv) Though the statistics with regard to the organised industrial sector show an overall improvement in the labour scene in Kerala, the past bitter experiences might continue to influence the perception of the entrepreneurs.

1.6 Design of the study

The topic of research demanded analysis of a good amount of macro level aspects apart from the micro level data pertaining to the industrial units. Secondary data was highly useful in doing historical analysis of the process of industrial development in Kerala. Primary data collection was mostly confined to the Small-Scale Industrial (SSI) Sector.

Sampling Design

For primary data collection, the entire population of small-scale industrial units registered with the District Indus-

tries Centres numbering to about 83463 as at the end of March, 1992 was selected as the *universe*. Accordingly, the list of industrial units registered with the various District Industries Centres in the state was chosen as the *sampling frame*. Based on this source list a stratified sampling was adopted according to the existing distribution of number of units under various broad industry-groups. For this purpose, 15 major industry-groups were identified as the most common type of classification used among the 14 District Industries Centres. The detailed picture with regard to the sampling design are given in Chapter - 3 wherein the findings of the surveys conducted as part of the research work have been presented. The sampling design and other details with regard to the surveys conducted among potential entrepreneurs and also among Non-resident Keralites are detailed in Chapters 4 and 5 respectively.

Units covered

For a satisfactory sample enquiry, an accurate census of the universe is the most essential requirement. As the registration of small-scale industries is not mandatory, many small industrial units were found to be operating without registration. It was practically difficult to gather information pertaining to the total number of such unregistered units. Therefore, as stated above, the survey among industrial units was confined to those small industries which were registered with the District Industries Centres.

Area covered

The study covered data collection from the aforementioned industrial units operating in different districts which were selected at random from the source lists provided by the District Industries Centres. For comparative purposes a quick survey was conducted in two industrial estates in Bangalore with a view to gather details about the entrepreneurial background.

Period of survey

While the entire field survey was spread over a period of about two years, the primary survey among the SSI units alone was conducted over a period of about 8 months.

1.7 Sources and methods of data collection

As stated earlier, this topic of research demanded collection of both primary and secondary data with almost equal importance.

Primary data collection

The primary data collection was done among the SSI units selected as per the sampling design stated above. The survey covered data collection with regard to the structural features, performance in terms of capacity utilisation and other quick measures, and the problems faced in the SSI sector. Data relating to the background of the entrepreneurs

were also collected. At the same time, surveys among potential entrepreneurs (participants of Entrepreneurship Development Programmes) and a few Non-resident Keralites and Bangalore based entrepreneurs were also done. The detailed methodology of these surveys conducted and the findings are given as a separate chapter titled 'A Focus on the Small-Scale Sector'. However, for a preliminary idea, the methodology adopted is given in brief below.

Structured interview and other methods

The survey among SSI units and entrepreneurs was carried out through structured interviews using two separate Interview Schedules (Appendices 1 and 2). Data with regard to the entrepreneurial background of the promoters of SSI units situated in two industrial estates in Bangalore, were collected through personal interviews as well as through mailed questionnaires (Appendix 2).

The survey among potential entrepreneurs was conducted by distributing questionnaires (Appendix 3) while they were undergoing Entrepreneurship Development Programmes in different parts of Kerala. Through a similar exercise, a quick survey was conducted among a small number of 48 Non-resident Keralites using a structured questionnaire (Appendix 4). A survey among a few entrepreneurs was also conducted to elicit their perception about Kerala as an industrial destination on the basis of a few critical factors and in comparison to the

three other southern states. Further details with regard to the primary data collection are given in Chapter 3.

Observation and unstructured interviews

Visits were undertaken to industrial estates in Bangalore in Karnataka and Tirupur and Hosur in Tamil Nadu to gather preliminary idea about the nature of industrial activities in those regions, through observations and unstructured interviews.

Senior officials of the Directorate of Industries and Commerce of Kerala and Karnataka and, Technical Consultancy Organisations of Kerala (KITCO) and Karnataka (TECSOK) were interviewed to gather details with regard to the problems and prospects of industrial development in the respective regions. The Executive Director of Tirupur Exporters' Association, Senior Managers of Ashok Leyland Ltd. and Titan Watches Ltd. at Hosur were interviewed with a view to gather their experiences in setting up industries in a typical backward area like Hosur. Detailed observation with regard to the functioning of Titan Watches Ltd. was done considering their peculiar personnel hiring practices.

Secondary data

The sources of secondary data consisted of published books statistical reports, journals, etc. and unpublished materials available with various departments and agencies. The pub-

lished documents to which references have been made are indicated under 'Notes and References' in the respective chapters and also in the Bibliography given towards the end of the thesis report. The departments and other organisations from where secondary data were collected through interviews and from unpublished official records are :

- (a) The Directorate of Industries and Commerce, Trivandrum.
- (b) District Industries Centres.
- (c) Department of Economics and Statistics, Trivandrum.
- (d) Kerala State Planning Board, Trivandrum.
- (e) Directorate of Coir Development, Trivandrum.
- (f) Coconut Development Board, Cochin .
- (g) Kerala State Industrial Development Corporation Ltd., Trivandrum.
- (h) Kerala Industrial and Technical Consultancy Organisation Ltd., Cochin
- (i) Bureau of Public Enterprises, Trivandrum.
- (j) State Level Bankers Committee, Trivandrum.
- (k) Kerala Financial Corporation, Trivandrum.
- (l) Kerala Small Industries Development Corporation Ltd., Trivandrum

Detailed content analysis of some of the relevant reports of the Task Forces formed in connection with the formulation of

the Eighth Five Year Plan was also done. These have, however, been quoted in the appropriate places in the body of the report.

Construction of tools and pre-test

For the purpose of the primary survey conducted among SSI units and entrepreneurs behind the units separate interview schedules were prepared. These were initially tested in about 15 SSI units in Trivandrum district by conducting a pilot study and suitable modifications were made. The questionnaire used for the survey among potential entrepreneurs were initially pre-tested among a batch of Entrepreneurship Development Programme (EDP) participants and suitable modifications were made. Similarly, the questionnaire used for collecting data for perceptual analysis was also pre-tested on 4 entrepreneurs. However, due to practical difficulties in obtaining another gathering of Non-resident Keralites (NRK), the questionnaire which was used to do a quick survey among them was pre-tested only on three known NRKs.

1.8 Data analysis pattern

Data collected - both primary and secondary - were processed, tabulated and analysed by employing various mathematical tools such as averages, percentages, ratios, etc. and usual statistical tools using standard SPSS computer package. In order to draw a holistic picture with regard to the problems

associated with the industrialisation of Kerala and also to evolve solutions through a multi-pronged approach, the popular Management diagnostic technique of *Cause and Effect* diagrams have been employed.

1.9 Scheme of the Report

Reporting is done in the following manner :

Chapter One : Introduction

Chapter Two : Industrial Scenario in Kerala - An Overview

Chapter Three : A Focus on the Small-Scale Sector

Chapter Four : Analysis of the Early Development Process

Chapter Five : Analysis of Regional Characteristics

Chapter Six : A Holistic Approach to the Industrialisation of Kerala.

Chapter Seven : Summary of Findings and Recommendations

1.10 Limitations of the present study

The study suffers from the following limitations :

1. As far as the primary survey findings were concerned, the study has the limitation of attempting to throw light on the general character of the SSI units through a limited sample coverage due to various resource constraints.

2. Accuracy of data suffers on account of the fact that in the SSI units, the owners or managers were not maintaining proper records with regard to various performance indicators. Wherever such properly recorded information was absent, data provided orally had to be resorted to. However, no effort was spared to check and cross check such data by raising questions from different angles.

3. Since the topic of research was addressing a macro level problem, some of the minute details with regard to the various aspects considered for the study had to be excluded from the report with a view to emphasise on a multi-pronged and holistic approach. On the other hand, the multi-pronged approach necessitated analyses from different angles and on a wide variety of aspects as it was felt that one or two reasons in isolation cannot be considered responsible for the industrial backwardness of Kerala.

1.11 Some theoretical considerations for the study

Many reasons are advanced to account for the under-development of different regions in the world. Logically it should be considered that all countries and, regions within those countries were once in a condition of under-development. Given the fact that deliberate human intervention, most often with little concern for the natural course of action, which have taken place in certain regions out of the peoples'

energy, invention and determination, have paced these regions further and further ahead of the majority who have been slow and unambitious. Therefore, as of now, the disturbing feature for many newly developing countries is that the pace of progress of those few leading countries is accelerating rapidly, most often in a geometric progression. Thus, the rich continues to become richer and the poor relatively poorer. The effect is that of a rolling snow ball which picks up much more snow than the tiny one just beginning to roll. This multiplier effect which becomes more and more evident as development gets underway is an integral factor to be invoked in economic plans for development.¹⁵ Cumulative growth, even at apparently slow rates over the years can have astonishing results. The differing rates of growth between regions even within a vast country like India over a period of time is of great consequence. Kerala is, in fact, in such a predicament, almost remaining at the cross-roads of economic development, while the rest of the country is forging ahead in economic terms. In this context, it will be useful from the point of view of the research topic to take stock of the usual theoretical considerations with regard to the development of a region, especially in terms of developing the manufacturing sector. In order to avoid a digression from the analyses done specifically for this thesis work and also to maintain the focus on the main issues, only the gist of the theoretical considerations have been described here.

1.11.1 Economic Development

A growing body of economic theory supports the view that economic development is not an inevitable process but must be created and energetically advanced. This may be done by a variety of co-ordinated measures designed to interrupt the free play of social and economic forces. By planned measures of investment, innovation, stimulation, developmental supports and controls, aggressive policies of economic development are pursued with the objective of overcoming the stagnation of many underdeveloped regions. The recent thinking, therefore, is that economic development can be induced or even imposed, the means of it being determined by governments in power. Though this broad theory of development is widely accepted, it is in the nature of application that differences emerge. Most of the rich countries of the world are highly industrialised, and there might seem a case for rapid industrialisation in under-developed lands as a short cut to a better standard of living. This need not be true all the time. Most Western economists favour what has come to be called 'balanced growth' which emphasises on the interdependence of the various sectors within an economy. Briefly, agriculture is made more efficient, allowing output per worker to rise, freeing some to move into manufacturing, power, transport and other non-agricultural pursuits.¹⁶ The greater productivity and increasing purchasing power allows imports and expands the home market for newly manufactured

goods. In short, there is an all-round expansion, and an upward spiral is created. If these views are accepted it will be seen that concentration on manufacturing industry offers no short-cut to prosperity.

The three sectors of an economy

Colin Clark (1951) in his book *The Conditions of Economic Progress* makes a now widely accepted simple division of production into primary, secondary and tertiary groups.¹⁷ The *primary* activities includes farming, fishing and forestry; *secondary* production includes mining, manufacturing and public utilities such as gas and electricity production, and *tertiary* production includes all other activities, such as transport, distribution, public administration, entertainment, etc.

From the beginning of time, primary activities have been basic to man's existence, and development signifies a movement whereby primary activities continue but with increasing efficiency so that labour is released for other work involving more application of science, invention and capital. Colin Clark had noted that as aggregate growth proceeds the share of output and employment in agriculture falls while the share of output and employment in industry rises. Later Simon Kuznets (1966) refined this observation by stating that as income per head rose, the contribution of agriculture to total output declined in a predictable way, while the contri-

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bution of services remained roughly constant and the contribution of manufacturing rose.¹⁸

Thus, the structure of labour force in an economy undergoes considerable changes during economic development over a period and this has several implications. Economic development entails changes in the composition of labour force, usually industrial sector. The typology of this change, which is more or less consistent across countries in the world, according to John Adams and Binda Paul, is the following :

As average national income rises, there is a proportionate shift of workers from agricultural to industrial employment. The share of the labour force in agriculture typically falls from, 60-80 per cent to 10 per cent or below. The size of the service sector may remain more or less constant, but within the sector there is a transition to modern banking, commerce, transport, and government.¹⁹

From a comparison of the more advanced and less advanced countries it may be deduced that, as the primary (mainly agricultural) proportions of the working population decline, those engaged in secondary (manufacturing) production increase, this being a further indicator of economic growth. It is almost well established that the income elasticity of demand for food is less than one, but the income elasticity of demand for manufactured goods is greater than one. It thus follows that when average incomes rise, the demand for food

(and therefore agricultural products) will grow less than proportionately while the demand for the products of industry will grow more than proportionately.²⁰ An implication of this view is that industrialisation occurs more or less automatically as average income rises. The reasons for the growing proportions engaged in tertiary activities are not always fully understood. Tertiary activities include a wide range of occupations such as 'theatre artistes' and 'beauticians', virtually unproductive in the strict economic sense and others such as dockers and lorry drivers clearly vital to a modern economy. The most numerous members of this group are in shopkeeping, domestic service, sport and entertainment.²¹

1.11.2 Is industrialisation the panacea ?

In the present context, the word 'Industry' connotes very many activities on a wider canvass. For instance, health-care and tourism are also treated as industries. However, normally, this word implies the manufacturing sector. The development of the manufacturing industry is often pursued with the objectives of producing employment to the growing population, raising the standard of living, improving balance of payment situation and achieving economic independence. But, adhoc efforts to achieve these objectives sometimes result in lopsided development.

The most noticeable effect of development which the under developed lands can see in the wealthy lands is the mass of

manufacturing industry from which the wealth, power and poise of the developed world appears to emanate. Consequently, it is not surprising that the introduction of manufacturing industry should be regarded uncritically as a panacea by many members of the have-not nations. This often leads to the framing of development programmes which are inappropriate for a region. With the result sometimes it is seen that industrialisation aimed at import substitution is pushed ahead at the expense of agriculture, rather than improving the primary production for export.

Limitations of agriculture

Throughout the world agriculture is reaching a stage of decreasing returns. On the other hand, industry is found to provide increasing returns.²² The fundamental disadvantage with agriculture is that the farmer has virtually no control over the natural forces and ravages of weather resulting in variation in yield from year to year. Further, production is generally slower than manufacturing industry. All these factors result in price fluctuations also. The seasonal character of farming operations in many parts of the world impose uneconomic use of labour and machinery. Farming machinery is costly and generally of a specialised character and may only be in use for a few weeks each year. This is in contrast to factory machinery which is normally utilised to the fullest extent possible. Another drawback of the agrarian

economy lies in the relative inelasticity of demand for agricultural products. Food stuffs, being vital to life, are already consumed in great quantities. Therefore, relatively little extra food is purchased if prices fall. Similarly, if incomes rise, a less than proportionate extra amount is spent on food. In contrast, the sale of manufactured goods is stimulated with income rise. This suggests that, as the developed lands have become richer, the primary producers selling them their agricultural produces have received less than proportionate share in their increased wealth.²³ This would mean that the international trade in primary products does not work much to the advantage of the developing countries, but tends to work in favour of industrialised nations. Even the advantages of cheaper rural labour is also passed on to the importing country.

Limitations of primary products exports

It has been estimated that in the major industrial countries synthetic materials account for about 15 per cent of the raw materials used in manufacture whereas the proportion was barely 3 per cent before the Second World War. But for this, imports of natural raw material into these major industrial countries might had been 40 per cent higher than they are at present. In all, for every \$ 100 worth of goods produced, the total import of fuel and raw material declined from \$ 26 in 1938 to \$ 21 in 1955.²⁴ This phenomenon viewed against the corresponding advantages lying with manufacturing indus-

try help to account for the situation where the primary producers were left behind in the development race. The decade of the 1950s saw the terms of trade swing adversely against the developing countries' primary exports. While export prices of manufactured goods rose by 20 per cent, export prices of primary products rose by only 5 per cent. During the 1960s raw material and fuel export prices declined slightly, but prices of foodstuffs exports rose. However, a 40 per cent increase in the cost of manufactured goods continued the adverse terms of trade pattern. It was not until the early 1970s, when widespread growth in developed economies was unmatched by adequate expansion of primary products and these economies saw shortages and heavy price rises, that terms of trade began to swing in favour of the developing countries.²⁵ However, the quadrupling of oil prices at the end of 1973 had disastrous effects. Large transfers of real income from the rest of the world to the OPEC countries led to balance of payment problems and depression in the industrialised world. Since nearly two-thirds of all developing countries' trade is with the developed countries, this had repercussions on the non-oil-developing countries. World prices of many primary products exported fell with reduced demand and again the primary producer suffered. Thus, the experience of the last quarter century is that the primary producers' share in the expanding world economy is generally far less than that of the industrialised countries.

Advantages of manufacturing industry

Manufacturing industry is sufficiently flexible in terms of methods, competition and output when compared to agriculture. The frequent introduction of new inventions and improved machinery and increasing specialisation and division of labour raising the overall efficiency and productivity is a significant feature of the manufacturing sector. It is possible to control production much more closely than farming. In a factory it is possible to manage a far larger labour force because their activities are specialised, regular and, in general, entirely insulated from vagaries of weather. Consequently advantages of scale lie with manufacturing industry which by its organisation aims at mass production through increasing efficiency and the application of power.

Social and demographic aspects

In most development efforts the two major goals are provision of work for growing populations and the raising of standards of living. The degree to which these aims may be realised seems to depend primarily on the demographic situation in each country. Capacity to support population depends upon the character of the economy. An industrial economy can carry a higher population before the onset of diminishing returns than an agricultural one. If population increases over the years and the economy stagnates possibly as a result of restricted ownership of land or social conditions where equal

division of property between the heirs leads to a state of chronic and uneconomic fragmentation, then a situation may be reached whereby the country's agricultural output will not increase with a further increase of agricultural population. This state of affairs indicates an extreme form of over-population, where increase of population brings a less than proportionate increase of production.

Balanced and unbalanced growth

Manufacturing sector is often related to the urban centres where market, labour and a range of public utilities are available. Though there is an argument that the industrial development in developing countries should be one of dispersal among rural areas where so much surplus labour is available the agglomeration of people makes it easier and cheaper to provide social, educational, police, sanitary and health facilities and provide utility services. Industry, however, has a greater need for skilled labour than agriculture. If public policy or private initiative results in an expansion of training and educational facilities, the increased supply of skilled labour will help to promote industry. Therefore, effective government policy for accelerating investment, increasing the supply of skilled labour, and creation of a conducive socio-political environment can increase the speed of industrialisation, systematically raising the productivity of labour and the rates of growth of aggregate output and income. In other words, a coherent policy for industrialisa-

tion should constitute a strategy of overall economic development. But in the case of many a developing countries such a coherent approach is hardly employed.²⁶ With the result urbanisation overshoots the growth of industrialisation and the flood of unskilled peasantry from the countryside far exceeds the creation of new industries and jobs. Cities expand mainly with accretion of squatter shacks-spontaneous settlements - but the inhabitants do not easily integrate with urban life-styles and bring village conditions into their shanty towns. Urbanisation under these conditions does not bring social and economic betterment, but merely exchanges under-employment in the country for unemployment in the towns.

W.A.Lewis and others (1955) had advocated the idea of balanced growth for underdeveloped economies. The main theme was that the investment should flow simultaneously to mutually dependent fields to ensure the success of all efforts in each of those fields.²⁷ In underdeveloped countries, economic problem affects practically all the sectors of productive process as well as distribution. Therefore, a synchronised developmental approach encompassing agriculture, industry and services is essential. At the same time, economic growth can be sustained only if sufficient infrastructural development is created through social capital investment.

Hirschman (1957), on the other hand, propounded the theory of unbalanced growth.²⁸ He, along with other economists be-

lieved that deliberate unbalancing with a pre-designed strategy should help transition from economic stagnation to economic development. Strategic imbalances can be deliberately created to put pressure on other sectors of the economy to induce development through artificial stimulation. In advanced countries economic development had generally followed the course of unbalanced growth, with growth being communicated from the leading sectors of the economy to the other sectors and from one industry to another. But, the major problem for formulating a strategy for unbalanced growth lies in the selection of the right kind of imbalance which can bring about the desirable result through a 'forward' or 'backward' linkage. In a developing country it will be extremely difficult to discover the kind of imbalance that is necessary for the best result. According to Gerald Meier (1970):

while a newly developing country should aim at plans as an investment criterion, this objective will be attained only by initially following, in most cases, a policy of unbalanced investment. In operational terms, the crucial question has become how to determine what is proper sequence of investment decisions in order to create the right amount of imbalance in the right activities.²⁹

In any case, the fact is that the above approach requires huge investments to complete the transition from under-development to development and growth.

1.11.3 Resource endowment and development

One general tendency in explaining the disparity in the development of different regions is to point to the difference in resource endowment. It is often found that the role and significance of possession of natural resources in economic development is unduly over-emphasised or even misunderstood. Development and under-development are often attributed to the maldistribution of natural resources or to particular geographical disadvantages of certain countries, such as their geographical position, size, soils and climate. These views are not absolutely correct. The possession of varied natural resources can definitely be advantageous but in themselves resources are not decisive. It is not difficult to name well-endowed countries that are still backward in development and to indicate other countries which are highly advanced yet apparently possessing few natural resources. Brazil and Indonesia, Switzerland and Denmark proved two examples of each. Brazil is known to have an abundance of mineral resources; its large size and varied structure offer a diversity of topography, climate, soils and mineral wealth, yet it remains relatively undeveloped and the per capita income of about £750 is low. On the other hand, Denmark, despite the lack of minerals and energy resources and a small size, has developed her economy to such an extent that on a per capita income basis she is one of the richest countries in Europe.³⁰

These examples suggest that much more than possession of resources is necessary for the furtherance of economic development. The economist's triumvirate - land, labour and capital are by no means the sole determinants of economic progress. Perhaps the most important factors are human ones. Resources in themselves are quite passive; the understanding of their possibilities, the will to use them, the application of capital and technical know-how are the means by which resources become active elements in economies. The possession of resources should be seen as permissive rather than deterministic.

1.11.4 Popular economic growth models

Just as we find disparity in the levels of development between nations, the levels of development between different regions of a country could also vary depending upon the vastness of the country. This regional disparity is, in fact, a matter of much concern for a vast country like India. The rigorous analytical techniques applied by the regional scientists in their study of the inter-relationships between economic and ecological systems have offered explanations of differences in spatial levels of development in developing countries. The body of economic development theory and models derived from it have proliferated since the Second World War. On examining the characteristics of these models one can find that there are basically two groups - the non-spatial view and the spatial view.

Non-spatial view

It was earlier concluded that there is little relationship between a region's resources and its commodity production. In this context, the non-spatial conceptual model of W.W.Rostow (1960) propounded that economic growth is not a continuous progression.³¹ He identified five stages - firstly, a traditional society characterised by agrarian way of life, limited technology and knowledge of science, and little social mobility, all this within a hierarchical feudal-type society. Then follows a lengthy transitional phase creating the pre-conditions for 'take-off', a greater willingness to lend capital is matched by innovation and entrepreneurial ventures. Almost simultaneously an appropriate government intervention resulting in the growth of infrastructure such as roads, railways, ports, etc. will result in the beginning of the setting up of industry. Then, a new elite emerges to challenge the authority of land ownership and change society and government. The next and most critical period is the 'take-off'. This will be a relatively short period during which growth becomes self-sustained. A most important aspect emerges from the growth-stage theory at this point: it is that, for successful 'take-off', domestic savings and investment must be of the order of about twenty per cent and they must be sustained at this level for two to three decades. The successful 'take-off' leads to a situation where a steady rate of growth can be regularly sustained and

momentum maintained by the spontaneous private forces in the economy. This phase constitutes the drive to maturity during which modern technology becomes increasingly applied, new leading sectors emerge, urbanisation creates changes in society and service activities expand. Finally the goal is to reach the stage of high mass consumption with its emphasis on durable consumer goods and the welfare state, a phase that only a handful of developed countries have attained.

Cumulative causation

Gunnar Myrdal, whose name is particularly associated with the studies related to the spatial variation in economic growth studies, first put forward his views in the mid 1950s.³² Traditional views of inter-regional relationships were based on the concept that differences in levels of income were temporary since, with free mobility of the factors of production, an equalisation of income would follow. This static equilibrium concept failed to explain the persistence of variations in levels of development as shown between countries and regions in the real world by per capita income, rates of growth of industrialisation, of trade, etc. To account for this, Myrdal advanced his hypothesis of cumulative causation which directly challenged the static equilibrium theory. He pointed out that the widening of differences in levels of development and income negated the theory that disequilibrium situations tend to move towards equilibrium but support the opposite view, that the play of market forces

tends to increase rather than decrease inequalities between regions. He cited the situation where a region of a country, by some initial advantage, begins to develop ahead of its neighbours. Now, it is well known that labour, capital and entrepreneurship in a free economy move to where the return is highest and where the demand is growing. His proposition was that economic and social forces will create cumulative expansion in the favoured region and widen the differences with other regions. In other words, a *multiplier effect* will produce increasing returns in the one region but will have an adverse effect on surrounding regions. He suggested that the positive flow to the favoured regions will create back-wash or negative effects upon other regions, for they will lose skilled and enterprising labour and capital and will lag even more behind the growth region which will go on increasing its competitive advantage and its real income. Goods and services from the advancing region may swamp local production in the other regions and their reduced economies will give them little strength to attract the range of social services the favoured region receive. This explanation of the interaction between growing and stagnating regions demonstrates polarisation effects. But, Myrdal also identified 'spread effects' which are eventual momentum from the expanding region which would stimulate growth elsewhere, especially as in contiguous areas.

Another model, very similar to that of Myrdal, was later published by Albert Hirschman.³³ He described that though there would be an attraction of labour, capital and other resources to the advancing region, later corrective stage of counter-balances would come into play to restore equilibrium and negate the earlier polarising forces. These may well be shaped by government economic policy and represent more positive forces than the somewhat uncertain spread effects of Myrdal's model.

Centre-periphery theories

Some aspects of Myrdal's work were expanded and taken further by John Friedman (1963) who, in his centre-periphery model, elaborated some of the relationships outlined by Myrdal.³⁴ He identified the major centres of growth and innovation as core regions which dominate dependent peripheral regions ('dominant core and dominated periphery'). The transfer of human, capital and natural resources weakens the peripheral economy but strengthens the core towards more innovation and more linkages. With the success of these movements, comes a psychological boost shown by new behavioural patterns which bring growing specialisation and economies of scale. The market and supply systems and the administrative control from core to periphery is repeated in hierarchical national systems, and is also applicable on a continental scale and, in a colonial and neo-colonial context, on an international scale. To site an example, Berry (1966) described India's economic

system at a regional level as showing an interacting set of economic activities based on major resource complexes and sets of regional economies grouped around major metropolitan centres.³⁵

Dualism

In the developing world, what is called dualism had emerged from the introduction in favoured areas of money and cash crops economies and modern manufacturing industry, which have come to parallel the traditional subsistence way of life. Such economy is typically the characteristic feature of an ex-colonial country having two differing types of economy with different technological levels. The traditional sector operates usually in household units and are labour intensive and with bare minimum capital investment. Such units are mostly aimed at subsistence. The modern sector, on the other hand, operates in large units with high capital investment and employing advanced technologies, mostly associated with mining, manufacturing and utilities.³⁶ In certain countries this modern sector is largely export-oriented and often foreign controlled. It is the backward sector - whether small industry, services or trade - which is truly domestic. The dualistic nature of the economy is manifested in a money economy and financial services and in new habits and ways of life with marked spatial aspect of bringing about regional inequalities. The dual economy is dynamic and divisive in its economic, social and spatial effects. The experiences of the

Third World economy would reveal that dualism is not a cause of backwardness and under-development but is an inevitable consequence of development and the development process. Labour and resources tend to be pulled in from the surrounding areas, and increasing infrastructure provision (both physical and social) at the centre reinforces this centrifugal effect. In short, logically, growth in one area retards growth somewhere else, and without remedial action a pattern of a lively and developing core surrounded by a stagnating rural periphery evolves. Singer (1969) drew attention to a most demoralising fact of dualism : that a superior and an inferior sector co-exist, but relations between the two do not make for equalisation, the superior element does little to pull up the inferior but may even push it down.³⁷

1.11.5 Entrepreneurial theories

The term 'entrepreneur' is an ambiguous one. Although entrepreneurship has been accepted as a prerequisite for economic development, the entrepreneur has had varied connotations that have varied from time to time. For instance, in the early sixteenth century, in France, the term entrepreneur was used for army leaders. It was applied to business for the first time in the eighteenth century to designate a dealer who buys and sells goods at uncertain prices.³⁸

There was considerable research as to what promoted entrepreneurship in different societies. Early sociologists like

Weber (1956) emphasised its occurrence in the context of religious belief system, thereby suggesting that the belief systems of Hinduism, Buddhism and Islam do not encourage entrepreneurship.³⁹ But there is little evidence for a one-to-one correspondence between religious faith and economic action. Nevertheless, an important lesson to be learned from Weber is that attitudes favourable to diligence and thrift are favourable for economic growth. Economists do not usually concern themselves with motivation and ideology, yet these can be powerful 'factors of production'.⁴⁰ But, economic motivations depend much on economic organisation and the structure of power.

Another current of thought underscored the need for achievement. McClelland (1953)⁴¹ in his article, 'That Urge to Achieve', characterised people with high nAch⁴² as preferring to be personally responsible for solving problems and for setting goals to be reached by their own efforts. They are also characterised by the need for feed back on how well they are accomplishing the job and obtaining the stated goals. McClelland believed that a person (or even an entire society) possessing a latent need for achievement can be taught achievement motivation - resulting either in the undertaking of new entrepreneurial activities or a more aggressive level of present entrepreneurial activity.

McClelland emphasised the achievement motive which is obtained through child-rearing practices with stress on stan-

dards of excellence, maternal warmth, self-reliance training and the low father dominance. However, in a later study he alters his position and ascribes changes in motivation to the ideological arousal of latent need for achievement among adults typically associated with a new sense of superiority. Thus, it may be possible to stimulate achievement oriented behaviour through training programmes.

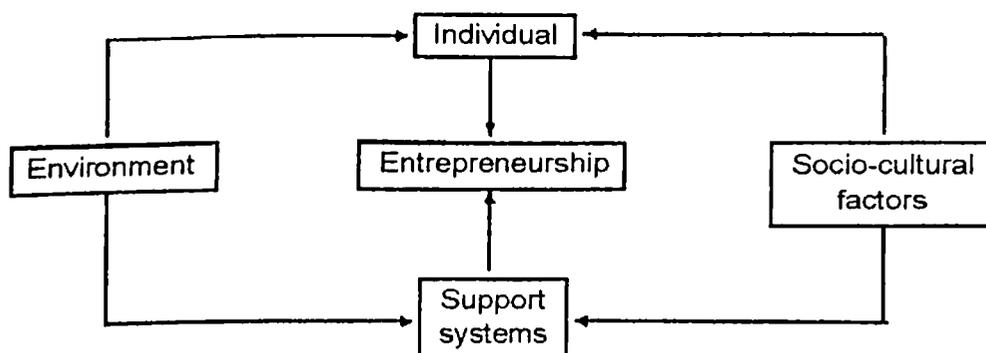
Schumpeter's (1948) entrepreneur possesses three things. First, an intuitional capacity to see things in a way which afterwards proves to be true. Second, a kind of effort of will and mind to overcome fixed habits of thinking and third, the capacity to surmount social opposition against doing something new. Such individuals, who occur randomly in any ethnically homogeneous population, are motivated by the dream and will to find a private kingdom, the will to conquer and the joy of creating or simply of exercising one's energy and ingenuity.⁴³

Bert F Hoselitz underlined the importance of culturally marginal groups in promoting economic development. The hypothesis that marginal men, because of their ambiguous position from a cultural or social stand point are particularly suitable to make creative adjustments in situations of change and in the course of the adjustment process to develop genuine innovations in social behaviour.⁴⁴

A large number of economists believe that economic environment is the most important aspect in supplying entrepreneurs. If there is lack of vigorous entrepreneurial response in manufacturing, it is due to various kinds of market imperfections and inefficient policy making. In recent years, managerial aspects of entrepreneurship are being emphasised. Whatever be the definition, the basic underlying concept seems to have remained the same. It connotes innovativeness, an urge to take risk in the face of constant uncertainties and an intuition i.e., a capacity of seeing things in a way which afterwards proves to be true. A critical evaluation of the major currents of thoughts, however, brings to surface certain common characteristics. These include the perception of economic opportunity, technical and organisational skills, managerial competence, and motivation to achieve results. The various concepts and theories propounded by the researchers, seem to indicate that the emergence of entrepreneurs in a society depends upon closely inter linked economic, social, religious, cultural and psychological variables (see Fig.1.1).

Fig. 1.1

Dynamics of Entrepreneurship



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Chapter 2

INDUSTRIAL SCENARIO IN KERALA - AN OVERVIEW

2.1 Introduction

The state of Kerala is blessed with bountiful natural resources, pleasant climate and a cropping pattern which provide many useful raw materials. Kerala, however, does not possess metallic minerals and fossil fuels, which are considered to be the primary industrial and energy raw materials. To start with, the early industrial activity in this region was mostly agro-processing utilising the local resources and was largely export-oriented. The predominance of cash crops, the early opportunities of the state in getting agriculture commercialised and opened to global markets, and the exploitative character of the colonial regime had led to a particular pattern of industrial activities, dominated by traditional industries like coir, cashew, handloom, handicrafts, etc. and a small number of modern industrial units with no substantial forward linkages.¹ With the producers remaining at the losing end of a shifting pattern of external demand and frequent changes of prices, those industrial

activities were also characterised by low level of technology, low value addition and exploitation of the benefits of low wage costs. Having realised the backwardness of the nature of industrialisation that had taken place in the region, several policy measures such as concessional credit, land and other infrastructural facilities were introduced even during the erstwhile princely regime. Thus, though not closely linked to the resource endowment of the region, several large scale modern industrial establishments were set up in this part of the country during the period from 1936 to 1947. Some of those units are said to have been pioneering attempts which were never tried in the sub-continent. Those were units manufacturing rayons, titanium dioxide, ammonium sulphate, rayon grade caustic soda, aluminium, etc., all of which came into existence due to sheer government intervention and initiative.² While many of these enterprises became nuclei of further growth, the overall impetus for industrialisation was a shortlived one mainly due to political changes associated with Indian independence. After independence, serious efforts for industrial development of Kerala began only with the Third Five Year Plan in the 1960s.³ Therefore, at the time of its formation in 1956, the state of Kerala was inheriting a weak industrial base.

As of now, the industrial sector of Kerala comprises about 1,10,300 registered small scale units, 210 medium and large scale industries and numerous unregistered small and tiny

units (as on 31st March, 1994). Out of the 210 medium and large scale units, 18 are owned by central government and 45 by the state government; 15 are in the co-operative sector and 32 in the joint sector leaving only 100 units (ie; 47.6 per cent) in the private sector. Out of the 45 state-owned enterprises, 22 were working on loss. Out of the total 63 public sector units, 8 are development and infrastructural agencies and 11 are public utilities and welfare agencies. While the aggregate investment of all the small scale units which provide employment to 6.30 lakh persons is about Rs.1175 crores the corresponding figures for the large and medium units in the state is only 9535 persons and Rs.2817 crores. Of this, the private sector gives employment to only 1070 persons with a comparatively minuscule investment of about Rs.99 crores⁴. The situation being this, it was felt that to understand the overall industrial scenario in quantitative terms it would be appropriate to focus on the small sector, as the data from the medium and large scale units will be both inadequate and deceptive to draw any general conclusions. From this point of view and also considering the fact that the small-sector would have remained open to the market forces (unlike in the case of the public sector enterprises which formed a major part of the large and medium scale industries in Kerala), it was decided to study this sector in detail through: (a) drawing an initial picture about the small sector in this chapter, using published data available from the All-India Census Survey Reports, and (b)

through a detailed analysis based on a sample survey (see Chapter 3). However, the overall picture with regard to the medium and large industries have been separately dealt with in this chapter before focusing on the small sector. Further, the detailed analysis of the performance of State Public Sector Enterprises and two traditional sectors have been done in Chapter 4 as part of the study on the earlier industrial development approaches.

2.2 Overall performance indicators

During the quarter century from 1960-61, Kerala's economy underwent some transformation marked by a decline of the primary sector and an increase in the tertiary sector. This phenomenon, however, was not related to any rapid industrialisation in this region.⁵ In 1960-61, the State Domestic Product (SDP) originating from manufacturing, and from the secondary sector as a whole formed only 12.5 per cent and 15.2 per cent respectively. By 1988-89, though the share of secondary sector as a whole grew to 20.7 per cent, the share of manufacturing remained almost the same (Table 2.1).

Table 2.1

Sectoral Contribution of
State Domestic Product in Kerala

(per cent)

Sector	1960-61	1970-71	1980-81	1985-86	1986-87	1987-88	1988-89
Primary	56.0	51.8	44.2	42.0	36.7	36.9	37.2
Secondary (Manufacturing)	15.2 (12.5)	17.1 (13.1)	22.2 (16.8)	18.8 (13.9)	21.5 (13.2)	21.2 (12.7)	20.7 (12.2)
Tertiary	28.8	31.1	33.6	39.2	41.8	41.9	42.1

Sources : 1. Government of Kerala, *Facts and Figures*, 1990.2. State Planning Board, *Report of the High-level Committee on Industry, Trade and Power*, Vol.1, May, 1984.

The growth performance of the manufacturing sector as a whole has been below the all-India average. As against an annual compound growth rate of 10.56 per cent (at 1980-81 prices) for all-India, Kerala recorded only a marginal growth rate of 1.73 per cent in the value added by manufacture between 1980-81 and 1987-88.⁶ The compound annual growth rate of number of registered factories fell from 2.9 per cent between 1970-71 and 1980-81 to 1.3 per cent between 1980-81 and 1989-90.⁷ This, decline in the number of units was, however, a national trend. The percentage share of Kerala in the value of national output in the manufacturing sector marginally increased from 2.7 per cent in 1970-71 to 3.4 per cent in 1980-81 and later on fell to 2.6 per cent in 1989-90.⁸ During the same period from 1970-71 Andhra Pradesh recorded an increase in its share from 5.0 per cent to 5.9 per cent and Karnataka an increase from 4.1 per cent to 4.4 per cent. Tamil Nadu's

Table 2.2

Manufacturing Output in State Domestic Product
(at 1970-71 prices)

Rs. in Lakhs			
Year	Manufacturing (Registered)	Manufacturing (Unregistered)	Manufacturing (Total)
(1)	(2)	(3)	(4)
1960-61	3,525	4,338	7,863
1961-62	3,855	4,338	8,193
1962-63	4,324	4,346	8,670
1963-64	4,566	4,377	8,943
1964-65	4,963	4,348	9,311
1965-66	5,184	4,324	9,508
1966-67	5,903	4,349	10,252
1967-68	7,548	4,388	11,936
1968-69	7,144	4,442	11,586
1969-70	8,103	4,516	12,619
1970-71	7,031	8,601	15,602
1971-72	8,773	8,565	17,338
1972-73	8,611	9,642	18,253
1973-74	8,287	9,687	17,974
1974-75	7,946	9,268	17,214
1975-76	8,184	10,171	18,355
1976-77	9,393	9,955	19,348
1977-78	10,148	9,146	19,294
1978-79	10,113	9,597	19,710
1979-80	11,330	10,495	21,825
1980-81	11,721	10,211	21,932
1981-82	12,184	10,448	22,632
1982-83	12,472	10,867	23,339
1983-84	11,417	10,925	22,342
1984-85	11,324	10,043	21,367
1985-86	12,075	9,581	21,656
1986-87	14,316	9,970	24,286
1987-88	11,605	10,674	22,279

Sources : 1. Directorate of Economics and Statistics, *Statistics for Planning* (various issues) and other interim publications.
2. State Planning Board, *Economic Review* (various issues).

share more or less remained constant at 10.3 per cent. Madhya Pradesh, Haryana, Punjab and Uttar Pradesh significantly increased their shares in the value of output in the manufacturing sector. The trends in the output in the manufacturing sector (registered and unregistered) of Kerala as given in Table 2.2 would reveal that the unregistered manufacturing sector accounts for about half of the production in the state. This shows that the informal manufacturing sector is as prominent as the formal sector. The growth rates during different periods also reveal that there has been a significant decline in the growth of the manufacturing sector in Kerala (see Table 2.3).

Table 2.3

Growth rates in Manufacturing Output

Growth Rates during	Manufacturing (Registered)	Manufacturing (Unregistered)	Manufacturing (Total)
1960-61 to 1970-71	8.26	3.32	6.10
1970-71 to 1980-81	4.21	1.43	2.80
1980-81 to 1987-88	0.75	0.45	0.23

Source : Computed based on Table 2.2

A relative position of Kerala in the industrial scenario of the country would be revealed by comparing a few selected characteristics of factory sector industries (Table 2.4). On the whole, it could be said that Kerala's share in industry is not even proportionate to its population base in the country. Kerala, with about 3.5 per cent of the country's

Table 2.4

Comparison of Selected Characteristics of
Factory Sector Industries in different States

(1989-90)

State	No. of Factories	Fixed Capital (Rs.Cr.)	No. of Employe- es (Lakh Nos.)	Value of Output (Rs.Cr.)	Net Value Added (Rs.Cr.)
Andhra Pradesh	16,007	7576.2	8.17	13,653	2,180
Assam	1,585	974.0	1.22	2,981	749
Bihar	3,491	6705.9	3.64	11,343	2,634
Goa, Daman & Diu	248	242.4	0.17	978	181
Gujarat	10,881	9520.9	7.07	24,080	3,702
Haryana	3,162	3156.8	2.42	8,023	1,176
Himachal Pradesh	284	987.9	0.53	879	257
Jammu & Kashmir	228	56.1	0.13	386	51
Karnataka	5,724	4023.5	4.15	10,104	2,184
Kerala	3,422 (3.2%)	2292.9 (2.1%)	2.59 (3.2%)	5,906 (2.6%)	1,427 (3.3%)
Madhya Pradesh	3,489	8687.6	4.14	12,206	2,383
Maharashtra	15,489	18867.1	12.24	49,816	9,962
Manipur	40	0.4	0.00	1	1
Meghalaya	31	200.2	0.06	29	10
Nagaland	55	99.3	0.02	28	5
Orissa	1,405	5030.6	1.59	4,763	1,133
Punjab	6,136	5043.2	4.02	12,178	2,148
Rajasthan	3,089	4075.6	2.60	7,196	1,166
Tamil Nadu	13,800	9413.6	9.39	24,067	4,719
Tripura	322	71.1	0.16	48	8
Uttar Pradesh	9,862	11791.2	7.97	22,123	4,188
West Bengal	5,384	7362.8	7.38	14,062	2,310
All-India *	1,07,992	106927.8	81.43	2,30,659	43,373

Notes : 1. Figures in brackets are percentages to total.
2. * Includes figures pertaining to Union Territories which are not indicated in the Table.

Source : CSO , *Annual Survey of Industries : 1989-90*,
Government of India, New Delhi, 1993.

population, accounts for only 3.2 per cent of the number of factories, 2.1 per cent of fixed investment, 3.2 per cent of employment, 2.6 per cent of gross output and 3.3 per cent of net value added in the manufacturing factory sector as in 1989-90.⁹ Further, the relative growth of Kerala's share in the national total of employment and net value added as compared to the other three southern states had also been poor (Table 2.5).

Table 2.5

Relative Shares (on all-India) of Net Value added (NVA) and Employment (EMP)

	Kerala		Tamil Nadu		Karnataka		Andhra Pradesh	
	EMP	NVA	EMP	NVA	EMP	NVA	EMP	NVA
1970-71	3.43	2.86	9.76	9.82	4.25	5.75	3.25	3.97
1975-76	3.82	2.53	10.03	8.52	5.15	5.07	7.30	5.00
1980-81	3.62	3.27	10.30	10.30	5.13	5.05	8.63	4.89
1985-86	3.12	2.90	11.46	10.32	5.03	5.04	8.83	5.42
1989-90	3.18	3.30	11.53	10.90	5.10	5.04	10.03	5.03

Sources : 1. CMIE, *Basic Statistics Relating to States of India*, September, 1994.

2. CSO, *Annual Survey of Industries* (various issues)

2.3 Some recent statistics

A look into the recent trends of investment in Kerala do not indicate an immediate bright future in terms of investment in the secondary sector. In terms of the per capita investment in mining, manufacturing and infrastructure (which are at various stages of implementation), Kerala is roughly around the 15th position among all the states.¹⁰ Kerala's figure (Rs.5,157) is also much below the national average of Rs.9,175. All the other three southern states were close to the national average with Karnataka (Rs.10,498) standing well above the all-India figure. A closer look in terms of the distribution of investment in terms of status of implementation (Table 2.6), nature of ownership (Table 2.7), and type of industry (Table 2.8) would throw light on the trend in investments. For a comparative picture the figures of the other three southern states viz; Tamil Nadu, Andhra Pradesh and Karnataka have been juxtaposed along with Kerala figures.

Table 2.6

Distribution of Investment : by Status of Project

(Rs.Crores)

State	No. of Projects	Announced	Awaiting approval	Proposed	Under implementation	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	294 (9.5)	19333	453 (7.8)	17092 (29.5)	21116 (36.41)	57993
Karnataka	218 (7.04)	7888	3471 (7.4)	14725 (31.2)	21133 (44.75)	47217
Kerala	70 (2.3)	2830	2250 (15.0)	6557 (43.7)	3369 (22.45)	15006
Tamil Nadu	186 (6.0)	7876	45 (3.4)	21005 (30.8)	14882 (44.82)	43809
All-India	3093	162985	26187	239228	348044	776444

Notes : 1. Figures in brackets in column 2 are percentage to the all-India total number of units (3093)

2. Figures in brackets in column 4,5 and 6 are percentages to the corresponding state total in column 7.

Source : CMIE, *The Shape of Things to Come*, December, 1994.

From Table 2.6, it is evident that Kerala is backward in terms of both the percentage share of number of projects on the anvil (2.3) and the percentage share of investment in all-India total (1.93). Andhra Pradesh, on the other hand, accounts for 7.5 per cent of the share in all-India investment. The corresponding figures for Karnataka and Tamil Nadu are 6.1 per cent and 5.64 per cent respectively. A look into the status of implementation revealed that Kerala is

lagging behind the other three states and all-India in terms of percentage of investment under implementation. This observation is supported by the fact that Kerala has the maximum percentage of investment awaiting approvals (15 %) . Further, majority of the investments are only at the proposal stage (43.7 %).

A analysis of the distribution of investment by ownership revealed that there is a marked difference between the trend in Kerala and at the national level (Table 2.7). The high level of percentage share of central sector investment (37.7 %) in Kerala is in sharp contrast to the low figure at the national level (19.3 %). Similarly, the private sector in Kerala had a mere 30.1 per cent share of investment as against the figure of 51 per cent at the national level. Here, it should be noted that much of the investment (65.7 per cent) in Kerala is in vital infrastructure building such as electricity, and irrigation (see Table 2.8). The level of investment flowing into manufacturing sector is only 22.07 per cent. A detailed analysis within the manufacturing sector revealed that but for the predominance of investment in chemical industries, the thrust in Kerala is still on agro-based projects.

Table 2.7

Distribution of Investment by Ownership

(Rs.Crores)

States	Total no. of projects	Government sector			Joint sector	Private sector	Total
		Central	State	Total			
Andhra Pradesh	294	4401	10570	14971	319	42703	57993
Karnataka	218	1001	9205	10206	5806	31205	47217
Kerala	70	5668	4575	10243	240	4523	15006
		(37.7)	(30.6)	(68.3)	(1.6)	(30.1)	(100)
Tamil Nadu	186	9219	10134	19353	6605	17851	43809
All-India	3093	149751	172787	322538	57892	396014	776444
		(19.3)	(22.2)	(41.5)	(7.5)	(51)	(100)

Note : Figures in brackets are percentage to the row total

Source : CMIE, *The Shape of Things to Come*, December, 1994.

Table 2.8

Distribution of investment by industry

(Rs.Crore)

Sl. No.	Industry Group	Kerala	Percentage to total	All-states	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Mining and refining	1836	12.24	1,06,879	13.8
2.	Manufacturing (total)	3313	22.07	2,28,948	29.5
	- Aquaculture	15	0.5 *	1,028	0.4 *
	- Alcohol	185	5.6 *	1,562	0.7 *
	- Food Products	250	7.5 *	3,321	1.5 *

(1)	(2)	(3)	(4)	(5)	(6)
-	Cottons Blended textiles	65	2.0 *	7,700	3.4 *
-	Textile products	37	1.1 *	1,108	0.5 *
-	Pulp & paper	650	19.6 *	10,357	4.5 *
-	Chemical	1973	59.6 *	71,182	31.0 *
-	Rubber	10	0.3 *	1,483	0.6 *
-	Non-metallic mineral	46	1.4 *	3,419	1.5 *
-	Metal based	60	1.8 *	64,564	28.2 *
-	Non-electrical machinery	22	0.6 *	1,071	0.5 *
3.	Infrastructure (total)	9857	65.7	4,40,617	56.7
-	Electricity and wood c	8058	81.7	3,48,218	79.0 *
-	Oil and Gas				
-	Irrigation	1208	12.3	15,103	3.4 *
-	Hotel and Restaurants	591	6.0	1,694	0.4 *
	All Industries	15006	—	7,76,444	—

Notes : 1. * Indicates percentages to total within the broad industry groups
2. Only those individual industry groups relevant to Kerala have been considered under 'All-States' column. Therefore, totals may not tally.

Source : CMIE, *The Shape of Things to Come*, December, 1994.

2.4 Medium and Large scale industries in Kerala

As seen earlier, the industrial structure of Kerala is characterised by very low representation of large and medium scale industrial units. The capital invested and employment

generated in the large and medium industries in the state as on March, 1989 are given in Table 2.9. The large and medium industries include central and state government companies, joint sector companies and private companies. But, the major chunk of investment is in the central sector (47.3%). This is on account of only about 8.5 per cent of the total number of units. This, in no way, indicates that Kerala had been enjoying large scale central investment, as Kerala's share of central investment (1.3% as in 1993) is much below its share in national population (3.5%).¹¹ Though the state companies account for about 21 per cent in terms of numbers, the value of investment is only 18.6 per cent. The private sector accounted for about 48 per cent of the total number of units, but has a share of only 28.6 per cent of the total fixed assets. In other words, the average investment in the private sector had been about Rs.5 crores which was less than the average investment in the state sector (Rs.6.5 crores) and much below that of the central sector (Rs.47 crores). This, in a way, reflects the poor private sector participation in the medium and large scale industrial sector of the state. But, the private sector appears to be generating comparatively more direct employment opportunities (40.6 %).

Table 2.9

Sector-wise Distribution of Large and Medium Scale Industries in Kerala

Sl. Sector No.	No. of Companies	No. of Units/ Divisions	Value of Gross Fixed Assets		Average investment * (Rs.Cr.)	Annual Turnover		Direct Employment	
			Amount (Rs. Crores)	Percentage to total		Amount (Rs. Crores)	Percentage to total	Mos. (in '00)	Percentage to total
1. Central	18	20	942	47.3	4.7	1766	53.9	270	27.3
2. State	45	57	370	18.6	6.5	352	10.7	234	23.7
3. Co-operative	15	15	32	1.6	2.1	57	1.7	43	4.3
4. Joint	32	32	77	3.9	2.4	125	3.8	41	4.1
5. Private	100	113	569	28.6	5.0	977	29.9	402	40.6
Total	210	237	1990	100.0	9.5	3278	100.0	990	100.0

Note : * Investment per Unit/Division

Source : State Planning Board, *Report of the Task Force on Large and Medium Scale Enterprises (Eighth Five Year Plan)*, May, 1989.

An industry-group-wise distribution of the 210 large and medium manufacturing units show a somewhat lopsided industrial base in Kerala with heavy concentration in chemicals both in number of units and value of investment (Table 2.10). As it would be seen in the later chapters of this thesis, certain peculiar regional characteristics of Kerala do not substantiate this trend and may not also justify any further thrust in this sector. In terms of the value of production also, this sector accounts for about 54 per cent of the total.

Table 2.10

**Distribution of Large and Medium
Manufacturing Companies in Kerala by Industry group**

(as on 31-03-1989)

Industry Group	No. of Companies	No. of Units/ Divisions	Value of Gross Fixed Assets		Estimated Turnover per year		Aggregate Direct Employment	
			Amount (Rs. Crores)	Percentage to total	Amount (Rs. Crores)	Percentage to total	Mos. (in '00)	Percentage to total
1. Food processing	19	20	66	3.3	92	2.8	40	4.0
2. Textiles	33	35	131	6.6	209	6.4	224	22.6
3. Paper & Paper products	3	3	169	8.5	85	2.6	29	2.9
4. Rubber Products	19	19	131	6.6	222	6.8	56	5.7
5. Fertilisers and Chemicals including Misc. Chemicals	37	41	256	43.0	1784	54.4	247	25.0
6. Drugs and Pharmaceuticals including Ayurvedic Preparations	4	4	13	0.7	23	0.7	9	0.9
7. Basic Metals	2	2	58	2.9	62	1.9	12	1.2
8. Metal Products	28	33	217	10.9	207	6.3	131	13.2
9. Electrical and Allied Products	8	10	66	3.3	106	3.2	56	5.7
10. Electronics	24	32	114	5.7	234	7.1	76	7.7
11. Mineral based (including Cement)	9	13	116	5.8	118	3.6	56	5.7
12. Beverages	5	5	13	0.7	23	0.7	8	0.8
13. Miscellaneous Industries	19	20	40	2.0	113	3.5	46	4.6
Total	210	237	1990	100.0	3278	100.0	990	100.0

Source : State Planning Board, *Report of the Task Force on Large and Medium Scale Enterprises (Eighth Five Year Plan)*, May, 1989.

Electronics, which has the fourth place in terms of the number of units has an investment of only about 5.7 per cent of the total. Its share in total turnover is only 7.1 per cent. It may be noted here that considering the high human capital formation which has taken place in this state, the performance of electronic industry, as seen from the above figures, is disappointing. On the other hand, metal industry is found to have a significant presence in terms of number and value of investment. This is somewhat surprising considering the fact that Kerala does not possess the metallic mineral raw materials such as iron ore, bauxite, etc. Therefore, it is quite likely that this phenomenon is more associated with the present building construction boom in Kerala. In contrast to this, though this region has an abundance of natural non-metallic minerals such as china clay, silica sand, rare-earths, etc., the number of units and investment in mineral-based units are substantially low, the corresponding percentages being 4.3 and 5.8 respectively.

The district-wise distribution of the large and medium scale industries in Kerala is shown in Table 2.11. The figures in this table reveal that nearly one fifth of the total number of large and medium scale industries are concentrated in Ernakulam district. Further, nearly 50 per cent of the total investment (49.9%) also lies in this district. This concentration of industries in Ernakulam district is primarily on account of the initial industrial base created by the setting

up of large industrial units during a decade from 1935. The same trend continued even after independence as many of the central public sector units such as Cochin Refineries Ltd., Cochin Shipyard Ltd., Hindustan Organic Chemicals Ltd., Hindustan Insecticides Ltd., etc. were all set up in this district. The districts such as Kasaragod, Wayanad, Idukki, Pathanamthitta, Malappuram and Cannanore remained comparatively backward in terms of industrial investment.

Table 2.11

Distribution of Large and Medium Industries in the Districts of Kerala

District	No. of Companies	No. of Units/ Divisions	Value of Gross Fixed Assets		Estimated Annual Turnover	
			Amount (Rs. Crores)	Percentage to total	Amount (Rs. Crores)	Percentage to total
1. Trivandrum	20	29	76	3.8	121	3.7
2. Quilon	16	19	183	9.2	125	3.8
3. Alleppey	24	26	84	4.2	128	3.9
4. Pathanamthitta	6	6	11	0.6	10	0.3
5. Idukki	3	3	10	0.5	14	0.4
6. Kottayam	11	11	186	9.4	114	3.5
7. Ernakulam	40	52	993	49.9	2015	61.6
8. Trichur	26	26	167	8.4	288	8.8
9. Palghat	14	21	159	8.0	230	7.0
10. Calicut	9	16	63	3.2	93	2.8
11. Malappuram	15	15	38	1.9	46	1.4
12. Wynad	2	2	3	0.2	17	0.5
13. Cannanore	13	13	34	1.7	77	2.3
14. Kasaragod	1	1	0.5	0.02	0.40	0.01
Total	210	237	1990	100.0	3278	100.0

Source : State Planning Board, *Report of the Task Force on Large and Medium Scale Enterprises (Eighth Five Year Plan)*, May, 1989.

Ironically enough, districts such as Kasaragod, Cannanore and Malappuram do have comparatively higher land availability.¹² Here, it should be noted that scarcity of land is a major impediment to the process of industrialisation of Kerala. The other districts such as Idukki and Wyanad are, however, classified as 'eco-fragile' districts due to large forest areas and the resultant ecological considerations.

2.5 Sickness in medium and large sector

The Task Force on Large and Medium Scale Enterprises formed in connection with the formulation of the Eighth Five Year Plan had done a preliminary study on the aspect of sickness in medium and large scale industry.¹³ To identify sickness and classify the units into sick and weak categories, the Task Force adopted the following norms which were more or less in line with the norms stipulated by the Board for Industrial and Financial Reconstruction (BIFR).

- a) Sick Unit : A sick industrial unit is a unit which has, at the end of any financial year, accumulated losses equal to or exceeding its entire share capital and free reserves and has also suffered cash losses for such financial year or the year immediately preceding such financial year.

b) Weak Unit : A weak unit is one having accumulated losses equal to or exceeding 50 per cent of its share capital and free reserves and has suffered cash losses during the current year or immediately preceding financial year.

According to the above norms 61 large and medium scale industries were identified as sick, which amounts to 29 per cent of the total number of units. Another 12 units (ie; 5.7 per cent of the total) were identified as weak units.¹⁴

2.6 The Small-Scale Sector

The Small Scale Industries (SSI) have been recognised as an important tool of economic growth of the nation, mainly because of its capability to provide large scale employment at low level of capital investment. It also has the unique contribution towards disbursed development. At the all-India level, ever since the launching of planned development, the SSI sector had grown at a phenomenal rate, both in numbers and contribution to the overall economy.¹⁵

An analysis of the relative performance of the small industry in Kerala is important in the changing overall economic scenario in the country. This analysis is, in fact, a prerequisite for any new policy formulation aimed at the industrial development of the region. Such an exercise will be more useful for a state like Kerala where the record of

industrial growth has been very poor. As it was revealed in the earlier part of this chapter, private investment in the large scale industrial sector of the state has been low and the prospects of attracting national capital is also less compared to other states in the country. It may, however, be noted that the scope for tapping certain types of resources, especially the human resources, through the development of small scale industry is apparently very large in this southern state.

2.6.1 Definition of small-scale and ancillary industries

Before analysing the growth performance of the small sector, it was felt appropriate to look into the changes that have undergone in the definition of small scale industries and ancillary industrial undertakings over the years. Changes have mainly been brought about keeping in view the price escalation over the past few years. Small scale industries have been defined in terms of the upper ceiling of investment in plant and machinery (original value) alone since 1966.¹⁶ The investment ceiling for plant and machinery (original value) which was then fixed at Rs.7.5 lakhs in the case of SSI units and Rs.10 lakhs for ancillary units was revised upwards four times thereafter (see Table 2.12). Within the overall SSI sector, there could be 'tiny units' which are defined as 'those undertakings which have investment in plant and machinery not exceeding Rs.5 lakhs and located in towns

with a population of 50,000 or below'. Besides these, 'service establishments' are those undertakings with an investment not exceeding Rs.2 lakhs.¹⁷

Table 2.12

Changes in Investment ceiling for Small-Scale Industries

(Rs.in Lakhs)

Year	1966	1975	1980	1985	1991
Description	Investment Ceiling for Plant and Machinery				
Small Scale Industries	7.5	10	20	35	60
Ancillary Industries	10	15	25	45	75
Small Service - Establishments	- -	- -	2*	2*	--
Export Oriented Small Scale Industries	- -	- -	- -	- -	75
Small Scale Service & Business (Industry related) Enterprises (SSSBE)	- -	- -	- -	- -	5

Note : * Located in rural areas and towns with population of 5 lakhs

Source : Development Commissioner (SSI), *Report on the Second All-India Census of SSI units - Kerala, Vol.I, 1992*

2.6.2 Growth performance of small-sector

At the national level, the performance of the small sector had been quite impressive, in spite of all the limitations

and problems faced by this sector. As at the end of March, 1994, there were 23.84 lakhs SSI units in the country with an annual production of Rs.241648 crores (at current prices). The export from the sector was Rs.24149 crores and it provided employment to 139.38 lakh persons. It was also found that this sector contributes to 40 per cent of value added in the manufacturing sector and 34.5 per cent of the total exports of the country¹⁸. The growth in terms of number of units, investment, employment, production and exports had been steady over the years (see Table 2.13). The number of small scale industries had steadily increased at an annual rate of about 7.7 per cent, and employment at the rate of 5.4 per cent during the period from 1984-85 to 1991-92. During the same period Kerala gives a totally different picture of growth in the small sector (Table 2.14).

Table 2.13

Growth of Small Scale Sector in India

At the end of the year	Total Number of Units (Lakhs)	Invest- ment (Rs.Cr.)	Employ- ment (Lakh Nos.)	Pro- duction (Rs.Cr.)	Exports	
					(Rs.Cr.)	% share to total exports
1974-75	4.98	2697	40.4	9200	541	16.3
1975-76	5.46	3204	45.9	11000	532	13.2
1976-77	5.92	3553	49.8	12400	766	14.9
1977-78	6.70	3959	54.0	14300	845	15.6
1978-79	7.34	4431	63.8	15790	1069	18.7
1979-80	8.05	5540	67.0	21635	1226	19.1
1980-81	8.74	5850	71.0	28060	1643	24.5
1981-82	9.62	6280	75.0	32600	2071	26.5
1982-83	10.59	6000	79.0	35000	2097	23.8
1983-84	11.58	7360	84.2	41620	2159	22.1
1984-85	12.42	8380	90.0	50520	2541	21.6
1985-86	13.53	9585	96.0	61100	2785	25.6
1986-87	14.57	10975	101.4	72250	3643	29.3
1987-88	15.83	12621	107.0	87300	4372	29.0
1988-89	17.01	14450	113.0	106875	4535	28.9
1989-90	18.23	16620	119.6	132320	7625	29.2
		*(11311)		*(90055)		
1990-91	19.48	NA	125.8	155340	9664	N.A
1991-92	20.82	NA	129.8	178699	13883	N.A
				*(104269)		

Annual growth rate (%) between :

1984-85 and 89-90	7.9	6.2	5.9	12.3	--	--
1984-85 and 91-92	7.7	--	5.4	10.9	--	--

Notes : 1. * at constant prices for growth rate calculation
2. NA - Not available

Sources : 1. CMIE, *Basic Statistics of Indian Economy*, Vol - 1, August, 1988.
2. V.Desai, *Entrepreneurial Development*, Himalaya Publishing House, Bombay, 1991

Table 2.14

Growth of Small Scale Sector in Kerala

At the end of the year	Total no. of regd. units	Investment (Rs. crores)	Employment (Lakh nos)	* Production (Rs. crores)
1974-75	7984	N A	N A	N A
1984-85	31499	335.08	2.3	950.0
1985-86	35365	384.91	2.57	1108.5
1986-87	40342	451.60	2.87	1314.9
1987-88	47191	546.01	3.25	1502.3
		*(433.5)		
1988-89	55427	659.67	3.67	1727.9
1989-90	64675	684.8	4.02	2335.5
		*(466.1)		*(1589)
1990-91	73522	732.80	4.45	2365.4
1991-92	84440	863.86	4.98	2585.0
		*(504.05)		*(1508.3)

Annual growth rate (%) between :

1984-85 and 89-90	15.4	6.8	11.80	10.84
1984-85 and 91-92	15.1	6.0	11.6	6.80

Notes : * at Constant prices for growth rate calculation
NA - Not available

Sources : 1. State Planning Board, *Economic Review* (various issues),
2. State Planning Board, *Report of the Task Force on Small Scale Industries*, 1989.

While the growth in the number of units and employment are almost double the national average, the growth rate in pro-

duction (6.80) is much less than the corresponding all-India figure (10.9) However, the growth in investment in the case of Kerala is marginally higher than the national figure (between 1984-85 and 1989-90). Though, not in very clear terms, this anomalous growth pattern is an indication of one or more of the following :

- (a) Low scale of value addition which is disproportionate to the number of units and investment. This, in turn, points to the low level of technology or low productivity.
- (b) Unreliable data due to the ill-equipped data acquisition system and resultant blown-up unrealistic figures.
- (c) The initial low base of industrial activity (at 1984-85, in the present analysis) compared to all-India.
- (d) A pattern of industrial growth different from the national trend.

Considering the above aspects, a further analysis in terms of the share of Kerala in all-India, in terms of the number of small scale units, investment, employment and value of production have been attempted (Table 2.15). A study of the growth in the share of the state on the above parameters strengthens the aforesaid conclusions with regard to value addition. While the share of number of units and employment have grown at more than 6 per cent annually, the growth in the share of value of production was negative. The growth in

the share of investment was negligible. All these indicate that the growth of small-sector in Kerala is mostly in quantity (ie; number of units) rather than in terms of the quality (say, value addition).

Table 2.15

Percentage Share of Kerala in All-India in terms of Number, Investment, Employment and Value of Production

Year	% Share in all-India			
	No. of units	Investment	Employment	Production
1984-85	2.5	4.0	2.5	1.9
1985-86	2.6	4.0	2.7	1.8
1986-87	2.7	4.1	2.8	1.8
1987-88	3.0	4.3	3.0	1.7
1988-89	3.2	4.6	3.2	1.6
1989-90	3.6	4.1	3.4	1.8
1990-91	3.8	- -	3.5	1.5
1991-92	4.0	- -	3.8	1.4
Annual growth of % share in all-India	6.9	.004	6.2	-4.3

Source : Computed based on Tables 2.13 and 2.14

Since the natural tendency to project unrealistic achievements, starting with the District Level Offices cannot be ruled out and also considering the fact that the present systems and procedures followed are ill-equipped for proper data acquisition and processing (to be dealt with in detail in Chapter 4), it was felt that the growth performance of the small sector could be analysed using the data available from

the two All-India Census Survey Reports on small-scale industries published by the Development Commissioner (SSI), Government of India, in 1977 and 1992. While the 1977 report pertains to the data as in 1972-73 the 1992 report is with respect to the registered units up to 31st March, 1988. Therefore, this analysis will have a limitation of not using the recent data, especially data of the 1990s when rapid changes have taken place in the overall economic scenario in the country. A comparison of the main findings of the two surveys is given in Table 2.16.

Using the data available from the survey reports, the growth performance of small industry could be analysed by studying the percentage changes between 1972-73 (first census) and 1987-88 (second census) in certain selected growth indicators as shown in Table 2.17. This analysis revealed that, though the growth in number of units in Kerala was almost at par with the all-India figure, the growth record in net-value addition and employment generation are very poor compared to the corresponding all-India figures. The low growth in employment in Kerala indicated by this analysis is in sharp contrast to the analysis done earlier based on the data collected from the State Planning Board, its publications and also the Directorate of Industries and Commerce. In fact, the All-India Census Survey had indicated a drop in the 'per-unit employment' from 20 persons in 1972-73 to 7 persons in 1987-88, which could be taken as a normal phenomenon considering

Table 2.16

Comparison of Main Findings of the First and Second
All-India Census Surveys

Description		(Kerala State)			
		1st All-India Census of SSI units (1972)		2nd All India Census of SSI units (1987-88)	
(1)	(2)	(3)	(4)	(5)	(6)
A.	Total units as per frame list	11427 (As on 30-11-1973)		38030 (As on 31-03-1988)	
	Working units	6903		25717	
B.	No. of units for which- data was tabulated	6205		25717	
		<u>Total</u>	<u>Per unit</u>	<u>Total</u>	<u>Per unit</u>
C.	Investment in fixed assets (Rs.in lakhs)	4408	0.710	38751	1.507
	Investment in Plant and Machinery (Rs.in lakhs)	2193	0.353	21120	0.821
D.	Employment (Nos.)	126514	20	169309	7
E.	Gross Production of output (Rs.in lakhs)	11565	- -	113691	- -
F.	Net value added (Rs.in lakhs)	3618	0.585	22693	0.880

Source : Development Commissioner (SSI), *Report on the Second All-India Census of Small Scale Industrial Units - Kerala, Vol.1, 1992.*

Table 2.17

Growth of Small Industry in Kerala
(1972-73 to 1987-88)

Indicators	Kerala			All-India			%share of Kerala in All-India	
	72-73	87-88	ACGR	72-73	87-88	ACGR	72-73	87-88
No. of Units in Census Frame (lakh)	0.11	0.38	8.62	2.58	9.87	9.36	4.30	3.80
No. of working units (lakh)	0.07	0.26	9.14	1.59	5.94	9.18	4.40	4.40
No. of units for which data tabulated (lakh)	0.06	0.26	10.27	1.40	5.82	9.96	4.30	4.20
Fixed Assets (Rs.Cr. at 72-73 price)	44	122	7.03	797	2926	9.06	5.50	4.20
Plant & Mach. (Rs.Cr. at 72-73 price)	22	67	7.7	537	1745	8.17	4.00	3.84
Employment (No. lakh)	1.26	1.69	1.98	16.5	36.66	5.45	7.60	4.60
Production (Rs. Cr. at 72-73 price)	116	358	7.8	2603	13528	11.61	4.40	2.60
Net value-added (Rs.Cr. at 72-73 price)	36	72	4.63	841	3230	9.39	4.30	2.22

Source : Development Commissioner (SSI), *Reports on All-India Census of Small Scale Industrial Units, 1977 and 1992.*

the fact that level of mechanisation and automation would progress as years pass by. The State Planning Board statistics also showed an average employment generation of about 7 persons per unit. This would essentially mean that the figure of employment generation has been growing in proportion to the increase in the number of units. Therefore, what has to be ascertained is the number of units actually working (out of the state government figures), as the census survey has taken into account only the working units which would ensure a better accuracy to the findings.

The drastic reduction in the percentage share of Kerala in all-India over the period from 1972-73 to 1987-88, with regard to number of units, fixed assets, employment, production and net value added, is evident from Table 2.17. This shows that the growth of the SSI sector in Kerala was out of tune with the all-India trend.

Another observation from Table 2.17 is that the average percentage investment in fixed assets other than plant and machinery was found to be higher in the case of Kerala (48

per cent) when compared to the national level trend (36 per cent). This, in a way, indicates the high project cost in Kerala due to factors such as high cost of land, high wages of construction labour or could even simply be a tendency on the part of the entrepreneurs to invest more in unproductive assets. This possibility cannot be ruled out in the case of Kerala as there is already a tendency among Keralites to live in independent houses in separate plots with fencing. Barker (1917) had observed that the desire of the people of this region for safe and secure income with minimum of effort and risks makes purchase of landed property and its possession the most popular investment¹⁹.

A different analysis is possible if the per-unit structural features are studied based on the data available from Census Survey (Table 2.18). This analysis on the changes in the structural features of the small-scale units reveal that the average size of Kerala-based units in terms of most of the indicators have been higher than the all-India figures in 1972-73. But, by 1987-88 all these indicators except employment fell below the national averages. At the national level the percentage change in all the indicators except 'production' have been negative. But, this negative change had been drastic in the case of Kerala, where even the per unit 'production' has also been drastically reduced. While at the all-India level the value-added per unit remained more or less the same it fell below by 53 per cent in the case of

Kerala. All these, again confirm that Kerala is composed of small firms with low-technology, low-productivity and yielding only very little value addition.

Table 2.18
Structural Features of the SSI units

Sl. No.	Features (Average)	Kerala			India		
		1972-73	87-88	%change	1972-73	87-88	%change
1.	Fixed asset per unit (Rs. in lakhs)	0.71	0.47	- 34	0.57	0.50	- 12
2.	Plant & Machinery (Rs. in lakhs)	0.35	0.26	- 26	0.38	0.30	- 21
3.	Employment (Nos.)	20	7	- 65	12	6	- 50
4.	Production (Rs. in lakhs)	1.93	1.38	- 28	1.86	2.32	+ 25
5.	Value added (Rs. in lakhs)	0.60	0.28	- 53	0.60	0.55	- 8

Notes : Rs. at 1972-73 prices

Source : Computed from Table 2.16 and 2.17

2.6.3 Key ratios

The performance of the state measured by certain standard performance ratios is given in Table 2.19. The table reveals that the employment generation per Rs.1 lakh worth of invest-

ment is more in Kerala than at an all-India level. It is also found that the level of fixed investment per labour was lower in Kerala than the all-India, both in 1972-73 and 1987-88. However, the percentage change in the Fixed Investment per employment had been much drastic in the case of Kerala. But, the net value addition per employment in Kerala (Rs.4232 in 1987-88) is much lower than at all-India (Rs.8810 in 1987-88). The percentage change in this aspect over the 15 years was also lower than at all-India. This indicates a lower labour productivity in the state. Added to this is the fact that while the net value addition per fixed investment marginally improved at all-India level, it had actually declined in Kerala during the same period. The labour productivity in Kerala, measured in terms of output per employment, grew at a slower rate than at all-India. Capital Productivity in Kerala was lower than at all-India and percentage change over the years has been abysmally low in Kerala (11%) when compared to the all-India figure (41%). All these again indicate that the small sector in the State of Kerala had been giving a poor performance and was definitely at difference with the all-India performance.

Table 2.19

Key performance ratios

Ratio	Kerala			All-India		
	1972-73	1987-88	%change	1972-73	1987-88	%change
1. Employment/ Re.1 lakh of Fixed Asset	28.7	13.85	-50.8	20.70	12.5	-40
2. Fixed Asset/ Employment (Rs.)	3492	7218	+107	4820	7981	+66
3. Net-value-added/ Employment (Rs.)	2857	4232	+47	5096	8810	+73
4. Net Value-added/ Fixed Asset (Rs.lakh)	0.82	0.59	-28	1.06	1.10	+3.8
5. Production/ Employment (Rs.)	9206	21183	+130	15775	36901	+134
6. Production/Fixed Asset (Rs.lakh)	2.63	2.93	+11	3.27	4.62	+41

Note : Rs. in 1972-73 prices.

Source : Computed from earlier tables.

2.6.4 Dominance of Industries

An analysis of the dominance of industries in terms of investment level revealed that up to 61.24 per cent (15479 numbers) of the SSI units in Kerala were below the investment slab of 'up to Rs.1 lakh'. 95.42 per cent of the units were below the investment level of Rs.5 lakhs (Table 2.20). Considering the fact that during 1987-88, the small sector could have investment in plant and machinery alone up to Rs.35 lakhs, this low investment level reveal the weak size-

structure of the small sector in Kerala. This would also mean that the majority of the small-sector units in Kerala remained more like self-employment ventures.

Table 2.20

No. of Units at Various Investment levels
in Kerala

		1987-88			
Sl. No.	Fixed Investment Slabs (Rs. lakhs)	No. of units	% to total	Gross output Rs.in lakhs	% to total
A.	0-1	15749	61.24	23393	20.6
B.	1-2	5462	21.24	19606	17.24
C.	2-3	1889	7.50	10823	9.5
D.	3-5	1399	5.44	13124	11.54
E.	5-10	833	3.29	17233	15.15
F.	10-20	258	1.00	13556	11.92
G.	20 and above	130	0.005	15993	14.06
Total		25717	100.	113729	100

Source : As in Table 2.16

An analysis of the dominance of industry by the 2 - Digit NIC²⁰ Industry group is shown in Table 2.21. It is evident from the table that the major industrial base of the small sector in Kerala as on 1987-88 consisted of mainly food products, wood products, rubber and plastics, metal products, and paper products and printing. All these constituted about 54.33 per cent of the number of units, 70.64 per cent of the total production, and 64.24 per cent of the investment. Thus, the presence of modern industries is not significantly felt in the small industrial sector in Kerala. An earlier analysis

done on the industrial base in Kerala (Subrahmanian, 1994) had already shown that Kerala has a lopsided industrial structure with its base comprising a set of resource-based industries and that demand based (foot loose) industries and capital goods related industries do not have a fair share. This analysis was based on the concept of Location Quotient²¹ (Table 2.22).

Table 2.21
Dominance of Industries at 2 Digit NIC by Production in Kerala

1987-88								
2 - Digit NIC Industry Group	Description of units	Total no. of units	Percentage to total (1987-88)	Fixed Invest- ment (Rs. lakhs)	% age to Total	Production Total (Rs. lakhs)	Percentage to total	Net value added per unit (Rs.'000)
1	2	3	4	5	6	7	8	9
20 and 21	Food Products	4,791	18.63	7441	19.20	44886	39.48	121
27	Wood Products	3,812	14.82	5400	13.93	17577	15.46	78
30	Rubber and Plastic Products	2,679	10.42	4681	12.08	10360	9.11	87
31	Chemical and Chemical Products	1,334	5.19	2437	6.29	8666	7.62	155
34	Metal Products	2,691	10.46	3482	8.99	7128	6.27	68
32	Non-Metallic Mineral Products	1,837	7.14	3542	9.14	5616	4.94	101
28	Paper Products and Printing	2,445	9.51	3892	10.04	5220	4.59	47
36	Electrical Machinery/Apparatus	374	1.45	862	2.22	2495	2.19	231
26	Hosiery and Garments	1,202	4.67	844	2.18	2384	2.10	57
35	Machinery and Parts Except Electrical	960	3.73	1405	3.63	1945	1.71	76
33	Basic Metal Products	250	0.97	742	1.92	1887	1.66	128
97	Repair Services	2,124	8.26	2333	6.02	1739	1.53	44
OT	Other Services and Products	154	0.60	376	0.97	980	0.86	171
37	Transport Equipment and parts	204	0.79	457	1.18	953	0.84	168
38	Miscellaneous Mfg. Industries	202	0.79	264	0.68	680	0.60	74
22	Beverages, Tobacco and Tobacco Products	443	1.72	424	1.10	572	0.50	77
23	Cotton Textiles	8	0.03	25	0.06	352	0.31	413
29	Leather and Leather Products	191	0.74	94	0.24	218	0.19	19
99	Services not else classified	10	0.04	41	0.11	29	0.03	40
25	Jute, Hemp and Mesta Text.	3	0.01	3	0.01	3	0.00	33
24	Wool, Silk and Synth. Fibre Text	3	0.01	5	0.01	2	0.00	33
Total		25,717	100.00	38750	100	1,13,692	100.00	88

Source : As in Table 2.16

Table 2.22

Kerala's Industrial base

(1985-86)

2-Digit NIC Groups	Percentage Share in Total Factory		Location Quotient	
	Emp	VA	Emp	VA
20 and Food products	30.06	8.78	2.33	1.15
21				
22 Beverages, tobacco	7.96	3.00	1.71	1.54
23 Cotton textiles	7.75	5.08	0.65	0.80
24 Wool, silk, synthetic fibre	0.34	0.27	0.34	0.74
26 Textile products	2.66	3.68	1.72	3.83
27 Wood and wood products	5.35	1.57	5.24	3.73
28 Paper and paper products	3.80	5.38	1.02	1.97
29 Leather, fur., etc. products	0.05	-0.02	0.05	0.03
30 Rubber, plastic, etc.	3.67	11.41	1.45	1.43
31 Chemical and chemical products	7.26	15.35	1.01	1.23
32 Non-metal mineral products	6.56	3.97*	1.14	0.83
33 Basic metal and alloys	1.88	2.69	0.26	0.26
34 Metal products	1.77	1.56	1.45	0.69
35 Machinery, machine tools	2.01	2.66	0.34	0.33
36 Electrical machinery, etc.	4.20	6.05	0.90	0.95
37 Transport equipment, etc.	2.03	2.33	0.32	0.36
38 Other manufacturing industry	0.85	0.86	0.88	0.52
40 Electricity	8.51	23.22	0.82	1.78
42 Water works	0.14	0.17	0.93	2.13
97 Repair services	3.11	1.90	1.25	1.43
Total	100.00	100.00	- -	- -

Note : See Notes and References 21 at the end of this chapter.

Source : Adapted from Subrahmanian, 'Development Paradox in Kerala : Analysis of Industrial Stagnation', *Economic and Political Weekly*, September 15, 1990.

Apparently, this region continued to specialise in local resource-based industries. Ironically enough, the value addition per unit in the case of these major resource-based industries was low- Rs.78,000 per unit in the case of wood products and Rs.87,000 per unit in the case of rubber (and plastic) products (see Table 2.21). As against this, the value addition in the case of cotton textiles which represent only 0.03 per cent in the total number of units and with an investment of 0.06 per cent of the total had the highest value addition per unit (Rs.4,13,000). An analysis of the structural changes that have taken place in various industry groups also revealed that the industrial base had undergone very little change from the period 1972-73 to 1987-88 (Table 2.23). The local resource based products viz; food products, wood products and rubber and plastics, continued to dominate the scene. In the group rubber and plastics, it could very well be assumed that rubber product would be the dominant one. In fact, this clubbing of rubber and plastics should no longer be continued as each one of them offers wide and discrete avenues of commodity production.

Table 2.23

**Structural changes in the Small Industrial Sector in Kerala
(1972-73 to 1987-88)**

Sl. No.	2 - Digit NIC Industry Group	Description of units	1972-73		1987-88	
			Production Total (Rs.lakhs)	Percentage to total	Production Total (Rs.lakhs)	Percentage to total
1.	20 and 21	Food Products	4893	42.26 (1)	44886	39.48 (1)
2.	34	Metal Products	1320	11.41 (2)	7128	6.27 (5)
3.	27	Wood Products	1317	11.39 (3)	17577	15.46 (2)
4.	30	Rubber and Plastic Products	865	7.48 (4)	10360	9.11 (3)
5.	31	Chemical and Chemical Products	830	7.18 (5)	8666	7.62 (4)
6.	28	Paper Products and Printing	440	3.80 (6)	5220	4.59 (7)
7.	32	Non-Metallic Mineral Products	429	3.71 (7)	5616	4.94 (6)
8.	33	Basic Metal Products	283	2.45 (8)	1887	1.66 (11)
9.	35	Machinery and Parts except electric.	272	2.35 (9)	1945	1.71 (10)
10.	26	Hosiery and Garments	277	2.18 (10)	2384	2.10 (9)
11.	37	Transport Equipment and parts	194	1.68 (11)	953	0.84 (14)
12.	36	Electrical Machinery/Apparatus	194	1.68 (12)	2495	2.19 (8)
13.	97	Repair Services	103	0.89 (13)	1739	1.53 (12)
14.	38	Miscellaneous Mfg. Industries	60	0.52 (14)	580	0.60 (15)
15.	22	Beverages, Tobacco and Tobacco Products	56	0.48 (15)	572	0.50 (16)
16.	0T	Other Services and Products	NA	NA	980	0.86 (13)
17.	29	Leather and Leather Products	31	0.27 (16)	218	0.19 (17)
Total			11,564	100.00	1,13,692	100.00

- Notes : (1) Total values in Rs.lakhs
 (2) Per Unit values in Rs.1000
 (3) NA : Not available
 (4) Figures in bracket indicate the ranking

Source : As in Table 2.17

2.6.5 Capacity Utilisation and Productivity

The industry-wise capacity utilisation and also the corresponding net value added per Rs.1 lakh of investment is shown in Table 2.24. The average capacity utilisation was found to be 42.6 per cent as against the national average of 51 per cent. The highest capacity utilisation was observed in the case of cotton textiles (84.4%) which also yielded the highest rate of net value addition. Unfortunately, the investment in this sector was a minuscule 0.06 per cent of the total SSI investment in the state. The other six industry groups which came top in terms of investment, viz; food products, wood products, rubber and plastics, paper products, non-metallic mineral products and metal products, had comparatively low capacity utilisation which was less than 50 per cent and ranging from 38 per cent to 49 per cent.

The rate of value addition in relation to investment was also comparatively low in these industry groups except in the case of food products. A further analysis showed that the maximum investment in the small sector of Kerala had taken place in those sectors which have low capacity utilisation (Table 2.25).

Table 2.24

Capacity utilisation of Industry groups

Sl. 2 - Digit No. NIC Industry Group	Description	No. of Units	Capacity (Rs.lakhs)	Production 1987-88 (Rs.lakhs)	Capacity utilisa- tion	Net Value added per Rs.1 lakh Fixed investment (Rs. lakhs)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
							Ker. Ind.	
1.	20 and 21	Food Products	4791	118697	44886	37.8	0.8	1.0
2.	22	Beverages, Tobacco and Tobacco Products	443	1259	572	45.4	0.8	2.0
3.	23	Cotton Textiles	8	417	352	84.4	1.3	1.0
4.	24	Wool, Silk & Synth. Fibre text	3	5	1	20.0	0.2	2.0
5.	25	Jute, Hemp and Mesta Textiles	3	15	3	20.0	0.3	1.0
6.	26	Hosiery and Garments	1202	8457	2384	28.2	0.8	2.0
7.	27	Wood Products	3812	38700	17577	45.4	0.5	1.0
8.	28	Paper Products and Printing	2445	10945	5220	47.7	0.2	1.0
9.	29	Leather and Leather Products	191	403	218	54.1	0.4	3.0
10.	30	Rubber and Plastic Products	2679	21689	10359	47.8	0.5	1.0
11.	31	Chemical and Chemical Products	1334	16824	8667	51.5	0.8	2.0
12.	32	Non-Metallic Mineral Products	1837	11489	5617	48.9	0.5	1.0
13.	33	Basic Metal Products	250	4657	1887	40.5	0.4	1.0
14.	34	Metal Products	2691	15279	7129	46.7	0.5	1.0
15.	35	Machinery and Parts except electrical	960	4031	1944	48.2	0.5	1.0
16.	36	Electrical Machinery/Apparatus	374	4771	2495	52.3	1.0	1.0
17.	37	Transport Equipment and parts	204	1951	953	48.8	0.7	1.0
18.	38	Miscellaneous Mfg. Industries	202	1696	679	40.0	0.5	2.0
19.	97	Repair Services	2124	3415	1739	50.9	0.4	-
20.	99	Services not else classified	10	54	29	53.7	0.1	-
21.	0T	Other Services and Products	154	1985	979	49.3	-	-
		Total	25,717	2,66,739	1,13,692	42.6	0.6	1.1

Source : As in Table 2.16

Table 2.25

Investment made Vs Capacity utilisation

Range of Capacity Utilisation (%)	Investment made (Rs.in lakhs)	Percentage to total investment
up to 30	852	2.2
31-40	7441	19.2
41-50	24665	63.7
51-60	5767	14.85
61-70	0	0
70-80	0	0
81-90	25	0.0006
Total	38750	100

Source : Based on Table 2.24

For instance, 63.7 per cent of the investment were in those industry groups which have only a capacity utilisation within the range of 41-50 per cent. Above the level of 60 per cent, there was only one industry group viz; cotton textiles, which gave 84.4 per cent capacity utilisation though the investment made in this sector was negligible (0.0006%). This analysis again shows the lopsided industrial base of the small sector in Kerala. As regards the low capacity utilisation of practically all industry groups an exploration into the possible reasons has been done through a sample survey. This will be explained in Chapter 3.

The net value addition per Rs.1 lakh of fixed investment for all the industry groups put-together is Rs.0.6 lakh for Kerala as against Rs.1 lakh at all-India,²² which shows the poor Capital Productivity in the state.

2.6.6 Closed Units

Those units in the survey frame list which had continuously remained closed prior to 1.4.1987 and have not been working on the day of enumeration were classified as closed unit.²³ Out of a total number of 38030 registered units in Kerala as on 31st March, 1988, 11763 units (30.9%) were found to be closed (see Table 2.26). The analysis of the reasons for closure of units revealed that the maximum number of units (7244 units, ie; 61.6%) were closed on account of financial problems. This was followed by 1043 units (8.9%) which were closed due to marketing problems. Raw material problems forced 441 (3.7%) units to cease functioning. The All-India Census Survey (1987-88) had not gathered data on sickness among SSI units. However, the state level statistics available from the *Economic Review* during the corresponding period (1987-88) had put the percentage of sickness in small scale industrial sector as 4.6 per cent (2171 out of 47191 registered units).

Table 2.26

Year wise Closure of units and Reasons for Closure

Reasons for Closure	No. of Units Closed during									
	At the end of 1980	1981	1982	1983	1984	1985	1986	1987	1988	Total
1	2	3	4	5	6	7	8	9	10	11
1. Labour Problems	45	7	22	23	27	52	59	75	61	371
2. Dispute amongst owners	31	9	8	11	18	25	26	35	23	186
3. Raw Material Problem	49	10	20	19	45	57	100	103	38	441
4. Finance Problem	844	167	388	348	598	1121	1323	1472	983	7244
5. Marketing Problem	99	16	59	47	86	147	228	213	148	1043
6. Natural Calamity	5	0	0	2	7	4	15	14	13	60
7. More than one reasons (combined)	108	28	62	62	95	158	238	255	179	1185
8. Others	183	32	42	55	91	139	202	297	192	1233
Total	1364	269	601	567	967	1703	2191	2464	1637	11763

Source : As in Table 2.16

2.6.7 Employment

During 1987-88, the small industry in Kerala provided employment to 6.6 persons per unit as against 6.3 persons at all-India level. Industry-wise, food products accounted for the highest portion of employment in small industries in Kerala and at all-India. But, its share in Kerala (26%) was double the all-India figure(13%). This may be mostly on account of the cashew industry and to some extent coconut and spices

processing. But the employment generation per unit in the case of cashew industry is somewhat deceptive as the effective days of employment would be less than for half the year. Other major employment generating industries in Kerala were wood products and non-metallic mineral products.

2.7 Conclusions

It is too well known a fact that the state of Kerala is industrially backward. Therefore, the main objective of the analysis in the foregoing paragraphs was not to establish this point. On the other hand, what was attempted was to take stock of the specific features of the backwardness, especially with regard to the small sector.

Kerala's growth performance in the manufacturing sector as a whole had been below the all-India average. Kerala, with about 3.5 per cent of the country's population, accounts for only 3.2 per cent of the number of factories, 2.6 per cent of fixed investment, 3.2 per cent of employment, 2.6 per cent of gross output and 3.3 per cent of net value added in the manufacturing sector. A look into the recent trends of investment also indicate that Kerala is roughly around the 15th position among all states. Kerala is backward both in terms of the percentage share of number of projects on the anvil and the percentage share of investment in all-India totals. The industrial scenario of Kerala is also characterised by very

low representation of large and medium scale industrial units. Of the existing medium and large industries, the level of private sector participation is only to the tune of 28.6 per cent of the total fixed assets, the major chunk of investment (47.3%) being accounted by the central sector. An industry-group-wise distribution of the 210 large and medium scale manufacturing units in Kerala showed a somewhat lopsided industrial base with heavy concentration in chemical industry.

As far as the small-scale sector was concerned, low capacity utilisation, relatively small size of units (may be uneconomical sizes employing low or obsolete technology), low productivity, etc. are some of the obvious features. The growth record in net value addition and employment generation were also found to be poor when compared with the corresponding all-India figures. Further, the growth in investment, employment, value addition, etc. indicated that the average size of small scale units in Kerala have declined over time. Therefore, the tendency to depict Kerala's industrial progress by citing the number of small-scale units registered is somewhat misleading.

The statistics with regard to medium and large scale industries also show a kind of lopsided industrial base in Kerala characterised by very low private sector participation, thrust in those sectors such as chemical industries which are not very much suitable for the region, and large number of

State Public Enterprises (many of them being sick). Apparently, the overall picture of this sector also do not show any promise in terms of providing a strong industrial base for spawning small enterprises.

Notes and References

1. State Planning Board, *Report of the Task Force on State Public Sector Industries*, Government of Kerala, Trivandrum, May, 1989.
2. K.R.Rajan, *Keralathile Vyavasayangal*, Kerala Language Institute, Trivandrum, 1987, p.3.
3. Government of Kerala, *Facts and Figures*, 1990.
4. State Planning Board, *Economic Review*, Government of Kerala, Trivandrum, 1994.
5. K.K.Subrahmanian, 'Development Paradox in Kerala : Analysis of Industrial Stagnation', *Economic and Political Weekly*, September 15, 1990, pp.2053-58.
6. *Ibid.*
7. CMIE, *Basic Statistics Relating to States of India*, September, 1994.
8. *Ibid.*
9. *Ibid.*
10. CMIE, *The Shape of Things to come : Survey of Investment Projects*, December, 1994.
11. CMIE, *op. cit.*, September, 1994.
12. Kerala State Land Use Board, *An Account of Wasteland in Kerala*, Trivandrum, 1989, p.1.
13. State Planning Board, *Report of the Task Force on Large and Medium Scale Enterprises*, Government of Kerala, Trivandrum, May, 1989.
14. *Ibid.*
15. Vasant Desai, *Entrepreneurial Development*, Vol.3, Himalaya Publishing House, Bombay, 1991.

16. The Industries (Development & Regulation) Act, 1951 defined Small Scale units as those with investment up to Rs.5 lakhs and employing less than 50 persons when using power and less than 100 persons when not using power.
17. Development Commissioner (SSI), *Report on the Second All-India Census of SSI units - Kerala, Vol.1, Government of India, New Delhi, 1992.*
18. See C.S.Prasad, 'Financing Small Industries : Some Recent Changes', *Yojana*, Vol.39, No.3, February 28, 1995.
19. Report on the First Industrial Survey undertaken in the region (which is the present state of Kerala) during 1917-18 under the leadership of Dr.S.G.Barker, a British Officer who was holding charge of the Industries Department.
20. For classifying the data by industry-group the National Industrial Classification (NIC) 1970 evolved by the Central Statistics Organisation has been used. For broad analysis, the two digit level of this classification (i.e. major industry group level) has been adopted.
21. Economic Base is composed of industries with location quotient greater than unity ($LQ > 1$). Location quotient is a measure of relative regional concentration of a given industry compared to total national magnitude (Subrahmanian, 1990). Here, it is expressed in terms of value added :

$$LQ = \frac{V_{ij}}{V_j} \div \frac{V_i}{V_N}, \text{ where } V = \text{Value added}$$

$i = \text{ith industry}$
 $j = \text{jth region}$
 $N = \text{Nation}$

22. *Ibid.*

23. Development Commissioner (SSI), *op. cit.*

Chapter 3

A FOCUS ON THE SMALL-SCALE SECTOR

3.1 Introduction

The analysis done in the earlier chapter indicated a weak and somewhat lopsided industrial base of Kerala. This analysis of the overall industrial scenario was done using secondary data. A complete primary data collection covering the small, medium and large scale industrial sectors would be almost unwieldy for the present study. In the light of this and also due to the reasons stated in the Introduction to the previous chapter, it was felt appropriate to focus on the small-scale industrial sector through a sample survey. Here again, the survey was done at three levels viz; a sample survey of the Small-Scale Industrial (SSI) units in Kerala with a view to identify its structural features and also to identify the problems faced by these units ; a survey of entrepreneurs to understand their background, opinions and also their perception about Kerala as an industrial destination; and finally a survey among potential entrepreneurs which included those who were undergoing Entrepreneurship Development Programmes and a few others who were Non-Resident Keralites. In most of the cases, data pertaining to the industrial unit and the

entrepreneur were collected together. Considering this multi-pronged approach of the field survey it was felt necessary that the survey findings are grouped together under a separate chapter. Accordingly, this chapter has been made in order to give a coherent picture of the field surveys conducted as part of the research work. The basic approach of the field surveys conducted for the study has been detailed in Chapter 1.

3.2 Survey of small-scale industries

A sample survey was conducted on a stratified sample of small-scale industrial units in Kerala selected at random from the units spread over the length and breadth of the state of Kerala. The selection of units was done from the list of industrial units registered with the fourteen District Industries Centres in the state, as per a stratified sampling design, each stratum being formed on the basis of the common characteristic of 'Industry group'. The selection of items for the sample to each stratum was done using simple random sampling and in proportion to size of each stratum in the existing total population.

Objectives of the survey

The primary survey was conducted with the following objectives:

1. To study the investment pattern, type of organisation, capacity utilisation, demand for products, extent of

market coverage, etc. of the small-scale industrial units in Kerala.

2. To identify the problems, if any, faced by the SSI units in the state.
3. To gather views on, adequacy of working capital, government incentives and other support facilities, industrial relations, marketing problems, raw material availability, infrastructural facilities, etc.
4. To make an overall assessment of the size-structure and other characteristic features of the SSI units in Kerala.

Methodology of the survey

A scheme of voluntary registration of small scale units with the District Industries Centres was introduced in 1960 and such registered units were made eligible for different types of assistance by governmental agencies. However, this registration which had two stages viz; provisional registration and permanent registration, is not mandatory. Therefore, a large number of small scale units, especially those in the tiny sector remain unregistered. For the purpose of the survey it was decided to concentrate on those units which are registered with the District Industries Centres. Based on this, the methodology of survey was sequenced as given below.

- Collection of basic industrial statistics and list of units from the District Industries Centres.
- Sample selection as per sampling design explained below
- Pre-testing of questionnaire and modifications
- Visits to industrial units and collection of data
- Processing and analysis of data

Sampling Design

Universe The entire population of 83463 small-scale industrial units registered with the District Industries Centres in Kerala, as at the end of March, 1992 was selected as the Universe.

Sampling frame Considering the fact that the sampling unit would be each small-scale industrial (SSI) unit, the list of industrial units registered with the various District Industries Centres in the state was chosen as the sampling frame.

Sampling procedure and Sample size Based on the source list it was decided to do a stratified sampling based on the existing industry group-wise distribution of number of units in the total population of industrial units. For this purpose a classified list (in terms of industry groups) of SSI units registered in all the districts were collected. It was found that there were variations in the type of classification from one district to another. Therefore, a via media had to be

worked out which gave 15 major industry groups. This was, however, not in line with the national classification quoted in the previous chapter. Further, a few of the District Industries Centres were not having adequate systems and procedures for proper and easy updation of this data in a classified manner. Therefore, what was available was only a near accurate distribution of number of units under each industry group. Samples were subsequently drawn from each stratum in proportion to the size of the stratum. Table 3.1 gives the distribution of registered small-scale industrial units by industry-groups in all the districts put together.

Based on the distribution of units as given in Table 3.1 about 250 units were contacted so that a sample size of at least 200 units is obtained. A sample of this size ensured representation from all industry groups. Out of the 250 units which were contacted, 29 units were found to be closed or not in operation.

Table 3.1

Distribution of Registered SSI units in Kerala
by Industry Group

Sl. No.	Industry-group	No. of units	% to total
1.	Food and Beverages	11685	14
2.	Rubber	5842	7
3.	Plastic products	1669	2
4.	Textiles and Garments	8346	10
5.	Wood-based	7094	8.5
6.	Paper and Printing	2504	3
7.	Leather products	584	0.7
8.	Chemical including Drugs & Pharmaceuticals	5258	6.3
9.	Non-metallic mineral products	2504	3
10.	Metal products	3756	4.5
11.	General Engineering	10850	13
12.	Electrical and Electronics	4173	5
13.	Repairs and Servicing	12520	15
14.	Building materials	3340	4
15.	Miscellaneous	3338	4
	Total	83463	100

Sources : 1. Official records of Directorate of Industries and Commerce.
2. Department of Economics and Statistics, *Statistics for Planning*, 1993.

Pre-testing of questionnaires

For the purpose of data collection a schedule was prepared. The schedule was pre-tested in 15 industrial units by conducting a pilot study and suitable modifications were made.

During the pre-testing period it was found that in several cases entrepreneurs were not available when actual visits were made to the units. While repetitive visits were possible in the case of nearby districts, it was felt that in the other districts, whenever entrepreneurs or key persons were not available for interview, questionnaires should be left with stamped envelopes so that they could give the feedback at their convenience (Preliminary data, however, were recorded at the time of visit). With this in mind the schedule was slightly modified so that it also served the purpose of an easily comprehensible questionnaire for getting the feedback by mail.

Data Collection

Data collection was done through schedules and questionnaires from 203 small-scale industrial units as per the sampling plan explained earlier (see Appendix 1). While data from 184 units were collected through schedules during the actual visit to the industrial units, data from the remaining 19 units were obtained through mail after preliminary data were collected during the visits. The entire survey among SSI units was done over a period of about eight months. Data from 203 units have been used for the analysis (Table 3.2).

Table 3.2

Sample Size of SSI units
(Distribution by Industry Group)

Sl. No.	Industry group	No. of units
1.	Food and Beverages	28
2.	Rubber	14
3.	Plastic products	4
4.	Textiles and Garments	20
5.	Wood based	17
6.	Paper and Printing	6
7.	Leather products	2
8.	Chemical	13
9.	Non-metallic mineral products	6
10.	Metal products	9
11.	General Engineering	27
12.	Electrical and Electronics	10
13.	Repairs and Servicing	31
14.	Building materials	8
15.	Miscellaneous	8
	Total	203

Source : Table 3.1

Processing and analysis of data

The data collected through mail were initially scrutinised to make it compatible with those collected through personal visits. Though about 28 units responded to the survey by mail, data pertaining to only 19 units could be utilised as the sample had to be selected on a stratified manner. Further, in the filled up questionnaires, some were having omis-

sions and minor deceptive data. A few questionnaires were obviously beyond use. Such feed-backs were discarded. In some cases the units were again contacted through letter or over phone for further clarifications. Thus, all the filled-up questionnaires including the schedules used for personal interviews were made more or less uniform for the purpose of data analysis. These questionnaires were pre-coded ones. Further analysis of the data was carried out using standard SPSS package with the help of a computer. The findings of the analysis are given below.

3.2.1 Industrial base in the small-sector

The industrial base of the state in terms of the distribution of the number of units under various industry groups was analysed first. From the figures in Table 3.1 itself, it is clear that the percentage distribution of units under various industry groups more or less matches with the distribution as obtained from the Census Survey (see Chapter 2). Though, the classification is slightly different, here also it is seen that in the manufacturing sector, Food and Beverages constituted the maximum number of units (14%) followed by General Engineering (13%), and Textiles and Garments (10%). Wood-based (8.5%), Rubber (7%), Chemical Industries including Drugs and Pharmaceuticals (6.3%), and Electrical and Electronics (5%) forms the next cluster in the range of 5 to 8.5% of the total number of units. These figures as at the end of March, 1992 indicate a slight change in the industrial base

from what was seen from the 1987-88 Census Survey. However, the major chunk of the industries continued to be those depending on the local resources. Nevertheless, there was, an increase in the presence of 'foot loose' (demand-based) industries such as General Engineering and modern industries in Electronics and Electrical sectors. A bifurcation made between Rubber and Plastic¹ (another 'foot loose' industry) has revealed that the percentage of plastic industries was less than half that of rubber. The number of service industries was found to be high (15%) as against the figure of about 9 per cent indicated by the Census Survey. This, however, matches with the overall trend in the phenomenal growth of the service sector observed in Kerala during the past few years.

3.2.2 Size of the units

An analysis of the investment levels in the units surveyed revealed that 75.4 per cent of the units were below the level of Rs.5 lakhs of fixed investment. Only 3 per cent of the units had an investment level above Rs.50 lakhs. Within the limit of Rs.5 lakhs, 44.3 per cent of the units were having fixed investment only up to Rs.1 lakh. All these showed the weak size-structure of the small sector indicating that they are somewhat akin to self-employment ventures. The details are given in Table 3.3.

Table 3.3

Distribution of SSI Units Among Various Investment Levels

Sl. No.	Investment level	Units	
		Nos	Per cent
1.	Less than Rs 50,000	51	25.1
2.	Rs 0-50 to Rs 1 lakh	39	19.2
3.	Above Rs 1 lakh, up to Rs 2 lakhs	30	14.8
4.	Above Rs 2 lakhs, up to Rs 5 lakhs	33	16.3
5.	Above Rs 5 lakhs, up to Rs 15 lakhs	34	16.7
6.	Above Rs 15 lakhs, up to Rs 50 lakhs	10	4.9
7.	Above Rs 50 lakhs	6	3.0
Total		203	100

An industry group-wise analysis is given in Table 3.4. Since the selection was based on stratified sampling, the analytical explanations about the industrial base given in 3.2.1 would automatically reflect in this table also. However, from this table it can be seen that investments above Rs.15 lakhs have representation in 10 industry groups. Out of this, only four industry groups, viz; Food and Beverages, Rubber, Chemical and, Electrical and Electronics had more than one unit in the investment range above Rs.15 lakhs. Plastics, a highly potential 'foot loose' industry has not shown up significantly in the sample survey. Out of the four plastic based units three of them were within the investment limit of Rs.15 lakhs. Out of the 20 'Textiles and Garments' units, 13 units (65%) were within the limit of Rs.1 lakh fixed investment. Out of this, 9 units were having fixed investment below Rs.50,000. In other words, these were

essentially garment making units which were only slightly better versions of a tailoring shop. These units were, by and large, producing readymade garments for the local market. Six industry-groups viz; Food and Beverages, Rubber, Wood based, Chemical, General Engineering and Electrical and Electronics had one industrial unit each in the investment range 'greater than Rs.50 lakhs'. In each of these cases this meant only a representation of 3.6 per cent to 10 per cent of the number of units surveyed in the respective industry groups.

Table 3.4

Distribution of SSI units : Industry Group by Investment

(No. of units)

Sl. No.	Industry group	Investment (Rs.in lakhs)							Total
		(1) <0.5	(2) 0.5 to 1.00	(3) > 1.00 upto 2	(4) >2 upto 5	(5) >5 upto 15	(6) > 15 upto 50	(7) > 50	
1.	Food & Beverages	8 (28.6)	8 (28.6)	2 (7.1)	1 (3.6)	6 (21.4)	2 (7.1)	1 (3.6)	28
2.	Rubber	0	2 (14.3)	0	4 (28.6)	5 (35.7)	2 (14.3)	1 (7.1)	14
3.	Plastics	0	0	1 (25.0)	1 (25.0)	1 (25.0)	1 (25.0)	0	4
4.	Textiles & garments	9 (45.0)	4 (20.0)	4 (20.0)	1 (5.0)	2 (10.0)	0	0	20
5.	Wood-based	4 (23.5)	2 (11.8)	0	7 (41.2)	3 (17.6)	0	1 (5.9)	17

(Contd.)

(Table 3.4 Contn.)

Sl. No.	Industry group	Investment (Rs.in lakhs)							Total
		(1) <0.5	(2) 0.5 to 1.00	(3) > 1.00 upto 2	(4) >2 upto 5	(5) >5 upto 15	(6) > 15 upto 50	(7) > 50	
6.	Paper & Printing	1 (16.7)	0	1 (16.7)	1 (16.7)	2 (33.3)	1 (16.7)	0	6
7.	Leather	2 (100)	0	0	0	0	0	0	2
8.	Chemical	2 (15.4)	1 (7.7)	1 (7.7)	6 (46.2)	1 (7.7)	1 (7.7)	1 (7.7)	13
9.	Non-metallic minerals	1 (16.7)	0	1 (16.7)	1 (16.7)	2 (33.3)	1 (16.7)	0	6
10.	Metal products	1 (11.1)	1 (11.1)	2 (22.2)	2 (22.2)	3 (33.3)	0	0	9
11.	Gen. Engg.	5 (18.5)	8 (29.6)	7 (25.9)	4 (14.8)	2 (7.4)	0	1 (3.7)	27
12.	Electrical & Electronics	1 (10.0)	2 (20.0)	1 (10.0)	3 (30.0)	1 (10.0)	1 (10.0)	1 (10.0)	10
13.	Repairs & Servicing	12 (38.7)	10 (32.3)	6 (19.3)	2 (6.5)	1 (3.2)	0	0	31
14.	Building materials	1 (12.5)	1 (12.5)	2 (25.0)	0	4 (50.0)	0	0	8
15.	Miscellaneous	4 (50.0)	0	2 (25.0)	0	1 (12.5)	1 (12.5)	0	8
	Total	51	39	30	33	34	10	6	203
	%	25.1	19.2	14.8	16.3	16.7	4.9	3.0	100

Note : Figures in brackets are percentages to the row totals.

3.2.3 Type of organisation

An analysis of the type of organisation revealed that 74.9 per cent of the units surveyed were proprietary concerns. 11.3 per cent of the units were partnership firms and 6.9 per cent private limited companies. Only 1.0 per cent of the units were public limited companies. Co-operative societies showed a significant presence of 5.9 per cent (Table 3.5). Though the predominance of proprietary concerns itself may not mean much, this coupled with high incidence of low level of investment underscores the earlier argument that majority of the industrial units were only a slightly better version of self-employment ventures.

Table 3.5

Type of Organisation

Sl. No.	Type	No. of units	Percent
1.	Proprietary	152	74.9
2.	Partnership	23	11.3
3.	Pvt. Ltd.	14	6.9
4.	Public Ltd.	2	1.0
5.	Co-operative Society	12	5.9
	Total	203	100.0

3.2.4 Nature of activity and period of establishment

As far as the nature of activity was concerned, it was found that 72.9 per cent of the units surveyed were manufacturing units, 14.8 per cent service units and 12.3 per cent doing job works (Table 3.6). An attempt was made to relate the number of units and their nature of activity with the period of establishment, with the objective of identifying specific trends if any in the growth of small-sector after the economic liberalisation in 1991, during the decade prior to liberalisation and also before 1981. This analysis revealed that majority of the units (57.1%) in the sample were set up during the 1980s. One major observation is that, in the sample, the number of units set up over a short period of two years (56 units) after 1991 was almost double the number of units which were found to have been established before 1981 (31 units) (see Table 3.6). While this is a reflection of the rapid growth in the number of small scale units, its actual effect will be known only when the average investment levels are also considered (Table 3.7).

Table 3.6

Nature of Activity and Year of Establishment

(Number of units)

Year of Establishment	Activity			Total
	Manufacturing	Service	Job work	
Before 1981	28 (90.3)	3 (9.7)	- -	31 [15.3]
1981-1991	79 (68.1)	17 (14.7)	20 (17.2)	116 [57.1]
After 1991	41 (73.2)	10 (17.9)	5 (8.9)	56 [27.6]
Total	148 (72.9)	30 (14.8)	25 (12.3)	203 (100)

Notes : 1. Figures in () brackets are percentages to row total
 2. Figures in [] brackets are percentage to column total

As seen from Table 3.6, over a period of about 12 years (till about 1993), there was a reduction in the percentage of manufacturing units set up during the three periods indicated. The percentage of job working units in the sample units set up before 1981 was zero. The percentage of service units has gradually increased from a level of 9.7 to 17.9. The percentage representation of job working units has, however, come down after 1991. This may be due to the shifting that has taken place from the conventional job working units into modern electronic-based (mostly office automation and electronic repairs and services) that has taken place during the nineties.

3.2.5 Investment trend

An analysis of the trend in the level of investment over the years revealed that out of the total number of units established before 1981, the maximum number of units were in the investment level of Rs.50,000 to Rs.1 lakh followed by the range Rs.2 lakhs to Rs.5 lakhs. In the next decade, the percentage of units in the lowest range of 'Less than Rs.50,000/-' drastically increased from 9.7 per cent in the previous time period to 25.9 per cent and also became the investment range with the maximum number of units. This was followed by equal representation of, 20 units (17.2 %) each in the ranges of 'Rs.50,000/- to Rs.1 lakh' and 'Rs.2 lakhs to Rs.5 lakhs'. After 1991, the percentage of units which have fallen in the lowest range again increased to 32.1. At the same time, the percentage of units in the highest range (ie; above Rs.50 lakhs) also gradually decreased from 6.5 before 1981 to 1.8 after 1991. Though, the total number of units in all the three time periods are not equally balanced, the picture obtained from the aforesaid analysis is a declining trend in the level of investment. This, in a way, indicates that, though there is a drastic increase in the number of SSI units being set up, majority of them were moving closer to the level of self-employment ventures with least possible investment. This argument is substantiated by the fact that in the total population of SSI units in Kerala 'Repairs and Servicing' constitute the maximum number of

units (15%) which normally require only very low level of investment.

Table 3.7

Trend in Investment Levels in Relation to the Period of Establishment

	Number of units in different investment levels *							Total
	1	2	3	4	5	6	7	
Before 1981	3 (9.7)	9 (29.0)	5 (16.1)	8 (25.8)	4 (12.9)	0	2 (6.5)	31 (100)
1981-1991	30 (25.9)	20 (17.2)	18 (15.5)	20 (17.2)	19 (16.4)	6 (5.2)	3 (2.6)	116 (100)
After 1991	18 (32.1)	10 (17.9)	7 (12.5)	5 (8.9)	11 (19.6)	4 (7.1)	1 (1.8)	56 (100)

Notes : 1. * Numbers 1 to 7 corresponds to investment levels as indicated in Table 3.3.

2. Figures in brackets are percentages to row totals.

3.2.6 Reasons for selection of projects

With regard to the reasons for the selection of projects, in the case of 51.2 per cent of the units, project or product selection was mostly on the basis of promoter's experience. 25.6 per cent claimed that their decision was based on local market demand. Locally inherited skill prompted 15.3 per cent of the entrepreneurs to start industrial ventures. 8.9 per cent of the entrepreneurs were simply joining ancestral businesses and were not starting anything new. The details are given in Table 3.8.

Table 3.8

Reasons for Selection of Project
(Given in the order of ranking)

Sl. No.	Reasons	No. of cases indicated	% to total units surveyed
1.	Experience	104	51.2
2.	Local market demand	52	25.6
3.	Local skill inherited	31	15.3
4.	Availability of raw-materials	24	11.8
5.	Ancestral business	18	8.9
6.	Due to government incentives and subsidies	11	5.4
7.	Others	4	2.0

About 50 per cent of those who had selected the projects based on their experience or skill had earned experience in different lines by working in other states or Gulf countries. Only 5.4 per cent of the units were set up taking into account government incentives and subsidies. Availability of raw-materials prompted only 11.8 per cent of the entrepreneurs to start industrial ventures. From the above, it could be concluded that, 'own experience', 'local market demand' and 'inherited local skill' were the three major factors which have influenced the selection of projects. Under the reason 'others', opportunities for export and general demand (not local demand) were indicated.

3.2.7 Reasons for selection of location

Data with regard to the factors that have influenced locational decisions of the units surveyed were collected (Table 3.9). It was observed that proximity to residence (71.4% cases) and availability of land (46.8% cases) were the two major factors which influenced locational decisions. Therefore, it may be inferred that for small-scale industries, locational decision is more a matter of convenience, provided other basic factors are sufficiently conducive. For example, entrepreneurs who have responded to the survey have not undermined the importance of the other factors. In fact, a good number of them stressed on the importance of availability of land. The other factors such as skilled labour, proximity to raw material sources, transport facilities and roads, skilled labour and proximity to market were found to have more or less equal importance. Yet another observation was the weightage assigned to the presence of other units which would provide the advantage of inter-industry linkages. The existence of service facilities were important for those units employing modern equipment.

Table 3.9

Locational Factors
(Given in the order of ranking)

Factors	No. of Cases indicated	% to to- tal units surveyed
1. Proximity to residence	145	71.4
2. Availability of land	95	46.8
3. Skilled labour	63	31.0
4. Proximity to raw-materials sources	54	26.6
5. Transport facilities and roads	50	24.6
6. Proximity to market	48	23.6
7. Presence of other units in the nearby areas	30	14.8
8. Availability of service and repair facilities	8	3.9

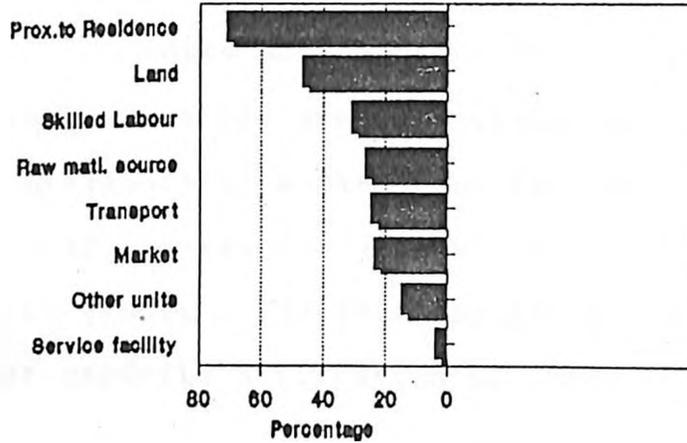
Note : The figures are not mutually exclusive as a combination of factors have been indicated in each case.

A graphical representation of the above locational factors shown in Fig. 3.1. It could be seen that, in the small-sector, apart from the major factor of nearness to own residence or native place, a combination of various other factors, with certain specific factors acting strongly, influence locational decisions. This argument points to the necessity of the creation of a healthy agglomeration of industries by way of industrial clusters. This is, in fact, possible in the new context of the growing importance of foot loose industries as against the earlier resource-based approach. The growth of such clusters would provide pools of trained labour (as in

the case of Tirupur, the major centre for hosiery production and export) and the development of specialised suppliers. In the modern context, the ability to work close with customers and vendors would be more important than transportation costs. Location in a complex will be more advantageous to those new firms which provide custom manufacturing services and which serve as satellite suppliers. Apart from this, the benefit of agglomeration would also facilitate creation of common infrastructural facilities. In the context of Kerala, the creation of such clusters would definitely face impediments such as shortage of land, high land cost, and high density of population. This demands a 'deviation' (see chapter 6) from the usual approach of developing industrial clusters. Two possible approaches in this regard are : (a) encourage small-scale units to function from 'flatted-type' buildings constructed to accommodate a variety of inter-linked industrial units (b) wherever possible encourage household units functioning from own residential compounds. Here, the 'Sevana Model'² of industrial clustering could be seriously considered. However, such clustering could be thought about mostly in hi-tech areas or in non-polluting activities.

Fig. 3.1

Locational Factors



3.2.8 Capacity utilisation

With reference to a firm or industry, capacity is defined as the maximum output it is capable of producing at a given time with its existing stock of factors of production. The capacity utilisation rate is then expressed as the ratio of actual output achieved to its full-capacity output.³ Therefore, capacity utilisation is a vital measure with regard to the performance of an industrial unit. From this point of view, data with regard to the capacity utilisation of the units were collected. The analysis was done using the average capacity utilisation during the most recent three to five years of operation depending on when the unit was actually

set up. Capacity utilisation in the first year of operation was avoided. The details are given in Table 3.10. Majority of the units (89.6%) were operating below a capacity utilisation of 80%. 50.7 per cent of the units were operating below 60 per cent capacity utilisation. Ironically enough, 74.87 per cent of the units had reported that they have reasonably good demand for their products (Table 3.13). The average capacity utilisation worked out for each industry group revealed that 'Repairs and Services' recorded the lowest capacity utilisation (43.23%). Building materials recorded the highest capacity utilisation (69.38%) followed by rubber (66.14%).

Detailed analysis showed that there are a variety of reasons such as working capital shortage, too much dependence on local market, insufficient power, etc. for the high incidence of low capacity utilisation. Entrepreneurs of those units with capacity utilisation less than 60 per cent were asked to rank the reasons which resulted in the under-utilisation of their capacities. The overall ranking based on the responses is shown in Table 3.11.

Table 3.10

**Distribution of SSI Units according to Levels of
Capacity Utilisation**

Sl. No.	Industry group	No. of units	less than 20%	20-39%	40-59%	60-79%	80% and above	Average cap. util.
1.	Food & Beverages	28	0	4	8	15	1	55.04
2.	Rubber	14	0	0	5	5	4	66.14
3.	Plastics	4	0	2	0	2	0	50.50
4.	Textiles & garments	20	0	1	8	7	4	61.20
5.	Wood based	17	0	0	7	8	2	61.41
6.	Paper & Printing	6	0	1	5	0	0	47.00
7.	Leather	2	0	0	1	1	0	55.00
8.	Chemical	13	0	2	6	4	1	51.31
9.	Non-metallic minerals	6	0	0	4	1	1	59.50
10.	Metal products	9	1	0	1	6	1	58.89
11.	General Engineering	27	0	1	13	13	0	56.11
12.	Electrical & Electronics	10	0	1	5	1	3	61.40
13.	Repairs & Servicing	31	8	2	10	10	1	43.23
14.	Building materials	8	0	0	2	4	2	69.38
15.	Miscellaneous	8	0	0	5	2	1	60.75
	Total	203	9	14	80	79	21	56.12
	%	100	4.4	6.9	39.4	38.9	10.3	—

Table 3.11

Reasons for Under-utilisation of Production Capacity

Reasons	Rank
Working capital problems	1
Marketing difficulties	2
Power shortage	3
Competition	4
Scarcity of skilled labour	5
Raw-material shortage	6
Machine break-down	7
Spares shortage/lack of service facilities	8
Unfavourable government policies	9
Low demand for products	10
Labour troubles	11
Other reasons	12

For analytical purposes, the industry-group wise results of the ranking was also studied. Working capital shortage was experienced by all the sectors. The major problem for Food and Beverages group was competition and so was the case with Rubber, and Textiles and Garments. Power was yet another common problem. Majority of the General Engineering, Electrical and Electronics and Plastics units ranked shortage of power as the major problem for their low capacity utilisation. In other words, those units in the modern industrial sectors found power shortage as a major impediment to their success.

The ranking of industry-groups based on average capacity utilisation (see Table 3.15) revealed that the group 'Building materials' gave the highest capacity utilisation. Though not in very clear terms, this trend could also be linked to the civil construction boom in Kerala, mostly associated with residential and commercial building constructions.

Having classified the units into two groups of those having 'above average' (60% and above) and 'below average' (less than 60%) capacity utilisation, the logistic regression was applied taking into account the two categories of 'high' and 'low'. In a similar fashion, units were also grouped into two categories based on the 'adequacy' and 'inadequacy' of working capital (see 3.2.14). In such a situation, it was felt that logistic regression would yield better results, especially as some of the variables are categorical in nature, either with or without ordering. The results showed that in the case of working capital the relationship with capacity utilisation is significant at 5 per cent level. Power availability, on the other hand, was unable to show its influence on capacity utilisation as it was not statistically significant (see Table 3.12).

Table 3.12

**Logistic Regression of Capacity Utilisation on
Working Capital and Power availability**

Variable	B	S.E	Wald	df	Sig.	R	Exp(B)
Working Capital	1.0164	.3166	10.3075	1	.0013	.1867	2.7631
Power	-.2740	.3188	.7384	1	.3902	.0000	.7604
Constant	-1.3281	.5167	6.6073	1	.0102		

The above finding more or less matches with the ranking assigned to working capital by the entrepreneurs as a reason for low capacity utilisation.

3.2.9 Demand for Products

The data with regard to the demand for products under the various industry-groups were collected both in quantitative and qualitative terms as in certain cases such as the service sector, it was often difficult to quantitatively assess the nature of demand. The ratio of daily or monthly sale to the daily or monthly production was taken as a measure to assess the nature of demand in quantitative terms. Thus, if this ratio was 80 per cent or more, demand was assumed to be 'very good' and 70 per cent to 79 per cent as 'good' and 60 to 69 per cent as average. Anything below 60 per cent was taken as 'low demand'. Wherever quantitative measure was not possible qualitative assessment have been made. The details are given in Table 3.13.

Table 3.13

Distribution of SSI units According to Levels of Demand

(Number of units)

Sl. No.	Industry Group	Demand for Products*				Total
		Very Good	Good	Average	Low demand	
1.	Food & Beverages	9	12	6	1	28
2.	Rubber	9	4	1	0	14
3.	Plastics	2	0	2	0	4
4.	Textiles & Garments	13	6	1	0	20
5.	Wood based	3	10	4	0	17
6.	Paper & Printing	1	3	2	0	6
7.	Leather	0	2	0	0	2
8.	Chemicals	4	6	3	0	13
9.	Non-metallic minerals products	3	2	0	1	6
10.	Metal Products	3	3	3	0	9
11.	General Engineering	5	8	14	0	27
12.	Electrical & Electronics	8	0	2	0	10
13.	Repairs & Services	9	12	9	1	31
14.	Building materials	5	3	0	0	8
15.	Miscellaneous	3	4	1	0	8
	Total	77	75	48	3	203
	%	37.93	36.94	23.65	1.48	100

* Indicated by qualitative terms which corresponds to a quantitative measure of a ratio of Daily/Monthly sale to Daily/ Monthly Production.

It was found that majority of the units had either very good demand (37.93% of the units) or good demand (36.94% of the units). Only 1.48 per cent of the units indicated low demand. Apparently enough, no specific sector was showing poor demand. The incidence of low demand in three product groups viz; Food and Beverages, Non-metallic Mineral Products and Repairs and Services, have to be seen as isolated cases as all these three sectors also had substantial number of units having either very good or good demand. But, given the fact that there were about 103 units with capacity utilisation less than 60 per cent, it was required to see if capacity utilisation is observed differently among the different product groups and groups indicating different levels of demand in the sense that the average capacity utilisation in these groups may be different. Subjecting the data to analysis of variance the following results were observed:

1. Average capacity utilisation may be different among various industry (product) groups as seen from the corresponding F value being statistically significant (Table 3.14).
2. Similarly, average capacity utilisation may be different among the different demand level groups as seen from the F value which is significant at 5 per cent levels (Table 3.14).

Table 3.14

**Analysis of Variance of Capacity Utilisation
Among Different Industry and Demand Level Groups**

Source of variation	Sum of Squares	DF	Mean Square	F	Signif. of F
INDUSTRY GROUP	7613.492	14	543.821	1.878	.032
DEMAND	5062.476	3	1687.492	5.827	.001
2 - way interactions	5254.559	24	218.940	.756	.786
Explained	20824.941	41	507.925	1.754	.007
Residual	46624.980	161	289.596		
Total	67449.921	202	333.911		

It was also observed that the average capacity utilisation varies as shown below (Table 3.15).

Table 3.15

**Variation of Average Capacity Utilisation
Among Different Industry Groups**

Mean	Group No.	Description
43.2258	13	Repairs and Servicing
47.0000	6	Paper and Printing
50.5000	3	Plastics
51.3077	8	Chemical
55.0000	7	Leather
55.0357	1 *	Food and Beverages
56.1111	11 *	General Engineering
58.8889	10 *	Metal products
59.5000	9	Non-metallic mineral
60.7500	15 *	Miscellaneous
61.2000	4 *	Textiles and Garments
61.4000	12 *	Electrical and Electronics
61.4118	5 *	Wood based
66.1429	2 *	Rubber
69.3750	14 *	Building materials

Note : (*) denotes groups significantly different from group 13 at 5% level.

In order to see the groups that are significantly different among each other, the Duncan Multiple Range test was done with 'average capacity utilisation' for these industry groups. It was observed that average capacity utilisation for group 13 was lower than that of groups 1, 11, 10, 15, 4, 12, 5, 2 and 14 and that this difference is statistically significant. In other words only the group 13 which represents 'Repairs and Service' had significant difference in capacity utilisation from the other product groups. This is easily explained by the intangibility of capacity utilisation in service activities. However, the difference between Group 13 and groups 6,3,8,7 and 9 was not significant.

Similarly the Duncan multiple range test done with average capacity utilisation for different demand level group revealed that the average capacity utilisation of demand level groups 4 (low demand) is significantly different from that of demand level group 2 (good demand) and group 1 (very good demand). Likewise, the average capacity utilisation of group 3 (average demand) was significantly different from that of groups 2 and 1. The capacity utilisation of group 2 and group 1 of demand levels were also significantly different (see Table 3.16). Therefore, the variation in capacity utilisation could also be partly attributed to the variation in market demand, which in turn, may be dependent on the geographical extent of market and the marketing efforts put in by these units.

Table 3.16

Variation of Average Capacity Utilisation
Among Different Demand Level Groups

Mean	Group No.→ ↓	Low Demand 4	Average Demand 3	Good Demand 2	Very good Demand 1
29.6667	4				
48.8333	3				
55.1867	2	*	*		
62.6104	1	*	*	*	

Note : * denotes pairs of groups significantly different at 5% level.

3.2.10 Extent of Market

Data pertaining to whether the units were catering to the local demand or external demand were also collected. The industry group-wise details with regard to this are shown in Table 3.17. The analysis of the data would reveal that majority of the units (65.5%) cater to the local demand, covering the district in which they are located and also the neighbouring regions. Sizable number of Repair and Service establishments, General Engineering, Wood-based units and Food and Beverage units operated in the local market. While this could be a general trend for repair and service establishments, as far as the other industry groups are concerned, it is an indication of a low profile activity. Only 2 per cent of the units surveyed were exporting their products (see Fig.3.2).

Table 3.17

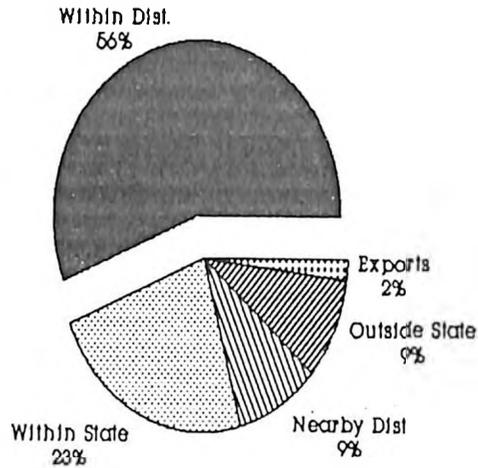
Distribution of SSI units : Industry Group by
Extent of Market

(No. of units)

Sl. No.	Industry group	Total No. of units	Extent of Market				Exports
			Within District	Nearby Districts	Within the State	Outside the State	
1.	Food & Beverages	28	14	4	7	2	1
2.	Rubber	14	4	2	3	4	1
3.	Plastics	4	2	0	1	1	0
4.	Textiles & garments	20	10	3	5	2	0
5.	Wood based	17	11	0	3	3	0
6.	Paper & Printing	6	4	1	1	0	0
7.	Leather	2	2	0	0	0	0
8.	Chemical	13	5	2	5	1	0
9.	Non-metallic minerals	6	1	0	4	0	1
10.	Metal products	9	6	1	2	0	0
11.	Gen. Engineering	27	19	1	4	3	0
12.	Electrical & Electronics	10	2	1	6	1	0
13.	Repairs & Servicing	31	27	2	2	0	0
14.	Building materials	8	4	2	1	1	0
15.	Miscellaneous	8	3	0	3	1	1
	Total	203	114	19	47	19	4
	% to total	--	56.1	9.4	23.1	9.4	2.0

Fig. 3.2

Extent of Market



This is in spite of the fact that Kerala has many unique resources such as rubber, spices, china clay, coconut, marine wealth, etc. which provide ample scope for developing export-oriented products. However, in the sample, only one unit each in the industry-groups such as Food and Beverages, Rubber, Non-metallic Mineral Products and Miscellaneous figured under the column 'exports'. But, considering the fact that a large quantity of export does take place from Kerala, it could be inferred that much of this export may be as primary produces. Further, export-oriented units such as marine products are apparently concentrated in certain places like Quilon and Cochin.

3.2.11 Major buyers or markets

In order to get a general idea about the type of major buyers or potential market for these units and also to assess the nature of inter-industry linkages, seven options were indicated in the questionnaire. Out of the 203 units surveyed, 13 units were catering to the needs of government departments, 2 units were supplying their products to central government companies, 16 units to state government companies and 46 units to private companies. All put together about 31.5% of the total number of units were supplying to other industrial units. Majority of the units (81.8%) were supplying to the consumer market (including those supplying to industrial units). Only 4 units (2%) were supplying to the export market. Those catering to the needs of other private sector companies accounted for 22.7 per cent of the units surveyed (Table 3.18). The overall picture, therefore, indicates some amount of inter-industry linkages. However, though majority of the central public sector units in Kerala are performing well, the above analysis show that their role in the creation of inter-industry linkage has been negligible. This observation supports the general argument that majority of these units have remained as 'islands'. This may also be partially due to the comparatively low level of central investments in Kerala. On the other hand, the low percentage of state government companies as buyers may be explained by the fact that majority of them are ailing units.

Table 3.18

Distribution of Number of Industrial Units
by the Type of Major Buyer / Market

Govt. Dept.	Central Govt. Co.	State Govt. Companies	Private Companies	Consumer.Product Dealers/ Retailers	Export	Others
13	2	16	46	166	4	2
[6.4]	[1.0]	[7.9]	[22.7]	[81.8]	[2.0]	[1]
(0)	(12.5)	(6.25)	(50)	(18.75)	(12.5)	(0)

Notes : 1. Figures in [] brackets are percentages to the total sample size.
Figures in () brackets are percentages based on the quick survey conducted at Bangalore.

2. Figures pertaining to Kerala are not mutually exclusive

But, the analysis with regard to inter-dependency would be incomplete without a comparative picture provided by an industrially developed region. From this point of view, some data were collected from 43 entrepreneurs in an industrially developed region such as Bangalore (explained later in this chapter). The analysis of the data collected from two industrial estates in Bangalore showed a better picture of inter-industry linkage (corresponding figures are also shown in Table 3.18). In Bangalore, the percentage of units catering

to both private and central government companies were found to be much higher showing very good inter-industry linkages. But, the role played by the central government companies in providing market for the products of the SSI sector is quite evident. The fact that these units were not at all catering to the needs of government departments and comparatively lower dependency on consumer market, coupled with a high dependency on private companies and central government companies indicates a buoyant inter-industry linkage. But, such active inter-industry linkages may be true only of highly industrially developed regions such as Bangalore, more so due to the presence of large number of modern industries.

Majority of the units surveyed complained about the long credit period which they were forced to offer to the government departments and companies. They felt that even those government establishments which are cash rich follow protracted procedures before releasing payments and often with very little regard to the liquidity problems of the small-sector. Therefore, as a matter of safe practice, many of the units were found to distance themselves from such organisations if they could manage to push the products in the open market. In this context, it is felt that with all due regard for essential governmental procedures and the necessity to play business games, the government companies and departments should review their systems and procedures with a view to

eliminate redundant practices. However, there may be cases of necessity or advantages to be derived out of negotiations which prompt some government organisations to enjoy longer credit periods. Such situations are part of the game and are, in fact, justifiable. But, timely payments against supplies from the SSI sector itself has to be seen as a vital support facility which should come from the part of the government machinery.

3.2.12 Marketing Problems

The marketing problems faced by the units were studied with a view to identify the major difficulties faced by these units in marketing their products or services. 41.4 per cent of the units indicated that they do not face any significant marketing problem. Out of the various problems indicated by the remaining units, 'proliferation of units' (31% cases) and 'lack of capacity to offer credit' (21.2% cases) were found to be the major problems. 'Unhealthy competition' was another major problem faced by the units. The detailed industry group-wise break-up is given in Table 3.19. Proliferation of units were mostly felt in the sectors of Food and Beverages, Garment making, Wood-based units, Rubber, and Repairs and Services. In the case of Food and Beverages only those units making very conventional products such as pappad, curry powder, pickles, squashes, etc. faced this problem. Even in these product lines, units with unique product differentia-

Table 3.19

**Distribution of SSI units : Industry Group by
Nature of Marketing Problems Faced**

Sl. No.	Industry group	* No. of units	Marketing Problems							No problems
			Unhealthy competition	Proliferation of units	Low demand	Lack of Govt. support	Lack of mktg. info.	Lack of capacity to offer credit	Others	
1.	Food & Beverages	28	6	6	0	0	1	10	0	13
2.	Rubber	14	5	6	0	0	1	5	0	7
3.	Plastics	4	1	0	0	0	0	2	1	2
4.	Textiles & garments	20	6	6	0	2	0	3	0	9
5.	Wood based	17	1	8	0	0	0	3	0	5
6.	Paper & Printing	6	1	3	0	0	0	3	0	2
7.	Leather	2	0	0	0	0	0	1	0	1
8.	Chemical	13	5	4	0	1	0	3	0	7
9.	Non-metallic minerals	6	0	1	1	0	0	2	0	4
10.	Metal products	9	1	1	1	1	0	3	0	2
11.	Gen. Engg.	27	2	9	0	0	0	3	1	12
12.	Electrical & Electronics	10	2	4	0	0	0	1	0	7
13.	Repairs & Servicing	31	6	11	0	0	1	4	3	6
14.	Building materials	8	1	1	0	1	1	0	0	4
15.	Miscellaneous	8	2	3	0	0	0	0	0	3
		203	39	63	2	5	4	43	5	84
	% to total number of units	--	19.2	31.0	0.9	2.5	2.0	21.2	2.5	41.4

Note : * Figures in this column may not tally with the sum of the figures on the right as they are not mutually exclusive.

tion in terms of quality, packing, etc. were found to be in a comfortable position. In the Garment industry, those units which were only better versions of tailoring shops were finding difficulty with regard to credit periods, more so because they cater only to the limited local market. In the case of Wood-based and Paper products, much of the problem was with the high fluctuation in raw-material prices and sometimes non-availability too. The leather units which were very low in number did not face much problems. Ironically enough, the state of Kerala which produces large quantities of raw hide has very few units producing leather goods. Even the units reflected in the sample survey were of very low investment. While it is practically difficult to set up tanneries in a highly densely populated region like Kerala, even the possibility of producing value-added goods using processed leather has not been fully explored. From the queries made with the two leather making units, it was understood that leather goods, especially foot wear, has very good market in Kerala, but the major impediment in modernising the units is primarily the overall advantageous environment provided by the neighbouring state of Tamil Nadu in terms of availability of leather processing units and skilled labour. The presence of Central Leather Research Institute at Madras was pointed out as a strength of Tamil Nadu for leather goods production.

Considering the geographical remoteness experienced by Kerala within the country, a few queries with regard to the use of government support for marketing their products were raised. Only 2.5 per cent of the units indicated their interest in resorting to government assistance for marketing. Though not very much reflected in the sample survey results, some of the units in the traditional sectors such as coir and handicrafts had indicated the necessity for government support for marketing their products, especially in reaching out to the customers outside the state and the country. It was also mentioned that in majority of the cases of export, their products pass through several hands within India ultimately resulting in low margins being passed on to the actual manufacturer.

Other findings with regard to the marketing problems of the units are :

- 41.4 per cent of the units indicated that they do not face any problems in marketing their products. This was apparently due to reasons such as lesser number of competitors in their respective product ranges, low scale of production meeting only the local demand, etc. In other words, majority of these units have their activities confined within the district or at the most, within the state. Units which have tried to expand the extent of their market have faced one problem or the other.

- Proliferation of units, after seeing the success of other units in a particular line, is something which cannot be helped. To some extent, more number of units in a particular line of activity would facilitate the benefits of agglomeration such as the availability of common facilities. But, unhealthy proliferation of units in a certain line of activity shall be discouraged at the time of registration. This could be done only with the help of a reliable database at the District Industries Centres. (see Chapter 4)

- Though, only 2.0% of the units complained about the lack of market information, those units were emphatic about the necessity for a dependable source of market information. In fact, this complaint points to the necessity of an industrial information system capable of catering to the needs of the small-scale entrepreneurs, especially the first generation entrepreneurs and those who plan to enter the external market within and outside the country.

3.2.13 Raw materials

With regard to the availability of raw materials, 76.8 per cent of the units expressed that they have adequate raw material supply. However, majority of them have indicated that there were frequent and very high fluctuations in pric-

es. 7.8 per cent of the units have indicated shortage of raw materials. The shortage was severe in the case of Wood-based units and units producing tiles and bricks from clay. Metal-based and General Engineering units complained about the non-availability of steel at competitive prices. Most of the units who had indicated difficulty in obtaining raw materials were mainly pointing to the lead time of supply. Most of these units were getting their raw materials from outside the state. The details with regard to the source of raw-materials are given in Table 3.20. 68.0 per cent of the units were getting their raw-materials from local sources. This does not mean that they use locally available raw materials. On the other hand, some of these raw materials such as steel, chemicals, plastic granules, etc. are sourced from local dealers, middle men or through government quota system. About 27.1 per cent of the units directly procured the raw material from other states and 1.5 per cent of the units depended on sources from both inside and outside the state.

On the whole, it was felt that though there were no severe problems with regard to raw material supply, the geographical remoteness of Kerala within the country created uncertainties on prices and lead time for supply to majority of those units which depended on a variety raw materials in very small and large quantities coming from outside the state. To reach specific conclusions about the magnitude of the problem of raw material import into the state, sector-wise detailed

Table 3.20

Distribution of SSI units : Industry Group
by Source of Raw Materials

Sl. No.	Industry group	Place of Availability				Total units
		Inside the State	Outside the State	Inside & Outside the State	Not Applicable	
1.	Food & Beverages	23	5	0	0	28
2.	Rubber	14	0	0	0	14
3.	Plastics	0	4	0	0	4
4.	Textiles & garments	9	11	0	0	20
5.	Wood based	16	1	0	0	17
6.	Paper & Printing	3	2	1	0	6
7.	Leather	1	1	0	0	2
8.	Chemical	5	8	0	0	13
9.	Non-metallic minerals	6	0	0	0	6
10.	Metal products	6	3	0	0	9
11.	Gen. Engineering	19	7	1	0	27
12.	Electrical & Electronics	4	5	1	0	10
13.	Repairs & Servicing	21	3	0	7	31
14.	Building materials	6	2	0	0	8
15.	Miscellaneous	5	3	0	0	8
Total		138	55	3	7	203
% to total no. of units		68	27.1	1.5	3.4	100

studies in comparison to the situation in terms of price, lead time of supply, etc. in one or two neighbouring states may have to be conducted. In this context it should also borne in mind that the railway lines within the state of Kerala are still inadequate for cargo handling. At the same time, the age old tradition of water transport through Kerala's numerous waterways is gradually fading away primarily due to the primitive nature of the waterways and ports which do not facilitate speedy transportation.

3.2.14 Working Capital

Working capital in financial terms is defined as the value of current assets minus current liabilities.⁴ In simple terms, it implies the circulating capital which keep the unit functioning. Therefore, working capital is, perhaps, one of the most keenly debated aspect of project financing. The survey tried to elicit entrepreneurs' views on the problems, if any, related to working capital finance.

42.9 per cent of the units expressed that they have adequate working capital. 41.9 per cent of the units indicated that they face working capital shortages. The major complaint of the units was that the banks did not agree to the working capital requirement as calculated by the entrepreneurs. They were also of the view that the banks were not only inadequately funding the working capital requirement, but also were delaying the disbursal of the amounts. It was, however,

interesting to note that 3 manufacturing and 28 repairs and service units had very little idea about their working capital requirements. Therefore, they either refrained from making any comments or gave very vague answers (see Table 3.21).

Table 3.21
Distribution of SSI units : Industry Group by
Adequacy of Working Capital

(No. of units)

Sl. No.	Industry group	No. of units	Adequate	Inadequate	No Comments
1.	Food & Beverages	28	16	10	2
2.	Rubber	14	5	9	0
3.	Plastics	4	1	3	0
4.	Textiles & garments	20	10	9	1
5.	Wood-based	17	11	6	0
6.	Paper & Printing	6	1	5	0
7.	Leather	2	0	2	0
8.	Chemical	13	3	10	0
9.	Non-metallic minerals	6	4	2	0
10.	Metal products	9	1	8	0
11.	General Engineering	27	18	9	0
12.	Electrical & Electronics	10	6	4	0
13.	Repairs & Servicing	31	2	1	28
14.	Building materials	8	6	2	0
15.	Miscellaneous	8	3	5	0
	Total	203	87	85	31
	% to total	100	42.9	41.9	15.2

Banks, when contacted, were of the view that the units tend to look upon working capital finance as a term loan and not

as a short term finance like that for trading or commercial advance. This, they said, results in unrealistic projections with respect to working capital requirement.

In order to have a quantitative measure of the adequacy of working capital financing, data with regard to working capital as a percentage of output were collected. It was found that the average level of working capital obtained by those units which have availed working capital assistance (93 units) was about 7.47 per cent of the output value. This is, in fact, much lower than the 20 per cent stipulated by the Nayak Committee ⁵ as the reasonable working capital finance requirement of SSI units. But, if the total sample size is considered taking into account even those units which have not enjoyed working capital assistance, this figure would drastically fall down to 3.42 per cent. Even the maximum level of assistance enjoyed by any unit was only 15 per cent of the output value. This indicated that the small sector in Kerala was not adequately supported with working capital.

It was found that 110 SSI units had not sought working capital assistance from Banks. On an average only about 25 per cent of the total working capital requirement was met through Bank loans. A further look for any possible relationship between investment levels and the trend in availing working capital assistance revealed that the percentage of units (in the total number of units in the respective investment lev-

els) seeking working capital assistance from Banks increased with the level of investment (see Table 3.22). All the 6 SSI units which had investment above Rs.50 lakhs had obtained working capital assistance from Banks. Out of the 110 units which refrained from availing working capital assistance 79 units (ie; 71.8% of the total number of 110) were below the investment level of Rs.2 lakhs. 32.7 per cent (ie; 36 units) were in the lowest level of 'less than Rs.50,000'. But, this is also due to the basic fact that there is a predominance of low investment units in the total sample and also in the population of industrial units in Kerala. But, based on the observation stated earlier (ie; taking into account the percentage of units in each investment level), it could be concluded that at the lower levels of investment the general tendency is to manage by own funds for working capital requirements. This, in a way, means that when the general levels of investments are low the credit absorption (in this case, working capital credit) of the funds available from Banks would also be less. This may be due to either the promoters shying away from Bank finance to avoid risks or the Bankers' reluctance to finance smaller units with lesser credibilities attached to them.

Table 3.22

Working Capital (WC) Credit Absorption Trend :
Investment Level by Number of Units

Sl. No.	Investment level	Total No. of units	Units availing	WC % to row total
1.	Less than Rs 50,000	51	15	29
2.	Rs 0.50 to Rs 1 lakh	39	11	28
3.	Above Rs 1 lakh, up to Rs 2 lakhs	30	15	50
4.	Above Rs 2 lakhs, up to Rs 5 lakhs	33	16	49
5.	Above Rs 5 lakhs, up to Rs 15 lakhs	34	24	71
6.	Above Rs 15 lakhs, up to Rs 50 lakhs	10	6	60
7.	Above Rs 50 lakhs	6	6	100
Total		203	93	--

Note : > Indicate 'greater than'

In general, it is felt that the actual working capital requirement has to be assessed by the financial institutions in a more pragmatic manner and on a case to case basis. This approach should take into account the lead time in the supply of raw materials, the unavoidable credit periods, work-in-progress duration, etc. The diversion of funds for non-working expenses shall also be prevented by: (a) ensuring that adequate term loan is sanctioned at the appropriate time and, (b) by ensuring that all the facilities for manufacture have been set up before availing working capital.

3.2.15 Term Loan Credit Absorption

In the case of term loan credit absorption also it was found that 71 SSI units (ie; 35% of the total number of units surveyed) had not availed term loan assistance from banks. Instead, they have used their own funds to set up the units. All the units taken together, it was found that, on an average, the term loan assistance availed by the units was approximately around 42 per cent of the project cost. A further scrutiny was done for any possible trends related to the investment levels (see Table 3.23).

Table 3.23

Term Loan Credit Absorption Trend : Levels of Investment by Number of Units

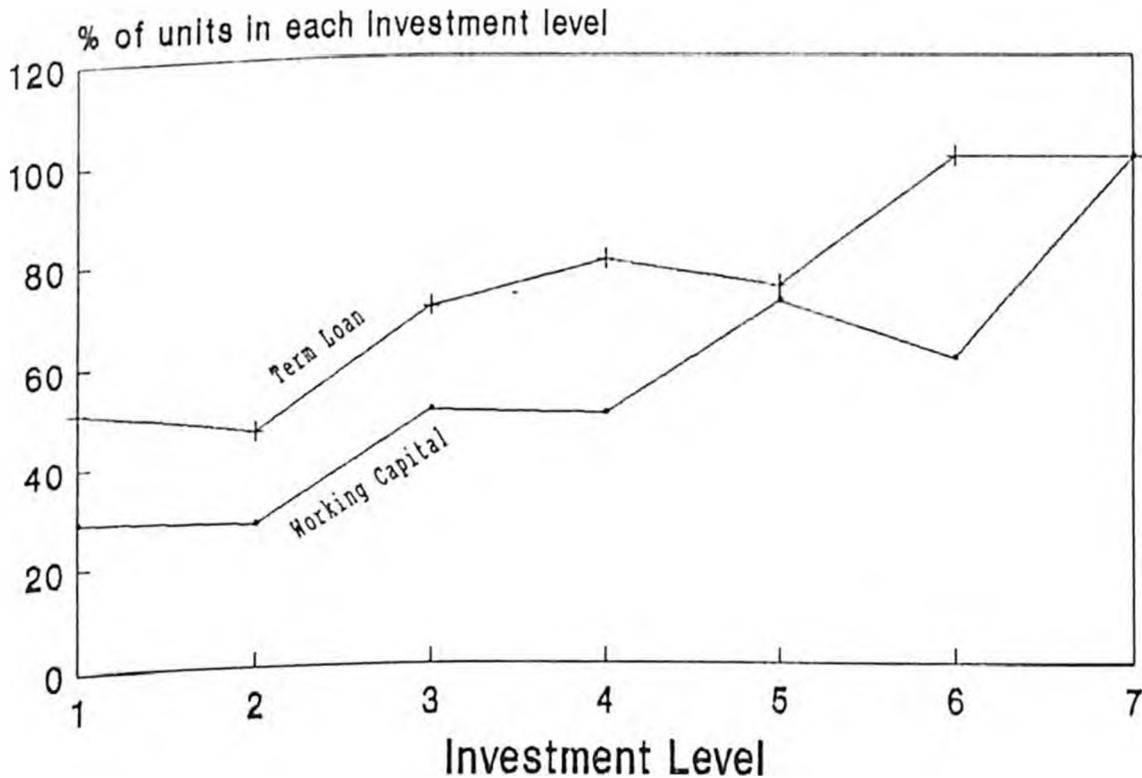
Sl. No.	Investment level	Total No. of units	Units availing Term Loan Number	% to row total
1.	Less than Rs 50,000	51	26	51
2.	Rs 0.50 to Rs 1 lakh	39	18	46
3.	> Rs 1 lakh, up to Rs 2 lakhs	30	21	70
4.	> Rs 2 lakhs, up to Rs 5 lakhs	33	26	79
5.	> Rs 5 lakhs, up to Rs 15 lakhs	34	25	74
6.	> Rs 15 lakhs, up to Rs 50 lakhs	10	10	100
7.	> Rs 50 lakhs	6	6	100
Total		203	132	--

Note : > Indicate 'greater than'

As in the case of the trend in working capital credit absorption, here also, it was found that more number of units in the lower strata of investments have refrained from availing term finance. 64.8 per cent of the units which thus managed with own funds for their fixed assets creation belonged to the first two levels of investment. The percentage of units in each investment level which have enjoyed term loan finance increased with the level of investment. At the highest two levels indicated in the table all the units had absorbed term loan credit. This trend coupled with the predominance of large number of low investment units would naturally reduce the credit absorption into the small-sector. Therefore, the declining Credit-Deposit (CD) Ratio (which is often considered as a measure of the financial support provided by Banks) in Kerala is partially explained by the predominance of small size structure of the SSI units. A better picture with regard to this trend in the case of both working capital and term loan could be obtained from Fig. 3.3.

Fig. 3.3

Investment Level Vs Percentage of Units Enjoying Bank Finance



Note : Numbers 1 to 7 in X axis corresponds to investment levels as indicated in Table 3.22.

As an extension of the above analysis, it was felt appropriate to study the Debt-Equity Ratio of the units surveyed. This ratio which is commonly used to measure the financial risk of a company is the ratio of the debt (loan amount) to the sum of paid-up share capital, and reserves and surplus (own funds).⁶ In the case of the units covered by the survey, the Debt-Equity Ratio (DER), in general was found to be

around 1:1.32. This indicates a reverse trend in project financing wherein the loan content is much lower than own funds. Regression analysis done to examine for any possible relation between the Debt-Equity Ratio and investment levels was also found to be statistically significant (Table 3.24). On the whole, it may be concluded that at lower levels of investments, the entrepreneurs were trying to avoid bank finance.

Table 3.24

Regression Analysis of Debt-Equity Ratio
on Investment

Variable	B	SE B	Beta	T	Sig. T
Investment	.190189	.093565	.144408	2.033	.0434
(Constant)	1.153487	.331478		3.480	.0006

3.2.16 Infrastructural facilities

Infrastructural facilities play a very significant supportive role in the industrial development of a region. Apparently, Kerala has very good social infrastructure such as schools, hospitals, banks, post-offices, etc. (see Chapter 4 for detailed analysis). Therefore, the effort was to gather the level of satisfaction of the entrepreneurs with regard to those infrastructural facilities which are vital for indus-

trial development. The findings of the survey with regard to this is given in Table 3.25.

Table 3.25

Adequacy of Infrastructural facilities

Sl. No.	Type of Infrastructure	Available	Insuff- icient	Not available	No comments
1.	Power	114 (56.2)	77 (37.9)	*12 (5.9)	0
2.	Water	138 (68)	58 (28.6)	7 (3.4)	0
3.	Transport	186 (91.6)	17 (8.4)	0	0
4.	Land / Shed	144 (70.9)	50 (24.6)	9 (4.5)	0
5.	Consultancy Support	23 (11.3)	56 (27.6)	10 (4.9)	114 (56.2)

- Notes : 1. Figures in brackets indicate percentage to total number of units surveyed.
2. * 12 units surveyed were not using power for production purposes.

The units were asked to indicate their opinion on the availability of basic infrastructural facilities such as power, water, transport, sheds in industrial estates and consultancy support. 37.9 per cent of the units complained about the inadequacy of power. Frequent disruptions, voltage fluctuations etc. were reported by almost all the units surveyed. A good number of the units have indicated that they are unable to increase the number of shifts due to low voltage experi-

enced from 6 P.M. to 11 P.M, almost every day, the voltage being as low as 130 volts.

68 per cent of the units were getting adequate water. Only 8.4 per cent of the units, expressed difficulties with respect to transportation facilities. 70.9 per cent were satisfied with the availability of sheds for industrial purposes. Though, only 43.8 per cent of the units responded to the question of availability of local consultancy support, it is felt that this is an area which needs attention, as about 32.5 per cent of the total number of units expressed the problems faced by them in getting reliable consultancy support. Most of them were vehemently criticising the lack of a proper industrial information system, especially at the District Industries Centres (DIC). A subsequent quick assessment of the facilities at the DIC's revealed that they are ill-equipped to provide proper counselling and guidance services to the entrepreneurs. First of all, project profiles were not at all updated. Most of the project profiles were found to be those prepared in the 1980s. Even quick estimates of the demand-supply gap in various sectors at each district were not available. Therefore, the counselling largely depended on the 'individual' manning the information centre and was not at all system-bound. Only the District Industries Centre at Trivandrum was found to be in a slightly advantageous position due to the existence of the 'Documentation Centre' of the Industries Department housed in the same

building. Even this Documentation Centre did not have the features of a good library.

3.2.17 Manpower

The details with regard to the manpower, in terms of total strength and skill level were collected. The total strength was found to be 1955 in all the 203 units put together. This includes usual manpower covering those who work almost regularly throughout the year.

The skill level based classification reveals that a large percentage of them (59.7%) belonged to the 'skilled' category. 28.85 per cent were semi-skilled. Though the unskilled constituted only 11.45 per cent there were large number of additional casual labour attached to industrial units producing building materials, wood products, food products, etc. Garment industries were found to be creating job opportunities outside the industrial unit premises, mostly on a piece-rate system. The average manpower per unit works out to about 10. (Table 3.26).

Table 3.26

Details of Manpower

Skilled	Semi-skilled	Unskilled	Total
1167 (59.7)	564 (28.85)	224 (11.45)	1955 (100)

Note : Figures in brackets are percentages to total

3.2.18 Industrial relations

For a long time, the industrial relations prevalent in the State of Kerala was considered to be unfavourable to the success of industrial ventures. As such, this has become a point of debate as to how far this argument is true. Opinions of the entrepreneurs were gathered with respect to the industrial relations within their purview of activities. 29.6 per cent of the units reported that the industrial relations within their units are good. 66.5 per cent of the units have indicated that the situation is satisfactory. Only 3.9 per cent opined that the industrial relations are bad (Table 3.27). On the whole, it was felt that, in Kerala, the labour force in the organised sector is, by and large, amicable. The disputes, most often, are in the unorganised sector, especially in the loading and unloading activities. There was, however, a general opinion that the interference of the local political leaders continue to cast a shadow of fear over industrial activities. It was also reported that the large number of trade unions force the entrepreneurs to satisfy widely varying demands of different groups. No sector showed any specific characteristic with regard to industrial relations. However, certain regions were more prone to labour militancy. For instance 3 of the units which indicated bad industrial relations were from a specific area. At least in one case, the unit was found to be operating around 30 per cent capacity utilisation as a strike was going on demanding

absorption of local people into the work force. This was somewhat difficult as the unit was producing GLS lamps which required skilled workforce. The whole agitation, it appears, was mooted by local petty political leaders.

Table 3.27

Industrial relations

Sl. No.	Opinion	No. of units	per cent to total
1.	Good	60	29.6
2.	Satisfactory	135	66.5
3.	Bad	8	3.9
	Total	203	100

3.2.19 Government subsidies and other concessions

The question with regard to incentives and subsidies were properly responded to only by 180 units. Others were either not well-informed about the various subsidies or thought that it was a herculean task to get these concessions sanctioned from the Industries Department. Out of the 180 units, 148 units (72.9%) reported that the subsidies were adequate. Majority of the units (67.5%) received their subsidies within a period of 6 months after they applied for it. A good number of entrepreneurs have opined that they do not attach much importance to subsidies as it is normally not available to them to tide over the teething problems of the project.

But, in general, it was observed that entrepreneurs definitely value the cushioning effect of the subsidies (especially, investment subsidies) but do not depend much on them. It was also felt that there was the absence of an effective information mechanism to keep the entrepreneurs posted about the latest policies. Since each DIC was found to be having its own way of communicating to the entrepreneurs, there is also the absence of a uniform way of presenting schemes and programmes to the entrepreneurs with enough clarity. Added to this is the variety of schemes in operation.

3.2.20 Government Support

The units were asked to indicate some general opinions about the governmental supports which would help industrial activities. While majority of the units refrained from answering this question, following suggestions were proposed by different entrepreneurs.

1. Stable policies
2. Political support and reduction in the number of trade unions
3. Immediate steps to improve the power situation, at least elimination of uninformed interruptions, voltage fluctuations, etc. Providing total infrastructural facilities through a better form of industrial estates with

modern common facility centres for design, testing, processing and training.

4. Enforcing rules pertaining to the wages in the unorganised sector, especially in the case of loading and unloading activities, construction workers, etc.
5. Speedy clearance of formalities for setting up industries.
6. Institutional support for procurement of certain raw materials which have to be brought from far off places.
7. Institutional support for marketing, especially for the export of products.
8. Increased tax holiday
9. Timely payment against supplies to government departments and companies.

Out of the above, entrepreneurs have been found to assign much importance to infrastructure and stable policy. A further analysis of the nature of government supports sought by units belonging to different levels of investments was done (Table 3.28). While the need for infrastructural support was expressed by units in all the investment levels, the requirement of stable policies was expressed only by those at the higher levels of investment. This is explained by the fact that units at higher levels might be taking more calculated

risks which have bearing on the governmental policies and priorities. Mundane problems such as quota for raw-materials, tax concessions, timely payments against supplies, etc. were expressed by all levels of investment.

Table 3.28

Distribution of Number of Cases : Investment by Type of Government Support Sought

Sl. No.	Nature of support	Level of Investment *							Total	% to total
		1	2	3	4	5	6	7		
1.	Stable policy	-	-	-	2	3	5	5	15	7.4
2.	Political support	-	-	-	-	2	-	-	2	1.0
3.	Infrastructure	-	2	3	3	7	2	2	19	9.4
4.	Controlling of head load workers	-	1	-	2	2	-	-	5	2.5
5.	Speedy clearance of formalities	-	-	-	1	-	1	-	2	1.0
6.	Quota for Raw materials	-	-	4	1	-	-	-	5	2.5
7.	Institutional support for Marketing	1	-	1	-	1	-	1	4	2.0
8.	Increase tax holiday	-	-	1	1	1	1	-	4	2.0
9.	Timely payment against supplies	-	1	2	1	1	1	-	6	3.0

Note : * Figures 1 to 7 corresponds to investment levels as indicated in Table 3.3

3.2.22 Return on Investment

Return on Investment (ROI) is a measure of overall performance and shows the relation between net profit and amount of investment in total assets. Being a macro level study it was decided not to go into the actual ROI of the individual units. Instead, it was decided to assess the variation from a base level of 20 per cent which was assumed to be a reasonable minimum level. Accordingly, industry group-wise distribution of number of units under three groups of 'less than 10 per cent', 'greater than 10 per cent, but less than 20 per cent' (both being a break-up of 'less than 20%' group) and 'greater than or equal to 20 per cent'. (Table 3.29). Majority of the units surveyed (43.8%) fell within the range of 'greater than 10 per cent, but less than 20 per cent'. Only 23.2 per cent of the units had an ROI greater than 20 per cent. 30.5 per cent of the units were operating with ROI less than 10 per cent. Among the different industry groups only three groups viz; plastics, electrical and electronics, and building materials did not have representation in the lowest range of 'less than 10 per cent'. All these showed that efficient use of total funds invested was achieved only in a few industries. This might, in turn, be due to uneconomical size and technology employed by these units.

Table 3.29

Distribution of units : Industry group
by Level of Return on Investment

Sl. No.	Industry group	No. of units	Level of Return on Investment			
			< 10 %	>10% & <20%	≥ 20%	Unknown
1.	Food & Beverages	28	4	16	8	0
2.	Rubber	14	9	4	1	0
3.	Plastics	4	0	2	2	0
4.	Textiles & garments	20	10	7	3	0
5.	Wood based	17	9	5	3	0
6.	Paper & Printing	6	1	3	2	0
7.	Leather	2	1	1	0	0
8.	Chemical	13	5	7	1	0
9.	Non-metallic minerals	6	1	1	4	0
10.	Metal products	9	4	5	0	0
11.	General Engineering	27	13	13	1	0
12.	Electrical & Electronics	10	0	4	6	0
13.	Repairs & Servicing	31	1	16	9	5
14.	Building materials	8	0	3	5	0
15.	Miscellaneous	8	4	2	2	0
	Total	203	62	89	47	5
	%	100	30.5	43.8	23.2	2.5

3.3 Survey Among Entrepreneurs

Almost parallel to the survey of the industrial units, the entrepreneurs were interviewed using a separate questionnaire with a view to understand their background, motivational factors for setting up industrial units and also the different hurdles faced by them (see Appendix 2). As this survey was conducted along with the survey of the SSI sector, all the conditions stated earlier holds good for this also. But, for a variety of reasons including the non-availability of entrepreneurs at the time of visits, only about 115 responses could be utilised. Considering the fact that there is no further classification within the target group of entrepreneurs (unlike the industry group within the small-sector) it was felt that this sample size would suffice. This survey was further extended to a few units (43 numbers) in two industrial estates at Bangalore. This was done with the idea of making a quick and rough comparison of Kerala-based entrepreneurs with those in a highly industrially developed environment. The findings of the survey are detailed below .

3.3.1 Educational background of the promoters

With regard to the question of the educational background of the promoters, it was found that 15 of them (13%) were having technical diploma or graduation and 12 of them (10.4%) were technical certificate holders. 58 entrepreneurs (50.4%) were either graduates or post-graduates with general background,

such as literature, (39.1%) economics, commerce, science, etc. 45 persons (39.1%) were having SSLC or pre-degree qualifications (Table 3.30).

Table 3.30

Educational Background			
Sl. No.	Qualification	Number	Percentage to total
1.	Upto S.S.L.C	19	16.5
2.	Tech. Certificate holders	12	10.4
3.	Pre-degree	26	22.6
4.	Graduation	32	27.8
5.	Post-Graduation	11	9.6
6.	Tech. (Diploma)	8	7
7.	Tech. (Graduation)	7	6
Total		115	100

3.3.2 Ancestral background

The ancestral background of the entrepreneurs were also collected as part of the study (Table 3.31). 52 of the entrepreneurs (45.2%) came from families with business or trading background. 21 per cent were with 'industrial' background and 17.3 per cent with agrarian background. Only 12.2 per cent of the entrepreneurs had their family members in government service. Considering the low level of employment opportunities in the private sector in Kerala, or also due to various other reasons, those with their ancestors in private service were only 4.3 per cent.

Table 3.31

Ancestral Background of the Entrepreneurs

Sl. No.	Predominant Ancestral Background	Number	Percentage
1.	Business / Trading	52	45.2
2.	Industry	24	21.0
3.	Agriculture	20	17.3
4.	Government service	14	12.2
5.	Private service	5	4.3
Total		115	100

Considering the importance of 'role model' in generating entrepreneurs this analysis has again shown that more of those with business or industry background in their families have chosen to be entrepreneurs. A further analysis, however, revealed that 12 out of 24 entrepreneurs were inheriting industrial units from their ancestors. This also meant that an equal number of those entrepreneurs with industrial background have set up entirely new industrial units. The overall picture, therefore, is that past foundings create more entrepreneurs. This is in conformity with Cooper's (1970) argument that in an area of active entrepreneurship, there may be hundreds of experienced founders whose presence makes future entrepreneurs more likely.⁷

3.3.3 Promoters' past work experience

The data with regard to the earlier work experiences of the promoters revealed that 23.5 per cent were either running own trading activities or were actively involved in family business (which included industrial activity) before setting up their own units. 26 per cent of the entrepreneurs were working in private companies - majority of them were outside Kerala, either in Gulf countries or in major cities in India. 25.2 per cent were unemployed. Those who were in the government (3.6%) were mostly retired persons. The category 'others' included those who were engaged in contract jobs, temporary jobs, agency activities, share broking and other odd jobs (Table 3.32).

Table 3.32

Promoters' Past Work Experience

Sl. No.	Nature of experience	No. of respondents	Percentage to total
1.	Own trading/Family business	27	23.5
2.	Worked in Govt. Dept.	2	1.8
3.	Worked in Govt. Company	2	1.8
4.	Worked in Pvt. Company	30	26.0
5.	Was unemployed	29	25.2
6.	Others	25	21.7
Total		115	100

3.3.4 Motivational factors for taking up entrepreneurial career

With regard to the question of the motivational factors which led them to entrepreneurial ventures, majority of them (35.7%) stated that they wanted to be independent by setting up their own establishments. The next important reason was the difficulty faced by them (20%) in getting a job. While 17.4 per cent of the entrepreneurs realised about a business opportunity while working in another organisation, 12.1 per cent of them were utilising their wealth and experience earned elsewhere, mostly in Gulf countries or industrially developed regions within the country. Here, it was observed that a good number of these entrepreneurs (23 persons) became entrepreneurs after facing difficulty in getting a job. One peculiar feature of such units were their low size-structure. Many of them were only slightly better than self-employment ventures, and were basically set up as an alternative to employment (Table 3.33).

Table 3.33

Motivational Factors

Sl. No.	Factor	Number of persons	Percentage to total
1.	Getting a job was not easy	23	20.0
2.	Joining the family business	17	14.8
3.	Wanted to set up own business and be independent	41	35.7
4.	Attracted by the incentives offered by the government	0	0
5.	Realised about a business opportunity while working in another organisation	20	17.4
6.	Utilisation of wealth and experience earned elsewhere (mostly in Gulf countries or Metros in India)	14	12.1
Total		115	100

3.3.5 Major problems faced by the entrepreneurs

On a the question with regard to the difficulties faced by these entrepreneurs, 'procedural delays at banks and government departments' and 'shortage of skilled labour' emerged as the major problems. As it was somewhat ironical to hear that there is a shortage of skilled labour in Kerala, a much deeper probing was required. Further enquiry revealed that there is a continuous exodus of skilled labour especially to

the Gulf countries, now at a slower rate than before as the opportunities are coming down. Lack of proper guidance at the District Industries Centres and even at Consultancy and other promotional agencies was indicated as a problem which demands immediate attention. Surprisingly only 10.4 per cent of the entrepreneurs were concerned about labour troubles. But all of them were unanimous about the indisciplined nature of the loading and unloading workers (Table 3.34).

Table 3.34

Major problems faced by the Entrepreneurs

Sl. No.	Problem	Number of responses indicated	Percentage to total number of entrepreneurs
1.	Lack of proper guidance	22	19.1
2.	Procedural delays at Banks and Government offices	54	47.0
3.	Shortage of working capital	19	16.5
4.	Shortage of raw material	17	14.8
5.	Marketing problems	32	27.8
6.	Labour troubles	12	10.4
7.	Shortage of skilled labour	52	45.2
8.	Other miscellaneous problems	18	15.7

Note : Figures are not mutually exclusive

To sum up, the survey among entrepreneurs behind the industrial units did not show any strong signs of an entrepreneurial culture. There was an obvious absence of 'role models' in the society. A good number of them were driven to en-

entrepreneurship by the lack of employment opportunities. Among those entrepreneurs who had earned wealth and experience working in other states or Gulf countries, the primary motivation for setting up their own units in Kerala was 'home coming' rather than anything else. Out of 9 of these entrepreneurs who were 'Gulf returnees' only one was found to be really affluent who was also earning a higher level income abroad. Others apparently belonged to the middle or low income (in the Gulf context) group. They had to necessarily enter into some kind of productive activity to earn a living or at least to maintain whatever wealth they have already created. Apparently enough, the affluent Gulf returnees which include a large number of professionals were largely investing in plantations and real estates, and company shares. This situation, therefore, ideally demands a separate detailed study on the investment trends of the Non-Resident Keralites, who represent a potential segment of the population who have sufficient capital formation to invest in industries and take some calculated risk. It was also felt that a quick survey among entrepreneurs in an industrially developed region would enable a rough comparison with the characteristics of Keralite entrepreneurs revealed by the present study. Though these further explorations were beyond the scope of the present study, in a very limited manner both the aforesaid surveys have been carried out.

3.4 A rough comparison with entrepreneurs in an industrially developed region in another state

A detailed survey of the industrial units in a selected industrially developed region was beyond the scope of the present study. However, based on the initial analysis with regard to the industrial scenario in Kerala, it was thought appropriate to make a quick comparison of the characteristic features of the entrepreneurs in an industrially developed region with those of the average Keralite entrepreneurs. For this purpose, Bangalore was selected as the industrially developed region. The details of this somewhat purposive sampling is given below. Here the major assumption is that Kerala as a whole represents an industrially backward area.

3.4.1 Methodology

List of industrial units in Rajaji Industrial Estate and Peenya Industrial Estate were initially collected from the estates authorities. The total number of entrepreneurs who had set up these units in these estates were chosen as the universe. A sample of 75 units (and therefore, the entrepreneurs) were selected through a simple random method. These entrepreneurs were then contacted in person. Through this process which took about a week, only 25 entrepreneurs could be met in person. Questionnaires (see Appendix 2) with self addressed stamped envelopes were then distributed to a few units in person and also by post. Out of this, only 18 persons responded making the total number of respondents 43.

This sample size is straight away not comparable with that obtained from Kerala (115). However, an analysis based on 43 responses revealed a marked difference in the characteristics of the entrepreneurs. Therefore, a rough comparison is indicated here only with the view of drawing attention to the fact that this sort of comparative analysis by itself could be a topic for further study.

3.4.2 Educational background

In contrast to the educational background revealed by the survey among Kerala-based entrepreneurs, in Bangalore, the percentage of technically qualified persons was very high (58 per cent). 16 per cent of the entrepreneurs were graduates or post-graduates with general background. 19 per cent were either SSLC holders or below. (Fig. 3.4).

3.4.3 Ancestral background

Unlike in the case of Kerala, almost an equal distribution among the five types of ancestral background was observed among the entrepreneurs in Bangalore City. The comparison is shown in a graphical manner in Fig. 3.5. This, in a way, shows that entrepreneurs have been generated largely due to business opportunities irrespective of their ancestral background.

Fig. 3.4

Educational background : A Comparison

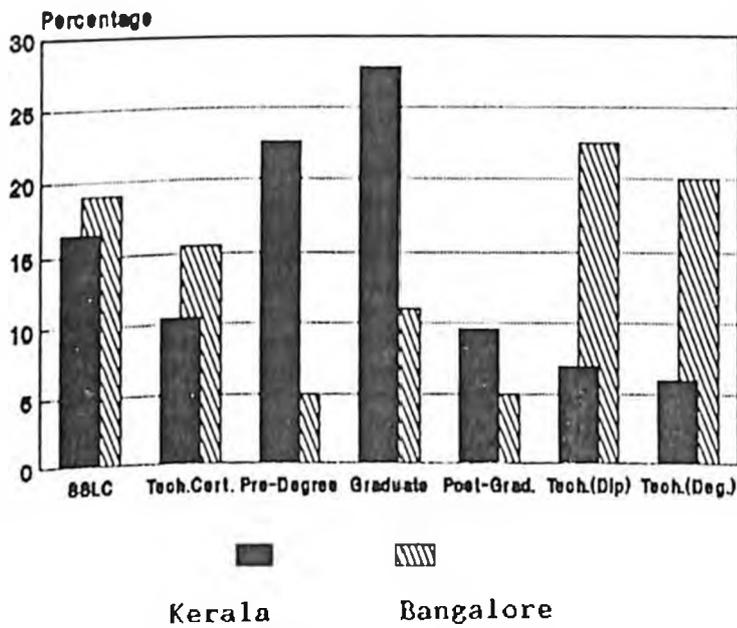
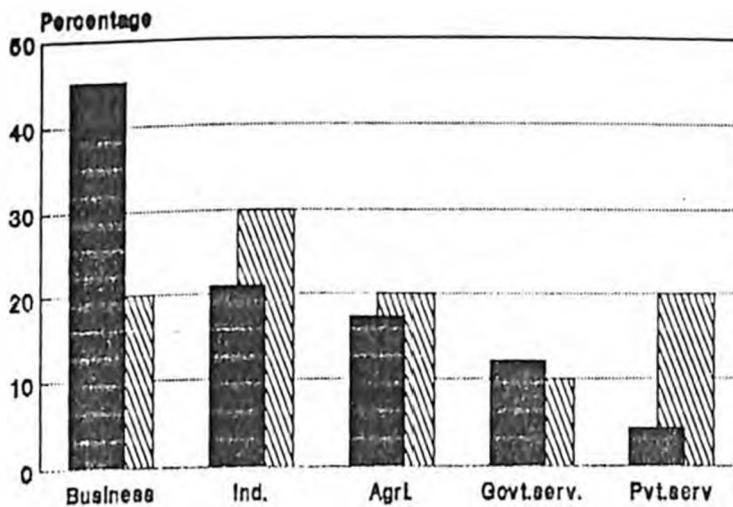


Fig. 3.5

Ancestral background : A Comparison



3.4.4 Promoters' past work experience

In this case also there was a marked difference in Bangalore in comparison to the overall trend in Kerala. Only 2.8 per cent of the entrepreneurs were working in government departments. However, those who had left public sector units and started their own enterprises were 20 per cent and those who had left private companies to become entrepreneurs constituted 54.3 per cent. This indicated a significant presence of 'incubator' organisations in Bangalore. Those who were unemployed before taking up entrepreneurship were only 8.6 per cent. This is, in fact, an indication of the lesser number of years the entrepreneurs have spent trying for a job before venturing into their own business. For comparative idea with the situation in the whole of Kerala see Fig. 3.6.

3.4.5 Motivational factors

In the case of Bangalore-based entrepreneurs, the main motivational factor behind setting up the units was the 'realisation of business opportunities while working in another organisation' (42.8%). This validates the earlier observation with regard to the presence of organisations which incubates entrepreneurs. The other major factor was the urge to be independent (34.2%). Only 8.5 per cent of the entrepreneurs considered entrepreneurship as an alternative to employment. Fig. 3.7 shows the comparative picture with Kerala.

Fig. 3.6

Comparison of Nature of Work Experience

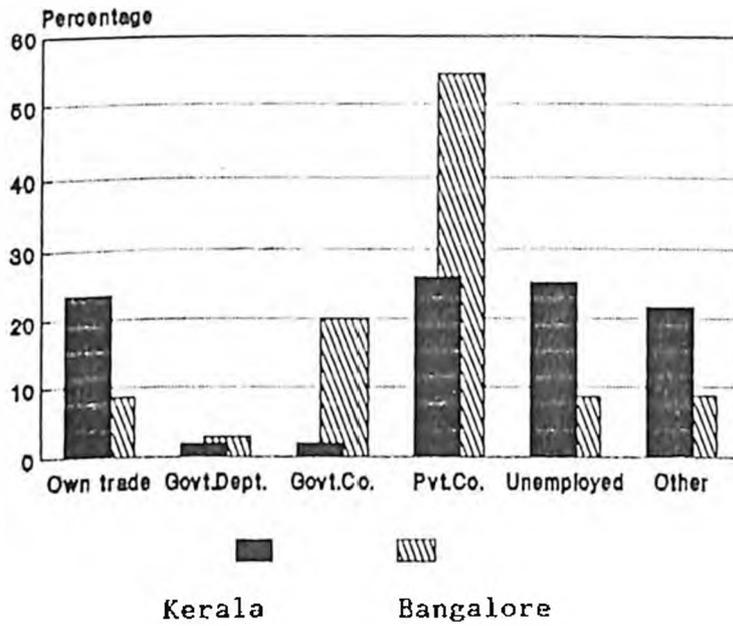
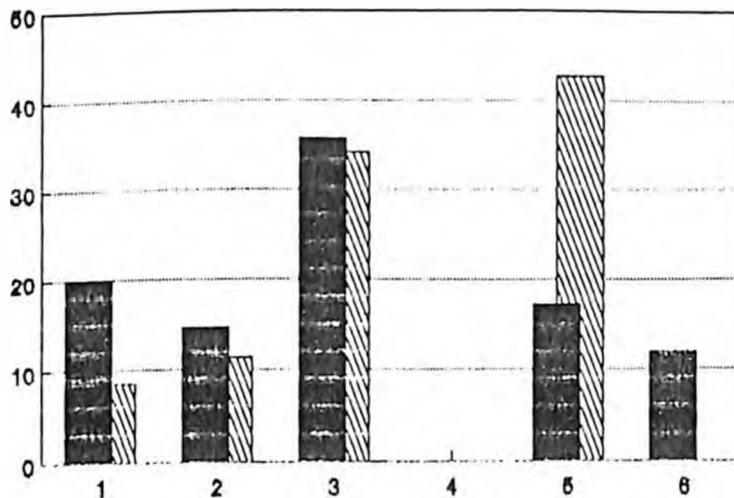


Fig. 3.7

Comparison of Motivational Factors



3.4.6 Major problems faced

While nobody practically indicated the 'lack of proper guidance' for setting up units, almost all the other factors reflected in the Kerala survey were indicated by the Bangalore-based entrepreneurs also. Like their counterparts in Kerala, they were also worried about the shortage of power, changing policies of the government, inadequate funding by the banks, shortage of skilled labour and even labour troubles. As the sample size is too small to do a direct comparison based on such large number of factors, it is not being attempted here.

3.5 Survey among Non-Resident Keralites (NRKs)

As an extension of the survey among potential entrepreneurs, it was thought appropriate to conduct a quick study of the attitudes and investment plans of the NRKs, who represent a highly potential group of entrepreneurs, mainly, considering their money power. Accordingly, a survey was conducted among 48 Non-Resident Keralites employed in various organisations in the Gulf countries. A good number of them were professionals. A questionnaire was prepared for conducting this survey and was initially tested on a few known persons and suitable modifications were made (see Appendix 4). The questionnaire was actually administered during two gatherings of NRKs. A few others were contacted when they were in India on annual

leaves. As it was felt appropriate to give the findings of this survey in conjunction with the analysis on migration of Keralites, the details are given as 5.4.11 in Chapter 5.

3.6 Study of Entrepreneurial Perceptive factors

Apart from the field surveys explained earlier a survey was conducted among those entrepreneurs (existing and potential) who are sufficiently mobile from the point of view of investing in any one of the four southern states. A list of entrepreneurs from outside Kerala who had shown interest in investing in Kerala was initially collected from Kerala State Industrial Development Corporation (KSIDC) and questionnaires were sent to them soliciting their perception about Kerala as an industrial destination. These entrepreneurs included both Keralites and non-Keralites having one or more units or those who wish to set up one in some part of the country, but mostly with interest in setting up units in South India. The list collected from KSIDC gave addresses of such entrepreneurs who have already had discussions with them and have taken some preliminary steps. Some were Non-Resident Indians. Apart from this, questionnaires were also sent to a few Non-Resident Keralites and potentially mobile entrepreneurs presently operating in Bangalore and Madras. The list of such entrepreneurs was collected from various contact persons in the industrial field and from the local Technical Consultancy Organisations and Industries

Departments. The sample included entrepreneurs from small-scale (mostly with plans for higher levels of investments), medium and large scale sectors.

This survey was conducted almost at the final stages of the thesis work and after the identification of the critical factors as explained in Chapter 6. However, the findings are presented here for the reasons stated at the beginning of this chapter.

Objective of the survey

This survey was intended to study the perception of entrepreneurs (potentially mobile entrepreneurs) about Kerala as an industrial destination in comparison to the three other neighbouring states of Tamil Nadu, Karnataka and Andhra Pradesh.

Methodology

A questionnaire (Appendix 5) was prepared with a view to obtain a comparative rating of six critical factors which would influence setting up of industrial units. These factors were identified based on the analyses done in this thesis work and in the context of industrial development in Kerala. The factors were (a) Energy availability (b) Land availability (c) Favourable environmental and ecological conditions for manufacturing units (d) Favourable labour

attitudes (e) Political Stability and Government support and, (f) Capital availability. The entrepreneurs were asked to do a comparative rating (among the four states) on a simple 0-5 scale.

The questionnaire was initially tested on four entrepreneurs and slight modifications were made. Though questionnaires were sent to 50 entrepreneurs only 24 persons responded. Six others were contacted in person for collecting data. In all, 30 responses were obtained. The data was then subjected to statistical analysis using standard SPSS package.

Findings

The data with all the aforesaid six factors (variables) were analysed. The multivariate omnibus test statistics in MANOVA was put to test and on finding statistically significant, further univariate analysis involving individual ANOVAS was done to determine which variable(s) contributed to the significant test statistics. The output is given as Table 3.35.

Table 3.35

Multivariate Analysis of Six Critical Factors for the
General Effect on Creating an Industrial Destination

Effect	Constant	States
Overall	Wilks Lambda .05365 F 326.35 Sig. <.01	Wilks Value Lambda .35549 F 7.71 Sig F <.01
Follow up		
Var.1 (Energy)	F = 607.50 P <.01	F = 11.89 P <.01
Var.2 (Land)	F = 997.16 P <.01	F = 32.02 P <.01
Var.3 (Environment and Ecological Condition)	F = 952.03 P <.01	F = 4.74 P <.01
Var.4 (Labour attitude)	F = 1088.59 P <.01	F = 34.16 P <.01
Var.5 (Political Stability and Government support)	F = 819.94 P <.01	F = 5.72 P <.01
Var.6 (Capital)	F = 1330.52 P <.01	F = 9.63 P <.01

The omnibus overall test provided the following results for the general effect :

- i) Industrial activity is depending upon all the six variables. (The Wilks Lambda is significant at 1% level)
- ii) The most important variable in this dependence is the Variable 6 followed by Variable 4, Variable 2, Variable 3, Variable 5 and Variable 1, in this order.

The tests relating to the case where difference among the states were then considered. The scores obtained from the sample provided the following results.

1. Potential for industrial activity (as expressed by entrepreneurs by a scale) showed differences for the four states as observed through the six variables (Wilks Lambda is significant at 1% level).
2. The most important variable among the six variables showing difference among the four states was Variable 4 (Labour attitude) followed by Variable 2 (Land availability). The entrepreneurs have the opinion that Variable 4 is the most important variable in observing differences in industrial climate among the four states.

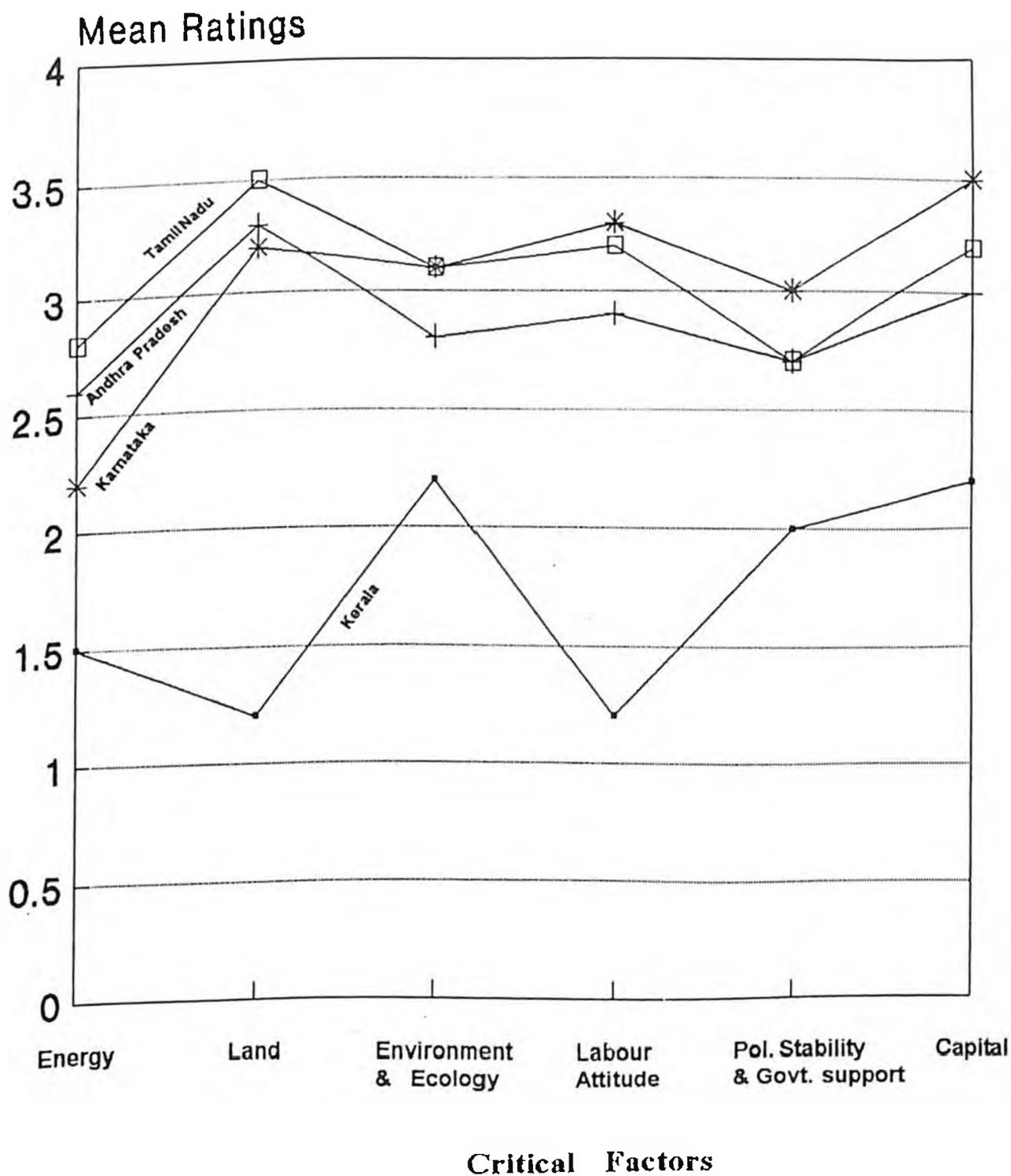
From the above findings, it could be concluded that all the six factors identified are critical enough to make a region attractive as an industrial destination and that if the state differences are not taken into account, Capital availability,

Labour attitudes and Land availability are the major three critical factors from the point of view of entrepreneurs' perception. Further, it was also found that the potential for industrial activity showed differences among the four states in terms of the aforesaid six critical factors. In this, most important critical factors which differentiate among the states are 'Favourable labour attitudes' and Land availability', in this order. As far as the availability of land is concerned it is too well-known that Kerala is far behind all the other three states considered here. A relative position of Kerala with regard to the other factor viz; 'Favourable labour attitude' will be somewhat evident from the graph plotted below (Fig.3.8).

From the figure, it is clear that Kerala's score with regard to labour attitude is substantially poor when compared to the scores of other states. In fact, Kerala had a poor mean score on all the factors when compared to the scores of the other states. Another noticeable observation was the similarity in the pattern of relative weightage assigned to all the critical factors for the three states other than Kerala. For instance, in all the three cases the mean scores corresponding to the factors 'Land availability', 'Labour attitudes' and 'Capital availability' were higher than the scores for the other three factors. In contrast to this, in the case of Kerala, there was a different pattern of relative weightage

Fig 3.8

Relative importance of Critical Factors for Industrial Climate



for the factors. On the whole, it could be concluded that in the popular perception of the entrepreneurs, Kerala's position as an industrial destination is less convincing when compared to all its neighbouring states. It may also be concluded that though the recent statistical data with regard to strikes and man-days lost, etc. speak in favour of Kerala, the past experiences with regard to labour unrests continue to influence the perception of the entrepreneurs.

3.7 Conclusions

The conclusions based on the analysis of the data gathered through field surveys can be summarised as follows:

- The predominance of industrial units with very low levels of investment coupled with high incidence of proprietary concerns indicated the weak size-structure of the small-scale industries in Kerala.

- The analysis indicated a spurt in the number of units established in the eighties and nineties. But, during the same time periods an increase in the percentage of units falling within lower levels of investment was also observed. This finding along with the high incidence of proprietary concerns indicated that a good number of small-scale industrial units in Kerala might be only a slightly better version of self-employment ventures. Further analysis also revealed a growth in the percentage of service establishments as against a fall in the percentage of manufacturing units

during the corresponding time periods.

- A preliminary assessment of the Return on Investment (ROI) of the units also revealed that 74.3 per cent of the units were operating below an ROI of 20 per cent. In this, 30.5 per cent had an ROI less than 10 per cent.

- It was also found that, in the small-scale sector, locational decision was more a matter of convenience though even other factors such as availability of skilled labour, proximity to raw material sources and market, transport facilities, etc. have their own weightage.

- The mean capacity utilisation for all the industry-groups put together worked out to 56.12 per cent, with about 50.7 per cent of the number of units operating below 60 per cent capacity utilization. Though various reasons such as shortage of working capital, marketing difficulties, power shortage, competition, scarcity of skilled labour, etc. were pointed out as the factors responsible for low capacity utilisation, it was found that in the case of working capital the relationship with capacity utilisation is statistically significant. The variation in capacity utilisation could also be partially attributed to the variation in market demand. But, only the group 'Repairs and Service' showed any significant difference in capacity utilisation from the other industry groups.

- On an average, only about 7.47 per cent of the output value was obtained as working capital for the 93 units which have availed working capital assistance. This is very much below the 20 per cent level recommended by the Nayak Committee. Therefore, it could be concluded that working capital is a problem area for the small-sector in Kerala. Apart from this is the fact that 54.2 per cent of the units had not availed working capital assistance at all. An analysis of the trend in working capital credit absorption revealed that at the lower levels of investments the general tendency was to somehow manage with own funds.

- As in the case of working capital, 35 per cent of the units had not availed term loan assistance and on an average only about 42 per cent of the project cost was met through term loan. This indicated a Debt-Equity ratio which is much lower than the usually accepted norm which ranges from 2:1 to 3:1. Here again, it was found that a large number of units in the lower strata of investments have shied away from bank finance. This partially explains the declining trend of CD Ratio in Kerala, more so when a larger proportion of the SSI units are in the lower levels of investments.

- 65.5 per cent of the units were catering to the local demand covering only the nearby districts. Only 2 per cent of the units surveyed were exporting their products. At the same time 41.4 per cent of the units expressed that they do not face any marketing problems.

All the findings taken together support the argument that the manufacturing sector in Kerala is characterised by the predominance of enterprises with low investment, uneconomic operational features and weak inter-industry linkages. The overall picture in the small-scale sector also revealed a low profile activity. The survey among the entrepreneurs behind these industrial units also did not show any strong signs of an entrepreneurial culture.

The first hypothesis which stated that the low capacity utilisation of the SSI units in Kerala are on account of shortage of working capital and poor market demand was also found to be valid. As majority of the units were found to be dependent on the local market, it may be further inferred that the low capacity utilisation is due to the over dependency on the limited local market. It was also found that, at lower levels of investment, the general tendency is to avoid bank finance, which was found to be statistically true. Thus, the second hypothesis was also found to be valid.

An analysis of the entrepreneurial perceptions about Kerala as an industrial destination in comparison to the other three southern states revealed that Kerala's position as an industrial destination is less convincing, which support the third hypothesis stated in Chapter 1. It was also found that 'labour attitude' stands first in differentiating Kerala as an industrial destination. This supports the fourth hypothesis.

Notes and References

1. The NIC grouping is 'Rubber and Plastics' as indicated in Chapter 2.
2. 'Sevana Electrical Appliances Ltd' is a mother unit producing electrical goods, the components of which are mostly made in house-hold industrial units as family run affair. The technology input, equipment and training are provided by the mother unit. The whole set up is in a village called Kizhakambalam in the Ernakulam district of Kerala. More than hundred families are directly involved in the activity.
3. P.N.Roy, *A Dictionary of Economics*, New Central Books, Calcutta, 1986.
4. *Ibid.*
5. Report of P.R.Nayak Committee; Reserve Bank of India, September, 1992.
6. S.K.Chakraborty et.al., *Financial Management and Control*, McMillan India Ltd., New Delhi, 1981.
7. Arnold C. Cooper, 'Technical Entrepreneurship-What do we know ?', *Research and Development Management*, Vol.3, February, 1973, pp.59-64.

Chapter 4

ANALYSIS OF THE EARLY DEVELOPMENT PROCESS

4.1 Introduction

Development, in the modern context, implies the one which is achieved by deliberate human intervention. It is no longer considered a natural and gradual process. Various economic theories support the view that economic development is not an inevitable natural process but must be created and energetically advanced. This is done by a variety of co-ordinated measures designed to interrupt the free play of social and economic forces. By planned measures of stimulation, investment, innovation, developmental supports and controls, aggressive policies of economic development are pursued mostly by the governments in power. Thus, economic development can be induced, the nature of it being decided by the governments. Therefore, it has to be assumed that all countries and all regions were once in an under-developed condition and over a period of time the energy, ambition, invention and entrepreneurial qualities of a few resulted in the advancement of certain regions. This being the case, the initial developmental efforts that have taken place in any region assumes lot of importance not only from the pure economic

angle but also from socio-political angle. In fact, the nature and thrust of the early developmental efforts would considerably influence the future course of action. Therefore, it was felt necessary to critically study the early development process, especially the industrial development efforts in Kerala during the earlier periods before and after independence. However, for a complete picture of the developmental efforts, data pertaining to the recent times have also been analysed wherever necessary.

4.2 A brief account of the early socio-economic development in Kerala

Kerala state came into existence on November 1, 1956 when the Indian states were reorganised on linguistic basis. Malayalam speaking areas of the erstwhile princely states of Travancore and Cochin and, the Malabar district and Kasargod taluk of erstwhile Madras Presidency were brought together to form the present Kerala State. Thus, the present Kerala comprises the former three different administrative units viz; Travancore, Cochin and Malabar. Therefore, it is somewhat difficult to draw a unified picture of the state during the early periods. Often any early historical analysis about Kerala tend to linger around Travancore region because of the relatively better availability of data about this part of the state.

Though the geographical location of Kerala on the Western side of the Western Ghats isolated this region from the rest

of the country, the long sea-coast of this region was active with commerce and trade with foreign countries from as early as 3000 BC. Perhaps, the oldest trade link between India and outside world started with the spices trade in the west coast of Kerala. Calicut in the Malabar region had been the chief centre of spices trade and the first who entered into this trade relationship with the Zamorine of Calicut were the Arabs. The Jews and the Christians who arrived later during the first century AD were also concentrating in Calicut and also in Cranganore in Cochin state.¹ In 1341 Cranganore was washed away during a flood in the river Periyar and as a result lost its trade importance. The trade centre was later shifted to Cochin which soon developed into an important port with the Portugese efforts in the early fifteenth century. In those days, Quilon in Travancore also had commercial links with south China coast.² With the arrival of Vasco da Gama in 1498 to Calicut and the British by the early seventeenth century, the trade from the coast of Kerala flourished further. While the Dutch chose Cochin as their base the British East India Company mostly operated from Masulipattonam in the East coast. The early trade relationship with the outside world brought Kerala into contact with different races, religion and culture which led to a kind of cultural integration that helped in the later socio-economic process. The phenomenal expansion of trade and commerce during the latter part of the 19th century was facilitated by the construction of extensive road and canal net-work in the Travancore-Cochin states.

Historically, a kind of non-formal education existed in Travancore, Cochin and Malabar regions. These were organised around temples and were mainly local institutions of spiritual learning which were managed by private individuals. Due to the matriarchal system of the 'Nairs', a dominant caste, the women had much importance in the society. As a result of this, women were also sent to these local educational institutions. In almost every village, there were also private individuals known as 'Assans' (meaning teachers) who used to conduct classes in their homes for the local children. This system was known as 'Kudippallikkudams'. Later on, in some places, this system institutionalised into small schools run either by the temples or by important local individuals. However, this system did not cater to the educational needs of the lower caste Hindus. In any case, this indigenous system of education that prevailed in Kerala contributed significantly to the literacy level.³ With the arrival of Christian missionaries, especially the Protestant missionaries in the early 19th century, educational facilities were accessible to more people. This was mainly because of the fact that the missionaries received liberal aids for educational institutions from the native rulers who began to take much interest in education. The proclamation of the Queen of Travancore in 1817 that : "the state shall defray the entire cost of education of its people, in order that there may be no backwardness in the spread of enlightenment among them, that by diffusion of education they become better subjects

and public servants", showed a deliberate Government intervention in education.⁴ The next milestone in the early history of education in Kerala was the development scheme of T.Madhava Rao in the 1860's which linked Government jobs with educational qualifications. This was a major change from the past practice of confining government jobs to privileged families. This created a wide-spread high demand for education.

In the area of health care also Kerala had long history of successful indigenous medical system called 'Ayurveda'. This was practiced by individuals by virtue of inheritance in well known families known as 'Vaidyans' (Physicians). This indigenous medical system, the overall healthy climatic environment and the personal cleanliness of the people resulted in a comparatively better health of the people in this region.⁵ In the 19th century itself the Government followed a policy giving equal importance to both preventive and curative measures in health care. Provision for public latrines and disposal of rubbish under Town Improvement Committee in various places received high priority of the Government. Massive campaigns for the eradication of epidemics were also carried out. By 1935-36, about 74 per cent of the population was protected against small-pox and by 1937-38 almost all persons were covered by the vaccination scheme.⁶ Because of the high priority received for health care programmes from erstwhile rulers of Kerala, this sector also claimed a sizeable proportion of the state expenditure from the very early

days. For instance, the Government of Travancore which, in 1863, had an allocation of little more than one per cent of its total expenditure for the health care gradually enhanced this to 4.3 per cent in the beginning of the 20th century and to about 5 per cent during 1930s.⁷ Later on, this increased to more than 15 per cent during the post independent period. In the early 20th century itself Kerala had achieved a relatively low level of death rate and infant mortality rate. All these were a net effect of the high priority given to preventive medicine, sanitation and hygiene, public health, education and the spread of literacy.

With the regulation in 1818 encouraging the conversion of waste land for agricultural use, government lands were allotted to all those who were prepared to cultivate. This gave ample opportunities to thousands of 'Ezhavas' and 'Christians' who did not own much land earlier. This was followed by a series of land reforms such as the Property Rights on 'Sircar Tenants' and 'Pandaravaka Pattom Proclamation' of 1865, prohibition of eviction of tenants 1867, and the 'Kudian Regulation' of 1896. These agrarian reforms introduced by the then rulers were radical measures which benefited a sizeable proportion of the landless communities.⁸ Apart from the land reforms, there were several other welfare oriented measures such as the public distribution system started during the First World War, and the mid-day meal programme in the primary schools introduced in Travancore and Cochin during the early fourties.

4.3 The early industrial development efforts

Systematic and organised industrial development efforts in the erstwhile Travancore - Cochin States started sometime in the middle of the 19th century. But, even before this, there existed quite a few cottage and traditional industries catering to the daily needs of the society. Handloom, coir and wood based industries were some of them. The first industrial unit which could be called 'factory' was a textile mill established at Quilon by an American in 1881⁹. Soon a coir factory was set up at Alleppey. By the end of the 19th century, Calicut and Palghat witnessed the establishment of quite a few industrial units. By the beginning of the 20th century, a few rubber and tea industries were set up by the British planters. By this time, coir industry and handloom had taken shape as two traditional industrial activities. As per the 1931 census, the number of persons who were depending on industries was 15.1 per cent of the total population in the erstwhile Travancore State (Table 4.1). After providing benefit of doubt to changes in definitions and the instruments available for data collection, this figure in comparison to the corresponding 18.34 per cent in 1991 (see Table 5.28 in Chapter 5) is an interesting observation as the change over a period of 60 years had been relatively marginal.

Table 4.1

Number of Persons dependent on Industries in the
Erstwhile Travancore.

Year	No of persons	Per cent to total population
1901	5,19,325	17.9
1911	5,88,410	17.1
1921	7,20,837	17.9
1931	7,71,312	15.1

Source : T.K.Velupillai, *Travancore State Manual*, Vol.III, Government Press, Trivandrum.

As per 1931 census the number of persons employed in the factories in Travancore was 3,51,076 out of which 1,26,427 persons (ie; 36 per cent) were coir workers¹⁰. This shows the importance coir industry had during that time. By 1944, Kerala had the privilege to have the first fertilizer plant in India. Even before this, the Trivandrum Rubber Factory and Travancore Plywood Factory had come into existence. The Travancore Sugars and Chemicals Ltd., Travancore Ogle Glass Manufacturing Company, Forest Industries Travancore, Perumbavoor Rayons Factory, Travancore Titanium Products, Indian Aluminium Company, Sasoon Mills and Indian Rare Earths Ltd. were the other industries set up almost during a decade from 1936, mostly at the initiative of the then Diwan of Travancore, C.P.Ramaswamy. This impetus given to the industrial development of the region continued for some more time after independence. With the result, in the 1950s, the per capita manufacturing product in the erstwhile Travancore was higher

(Rs.48) than the then all India figure (Rs.37)¹¹. Thus, Travancore had showed remarkable industrial dynamism during the last decade of colonial rule and had the top most position among princely states as far as industrial development was concerned. However, the next decade saw a virtual stagnation in industrial development. Kerala also failed to partake in the process of industrial development which took place in the rest of the country during the first two Five Year Plans. Thus, during the first decade of planned development, the rate of growth of state domestic product (SDP) fell below that of the National Domestic Product (NDP) in the country as a whole. The share of the secondary sector in the SDP also declined with a rate of growth below the tertiary and primary sectors. Ever since, but for a brief period during the 1960's, the rate of industrial growth was poor. During the seventh plan period while the Indian industry grew by about 8.5%, Kerala's figure declined from 4.04% in the seventies to 1.22% in the eighties.¹² Now, Kerala remains as one of the most industrially backward states in the country. Despite the availability of a variety of natural resources entrepreneurial activities in this state are on a very low key. This has resulted in severe unemployment and underemployment. Today, though Kerala shares only 3.5% of the country's population, about 16% of the unemployed youth are from this state. Kerala also remains as an exception to the theories explaining richness and poverty in terms of 'resource endowment'.

4.3.1 The first ever Industrial Survey

The first ever Industrial Survey in this part of the country was conducted way back during 1917-18¹³. It was conducted in the erstwhile state of Travancore by a department opened for the specific purpose of surveying the state's industrial field. Dr.S.G.Barker, a British Officer in charge of the Industries Department was assigned to lead the task. The survey was completed in about two years time. The methodology adopted was to visit each place and conduct an industrial conference of the leading citizens. An Industrial Development Committee of three members was formed in each village of a taluk. Barker's staff consisted of two secretarial personnel and a chemical assistant for analysing field specimens and working out processes. In his report, Barker said : "the question of power is the most important one next to finance in our industrial problem. The question of the raising of capital for industrial purposes is a very difficult one to tackle. The State is not lacking in money, but there is a great shyness and unwillingness to invest except in assured enterprises". Barker identified the following five reasons for this situation :

- (a) The comparative safety of landed property.
- (b) The failure of various industrial enterprises.
- (c) The lack of confidence in industrial work.
- (d) The profit obtained by money lending, at high rates of interest.

(e) The lack of actual cash for investment purposes as much of the money is blocked in fixed assets.

Shellac industry, apiculture, pencil manufacture, matches, tapioca flour manufacturing, etc. were the industries suggested by him for demonstration. It was suggested that the Government should establish and run them for a while and hand over to the public at a later stage. When viewed back from the end of the century, it is almost clear that the overall industrial environment in Kerala have not changed much from what had been described in the survey of 1917-18. Though, many modern industries have been set up, mostly in the public sector, the fundamental societal problems with regard to entrepreneurship and infrastructure remains the same. Strong tendencies to invest in landed property and unproductive assets, lack of power and lack of proper demonstration continue to overshadow the industrial scenario making industry almost a low profile activity.

4.3.2 The effect of British intervention

The influx of British capital began entering into the region to a considerable extent only during the second half of the 19th century. British capital was mainly invested in the plantations¹⁴ The area under cash crop cultivation increased considerably during that period. In Travancore, various steps such as the creation of titles to land, changes in the

system of taxation and mode of payment, abolition of slavery, the introduction of the *kangani* system of recruiting labour in the plantations, import of paddy which in effect released land and labour from food crop cultivation, etc., were taken up under state initiative to promote cash crop cultivation. These resulted in the large scale commercialisation of agriculture. In the early decades of the 20th century, almost all the cash crops produced in Kerala had a growing demand from outside, and there was an increase in the area under cash crops in Travancore, Cochin and Malabar during this period. More and more plantation companies were opened.

Over a period of 40 years beginning from 1905 there was a rapid increase in the number of plantation companies and regions; agriculture was diverted to produce goods for the world market and the peasants became dependent on the world market in two ways. On the one hand, they were forced to buy goods such as textiles, metal products, kerosene, etc. produced in foreign countries and on the other hand they were forced to sell their primary produce in the international market. (This situation with the mere difference of importing from other states has almost continued in Kerala even to the end of this century as the value addition taking place on most of the primary produces within the state is negligible even now.) This integration of particular regions into the global dynamics of capitalist accumulation, in turn, had affected the spatial features of those regions. Agglomeration of population and productive forces in places of location

advantage became the rule. Many of the urban centres emerged as specialising in the export of various cash crops. Transport facilities were developed in such a manner that the plantation produce could be brought from the ghats directly to the ports. Many of the roads were built from East to West cutting across the main land. In addition to this, Kerala possessed numerous navigable waterways flowing down from the ghats to the coasts. During the 19th century, canals were dug under colonial initiative which linked up these natural water ways. Factories were established at river mouths and these canals were used for transporting timber and other hill produce including plantation products and for the carriage of heavy and bulky articles such as laterite , tiles, coconut products, etc. This peculiar nature of transport development affected the spatial system in a unique manner. Though trade began to absorb large numbers of the population ,it did not lead to large-scale agglomeration of population and activities in a particular region. Instead, there developed a crowd of small towns along the coast which were, in fact, natural harbours or ports built under colonial initiative. Some inland towns also developed as centres of exchange and agro-processing industries. This partly explains the unique spatial dispersal of towns and the absence of a dominant node in Kerala's urban system¹⁵. Therefore the degree of urbanisation in Kerala was always very low. Progressive concentration of productive forces and population in the few dominant centres was also on a low level. Similarly, large-

scale industrialisation, leading to agglomeration of people and capital did not take place. But the expansion of commercial agriculture demanded the production of semi-processed agro-products. The capital accumulation in agriculture and agro-based industries was further consolidated by investments in banking sector by the Syrian Christians. With the result, around that time, the majority of industries in Travancore were of the agro-processing type. In fact, around 65 per cent of the factory employment at that time was accounted for agro-processing industry. As per the 1921 census of Travancore, tea factories alone employed 33 per cent of the labour force¹⁶. Though these agro-industries were largely export oriented, they employed only very elementary production processes using low technology and exploiting the maximum from the labour force. Basic machines were imported from abroad. With the result there was hardly any scope for the development of inter-dependent industrial units especially general engineering and metal based industries. Thus, the agro-industries in Travancore was incidental to the commercial expansion of agriculture. Due to all these reasons, there was a virtual stagnation in terms of technological advancement and vertical integration in the industrial sector. As it can be seen from the analysis done in Chapter 2, the industrial base in Kerala, at least in the small sector, was predominantly agro-based that too with very little value addition. In addition to this, there was a tendency among some of the major industries like beedi, coir, cashew, han-

dloom, etc, to percolate down to small-scale production and then to household production. Thus, instead of a progressive concentration of productive forces, production was decentralised and it was moving down from higher forms of organisation to lower forms. Coir industry, a traditionally strong sector of this region is a classic example of this phenomenon.

4.3.3 Coir industry as an example

The Coir industry in India is over hundred years old. It is a traditional cottage industry whose earliest history is traceable to Kerala. Kerala state has almost an unrivaled monopoly for producing the white coir fibre and yarn. Kerala is endowed with an inland water system of canals, rivers and lagoons where sweet-cum-salty water provides for the natural chemical action to ret the green coconut husk that are consigned to it. The green coconut husk are allowed to lie in water for about 8 months before they are taken out, beaten and later spun to produce the white coir yarn. This stage of the cottage industry of producing coir fibre and coir yarn has been basically a household industry in the hands of women who form 82 per cent of the work-force. This is an unorganised sector employing over 3.85 lakh coir workers in Kerala and about 1.08 lakh persons in other coconut growing states¹⁷. In spite of the fact that there are about half a dozen Government promotional agencies for the promotion of coir industry, even by the nineties, only about 15

per cent of the coir industry could be brought under the organised sector. Therefore, as in the case of agriculture in small land holdings, modernisation and technological upgradation to meet the changing needs in the market and also to enhance the overall productivity were practically impossible in Kerala. An analysis of the growth and decline of the coir industry in Kerala itself would throw light on the factors which impeded the growth of this sector.

The coir industry tends to be located in coconut growing areas like Kerala. The land of coconuts provided abundant raw material and cheap manpower along its coasts where relatively only few other avenues were available for alternative employment. These factors contributed to the growth and development of the industry along the Kerala coast. Commodity production based on coir and its export started in Kerala sometime in the latter half of the 19th century. A Census survey conducted in 1921 revealed that there were 125 coir factories in the three regions (viz ; Travancore, Cochin and Malabar) of the present State of Kerala. 5840 men and 4173 women were employed in these factories. Out of these, 18 factories which employed around 4949 men and women were partially mechanised whereas the remaining 107 industrial units employed pure manual labour¹⁸.

As on March 30, 1981, there were 3,861 coir factories registered with the Coir Board. Of these, 3,658 units (94.7 per cent) was in Kerala. The remaining units were in Tamil

Nadu, Karnataka and Andhra Pradesh. In Kerala, defibering was done by the traditional method of retting coconut husks in backwaters for about five to twelve months whereas in the other states, defibering was done from green husk itself. Thus, Kerala produces retted golden fibre while other states produce unretted brown fibre.

As early as the 1930 s, strong trade union movement came into being in the coir sector. As a result, by 1956, a minimum wage act was introduced in this industry. From 1956 to 1971 this minimum wages almost rose by more than double. In 1968, Government introduced price control on raw husk and retting of husk was allowed only through licenses. Movement of coir to other states was restricted. Government also fixed the prices for raw and retted husks. By the 1950 s good number of Co-operative societies were established in this sector. The five year plans had also given due consideration for the development of this sector. During the fifth Five Year Plan, the Task Force of the Planning Commission prepared a developmental plan for Rs.44 crores. But, this developmental and revitalisation programme was not effective due to inadequate flow of funds from the Central Government¹⁹.

The performance of the Coir Primary Co-operative societies during the period from 1975-76 to 1992-93 as revealed by the figures in Table 4.2 would throw more light on the growth of

this industry. During the 1970 s and early 80s, though there was active government and trade union intervention in almost all activities of this sector, the employment generation, labour productivity and the wages earned, showed a declining trend. The wages had, in fact, declined to a level of only about a rupee per day in 1983-84. Figures from 1986-87 to 1991-92 show an improvement in the situation. But, in 1992-93 the trend once again seems to be a declining one. In other words, there is a fluctuation in terms of employment generation, productivity and wages. On the whole, the operational efficiency of this segment of the coir industry does not show much signs of improvement.

Estimated all-India production of coir products during 1986-87 was 83,700 tonnes, of which Kerala accounted for 72,380 tonnes (86.5 per cent). Only 15 per cent of the coir and coir products in the State are manufactured in the Co-operative Sector. The quantity of coir and coir products exported from India declined steadily from the mid-Sixties. The quantity of coir and coir products exported declined from 74,234 tonnes in the mid-sixties to 52,208 tonnes in early seventies. It has further decreased to 37,280 tonnes in mid-seventies, 28,610 tonnes in the early eighties and to 24,979 tonnes during 1988-89. Out of 816 Coir Co-operative Societies in the State as on 31-03-1993, only 447 societies were working. Out of 2.53 lakh members in Primary Co-operative Societies only 70,000 persons could be provided with work during 1992-93²⁰.

Table 4.2

Performance of Coir Primary Cooperative Societies
(1975-76 to 1983-84)

Year	No. of societies	No. of members	Employed members	Percentage employed	Per capita production (Quintal)	Average monthly pay (Rs.)
1975-76	211	1,06,000	32,590	30.74	3.91	56.77
1976-77	243	1,25,000	58,587	46.86	2.52	33.67
1977-78	354	1,56,000	61,518	39.40	2.19	28.78
1978-79	401	1,58,000	65,000	41.14	2.00	28.97
1979-80	409	1,96,000	66,000	33.67	2.29	34.60
1980-81	415	1,96,000	73,000	37.25	1.71	32.31
1981-82	462	2,15,000	89,000	41.40	1.79	28.00
1982-83	464	2,18,000	89,000	40.00	1.78	28.18
1983-84	468	2,18,000	85,000	38.9	1.35	27.54
1986-87*	429	2,22,000	75,000	33.78	1.30	41.66
1987-88	421	2,29,000	73,000	31.87	1.41	48.05
1988-89	419	2,32,000	77,000	33.18	1.51	44.26
1989-90	423	2,27,000	77,000	33.90	1.44	46.64
1990-91	447	2,46,000	80,000	32.52	1.66	59.60
1991-92	452	2,59,000	75,000	28.95	1.69	64.76
1992-93	444	2,53,000	70,000	27.66	1.47	61.75

* Figures pertaining to 1984-85 and 85-86 were not included as the 'number of societies' figures available were inclusive of non-working societies .

Sources : 1. State Planning Board, *Economic Review*, 1988 - 1993.
2. K.R. Rajan, *Keralathile Vyavasayangal*, State Institute of Languages, Trivandrum, 1987.

Kerala's coir industry, which had been enjoying monopoly in terms of quantity, quality and exports has been hit hard in recent years resulting in a series of crisis putting the whole industry in utter disarray. An analysis of the seventh plan period shows that coir exports have stagnated around

25,000 tonnes per year. The domestic sales, however, was not sufficient enough to offset the export lull. In addition, white coir, the prime product of Kerala's retted fibre which had been a more seasoned industry in Kerala has shown a progressive decline from 1.35 lakh tonnes in 1986-87 to 1.27 lakh tonnes in 1990-91. As against this, brown fibre, a product from non-retted husk, emerged since the 1960s in Tamil Nadu, Karnataka, Andhra Pradesh and Orissa, has been showing an expanding trend from 44000 tonnes in 1985-86 to 84000 tonnes in 1990-91²¹. The regression in white fibre production is attributed to reduction in the availability of coconut husks owing to drought and the affliction of coconut palms by root wilt disease. Besides, the control and regulatory measures introduced by the Kerala Government for the movement of husk have stood in the way of their unrestricted procurement. In addition to all these, the traditional method of retting and fibre extraction now considered as an unremunerative and unhygienic occupation is fast disappearing with the result that there are not enough retters for making retted fibre available to the industry. Again, fear of displacement of labour had resisted the modernisation of production technology in coir industry which is essential for upgrading the quality in coir products which alone can maintain and increase the share of coir products in the world market. Thus, the overall coir production picture in the state was dismal and a cause for much concern.

Problem areas in coir industry

The coir industry has been reckoned as an export oriented industry. On a national level the export earnings from coir in 1992-93 amounted to Rs.9,595.31 lakhs. Kerala alone produces about 80% of the coir and 90% of finished products in the country. However, coir faces competition from synthetic substitutes such as acrylic, nylon and polypropylene which were extensively being used in Europe for floor coverings and needle felts for wall-to-wall carpets. The European coir industries that use coir from India had developed PVC backed tufted coir door mats and door mattings which are more popular than the traditional items imported from India. Again certain vegetable fibres such as sisal yarn, esparto of Spain and varieties of grasses in China compete with coir. Thus, the demand for Coir and Coir Products in the foreign markets had decreased mainly because of the availability of cheaper substitutes, both natural and synthetic and also cheaper modes of production. This, essentially, points to the necessity for modernisation and diversification of coir industry, with a view to increase productivity, manufacturing new products having demand and introducing new designs, applications, etc.

Period of retting of husk could be reduced from the present 10 months to 3 months, if husks are crushed before retting. This would also reduce the period of locking up of working capital. But it requires more fixed capital for investment

in crushing machines. However, the question as to whether this will create shortage of raw husk has to be studied separately in more quantitative terms. As such, the quantity of husk procured by the Co-operative sector is only about 10 per cent of the husk available for the industry. Here, it may be noted that the average annual production of coconut in Kerala is about 470 crores²² (average for three years from 1990). About one-third of the total husk, that is 150 crores is estimated to be available for the coir industry. At the current level of production of coir, the industry utilise around 32% of the annual yield of coconut husk in the country. Therefore, there exists a vast potential for stepping up the production of coir in India if there is adequate demand. The Special Task Force on coir industry²³ formed in 1990 had noted that there is an impending threat to coir industry in Kerala due to the large scale mechanisation taking place in Tamil Nadu. It was pointed out that at Pollachi in Tamil Nadu, there were about 160 mechanical units for extracting fibre from raw husk. The price of raw husk at Pollachi at that point of time was Rs.130/- per thousand and the cost of production of fibre was less than Rs.200/- per quintal and the same was sold to Kerala customers at Rs.400/- per quintal. This fibre was made available at Alappuzha at the rate of Rs.450/- per quintal, whereas the price of retted fibre was around Rs.600/- per quintal. It was also found that mechanical spinning units were being established at Pollachi. A spinning factory with 60 spindle heads would have a produc-

tion capacity of about 3 tonnes of coir per day in two shifts. With these spinning mills in operation the fibre production in Tamil Nadu will cease to be complementary to the traditional coir industry and Kerala yarn would find it extremely difficult to compete with the raw husk fibre yarn in market segments like packaging, agriculture etc. The committee had observed that this is a major threat to the Kerala coir industry.

Production of retted golden coir fibre is almost a monopoly of Kerala. As seen earlier, in the adjacent States of Karnataka, Tamil Nadu and Andhra Pradesh brown fibre is produced from raw husks and the products manufactured out of brown fibre are sold at cheaper rates. This, in fact, affects Kerala Coir Industry adversely. Recently, Government of India had decided to offer 25 per cent subsidy to entrepreneurs setting up industrial units in the brown coir sector. Large quantities of husks are at present used as fuel in the eastern and mid-land areas of the State due to the prohibitive cost of transportation of husks to retting places in the coastal areas. The feasibility of starting brown coir units in the mid-land or eastern parts of the State was kept in abeyance due to policy decisions in favour of the labour force. Brown fibre is, in fact, required for the manufacture of rubberised coir mattress which has good market potential in India.²⁴

As far as the coir industry is concerned, the successive governments in power had almost adopted an over-emphasised pro-labour attitude, may be considering the fact that this is the largest traditional industry in Kerala. There were strict controls over mechanisation as well as on the procurement of raw husk for processing. These situations resulted in the gradual shifting of the industry into the neighbouring states, especially Tamil Nadu, where mechanisation was allowed. The conventional methods of production were also incapable of meeting the changing needs in the global market in terms of quality and design features. Mechanisation in defibering and spinning were discouraged on the grounds that this approach would displace large number of labour force. This argument cannot be blindly accepted as modernisation and technological upgradation of any industry would also generate opportunities elsewhere. In other words, a shift of job opportunities would have taken place. But, the overall effect would be the improvement in the working conditions of those already in the industry, better productivity and wages and also better standard of living. In fact, with so much of demand building up for bio-degradable items, especially in the developed countries, a modern coir-industry could capitalise on the present eco-friendly trend. From this point of view, there was, in fact, wide scope for gradual mechanisation of the coir industry as a whole. New eco-friendly products and applications such as the making of geotextiles for civil engineering purposes would have taken this

industry far ahead, much earlier itself. Mechanisation of coir industry would not only boost overall productivity of the industry but also would curtail the water pollution caused by the outdated methods of treating fibre.

An analysis of the distribution of employment among the various activities related to coir production itself reveal how primitive this sector remains in Kerala (Table 4.3). Firm estimates of employment, however, were available only in respect of the organised sector, viz; the co-operative sector.

Table 4.3

Estimated Number of Workers in Coir Industry in Kerala (1988)

Sl. No.	Sector	Number of workers (in '000)	Percentage Distribution
1.	Retting	48.00	11.16
2.	Beating and cleaning	131.10	30.49
3.	Spinning		
	a) Hand spinning	119.00	27.67
	b) Spindle spinning	93.70	21.79
	Total Spinning (a + b)	212.70	49.46
	Total Primary Sector	391.80	91.11
4.	<u>Manufacturing</u>		
	a) Mats sector	15.00	3.49
	b) Matting sector	4.70	1.09
	c) Rehanking of coir yarn	2.70	0.63
	d) Rope making	5.50	1.28
	e) Defibering and rubberising	0.30	0.07
	f) Allied items of work	10.00	2.33
	Total : Manufacturing	38.20	8.89
	Total Workers	430.00	100.00

Source : State Planning Board.

As is seen from the above table 91.11 per cent of the labour force is in the primary sector of the coir industry covering mostly manual activities such as retting, beating and cleaning, spinning, etc. The labour force in the manufacturing sector is only 8.89 per cent of the total work force in the industry. This picture, in a way, points to the low value addition taking place in the coir industry as most of the primary activities are long drawn manual processes employing traditional methods. For the very same reason, it should also be understood that the working environment would also remain primitive.

As a result of the emphasis on exports, which had made the coir industry thrive in the fifties and sixties, the internal market received virtually no attention at all until a few years ago. It was only when the export market faced a decline that the existence of a huge internal market and the need for development of this market began to be recognised. The sales outlets of the government and the government supported agencies had made only a marginal penetration into the internal market especially in the cold regions of north and north-east parts of the country.

Apart from the aforesaid reasons, it was observed that there was a gradual reduction in the availability of raw husk for the coir industry (Table 4.4). For instance, in 1993-94 there was a drastic reduction in the availability of raw-husk.

Table 4.4

Procurement and Processing of Raw
husks by Co-operative Societies

Year	Quantity (Nos. in crores)	Value (Rs. in Crores)
1981-82	19.00	1.89
1982-83	17.86	1.79
1983-84	11.39	1.25
1987-88	13.38	2.47
1989-90	11.81	2.71
1991-92	15.33	3.26
1993-94	10.94	3.09

Sources : 1. Directorate of Coir Development.
2. State Planning Board, *Economic Review*
(Various issues).

Table 4.5

Area, Production and Productivity of Coconut
in Kerala and India

Year	Area ('000 ha.)		Production (Million nuts)		Productivity (nuts/ha.)	
	Kerala	India	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1985-86	704.68	1225.6	3377	6770.3	4792	5524
1990-91	870.02	1513.9	4232	9700.2	4864	6407
1991-92	863.06	1528.9	4641	10079.6	5377	6593
1992-93	877.012	1617.6	5124	11375.4	5843	7032
1993-94*	881.64	--	5586	--	6336	--

* Provisional

Source : 1. Coconut Development Board
2. State Planning Board, *Economic Review*, 1993 and 1994.

Therefore, on a holistic approach the situation prompts to look into the coconut farming sector also which provides the husk for coir industry.

Coconut is the mainstay of Kerala's rural economy due to the multifarious applications of coconut tree and coconut. But the productivity of coconut in Kerala (a name derived from 'Kera' meaning coconut) is much less than the national average (Kerala : 5843 Nuts/ha, and all-India : 7032 nuts/ha as on 1992-93 ; see Table 4.5). The development of coir industry is naturally associated with that of coconut production. The area under coconut cultivation in India which was about 0.62 million hectares in 1950s had increased to around 1.5 million hectares by the 1980s. Production of coconut also increased from 3,582 million to 8,161 million nuts during this period. Kerala, Karnataka and Tamil Nadu are the major producers of coconut in the country. Kerala, which accounted for about 71 per cent of the total area of coconut cultivation in 1960-61, accounted for only about 59 per cent area in 1987-88. Kerala's share of coconut production also declined from 72 per cent to 48 per cent during the same period. Both Karnataka and Tamil Nadu, however, increased their shares in area of coconut cultivation and production with Tamil Nadu showing a remarkable productivity enhancement (Table 4.6 and 4.7).

Table 4.6

Trends in Area, Productivity and Production of Coconut in Kerala, Karnataka and Tamil Nadu

State	1952-53	1960-61	1970-71	1980-81	1984-85	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
Kerala											
Area ('000 Ha)	430	500	719	666	692	813	816.9	832.2	870.02	863.06	87712
Production (tonnes)	2,800	3,277	3,997	3,025	3,144	3,346	4,215.0	4,357.6	4,527.3	4,206.1	5,236.2
Productivity (Kg/Ha)	6,511	6,554	5,559	4,542	4,543	4,383	5,159.0	5,236.0	5,239.0	4,969.0	5,737.0
Karnataka											
Area ('000 Ha)	90	101	130	172	199	213	220.3	226.3	232.9	238.6	238.6
Production (tonnes)	384	469	660	894	1,030	1,096	1,134.6	1,166.5	1,201.6	1,227.6	1,251.9
Productivity (Kg/Ha)	4,266	4,644	5,077	5,198	5,176	5,146	5,150.0	5,154	5,159.0	5,145.0	5,246.0
Tamil Nadu											
Area ('000 Ha)	55	55	102	116	142	185	214.2	225.9	226.4	240.3	249.0
Production (tonnes)	431	430	930	1,101	1,446	1,578	1,917.8	2,362.4	2,353.3	2,755.8	2,817.3
Productivity (Kg/Ha)	7,836	7,818	9,118	9,491	10,183	8,476	8,953.0	10,912.0	10,416.0	11,468.0	11,314.0

Sources : 1. Coconut Development Board,
2. State Planning Board, *Economic Review*, 1991 and 1994

Table 4.7

Distribution of Share of Area and
Production of Coconuts in India

Year	Area distribution (%)					Production distribution (%)				
	Kerala	Karna- taka	Tamil Nadu	Others	*Sum	Kerala	Karna- taka	Tamil Nadu	Others	@Sum
1957-58	70.60	13.69	7.72	7.99	100 (671)	71.71	10.00	9.39	8.89	100 (4,476)
1960-61	69.55	14.13	7.65	8.69	100 (718)	70.98	10.17	9.31	9.54	100 (4,617)
1965-66	66.86	12.34	9.37	11.43	100 (875)	65.46	8.06	16.46	10.02	100 (5,090)
1970-71	66.11	12.31	9.69	9.88	100 (1,056)	66.40	10.96	15.46	7.18	100 (6,019)
1975-76	65.50	13.80	10.05	10.64	100 (1,087)	59.62	13.00	18.64	8.74	100 (5,875)
1980-81	61.48	15.85	10.68	12.00	100 (1,083)	53.60	15.84	19.52	11.04	100 (5,643)
1985-86	57.60	16.87	12.25	13.21	100 (1,213)	49.87	15.78	21.26	13.10	100 (6,687)
1987-88	58.98	15.45	13.41	12.16	100 (1,378)	48.34	14.88	21.29	15.49	100 (7,367)

* Figures in brackets are all-India total in '000 Ha

@ Figures in brackets are all-India total in tonnes.

Sources : 1. Unpublished official records of the Coconut Development Board, Cochin.
2. Economic Review, 1991 and 1994
3. CMIE (Various Statistical Reports)

It is evident from the tables that there has been a considerable locational shift in the area and production of coconut from Kerala to Tamil Nadu and Karnataka. There is clear potential of expansion of the coir industry in both Tamil Nadu and Karnataka due to the increased coconut production and increased availability of husk.

As described earlier white fibre is extracted from retted husks. Retting improves the tenacity and flexibility of the fibre. The colour of the fibre being whitish gold, it is known as white fibre. The bulk of white fibre is produced in Kerala (90%) and the balance in Kanyakumari district of Tamil Nadu. The other type of coir fibre, 'brown fibre', is extracted from the dry/green husks of matured coconuts without natural retting. This fibre is brownish in colour and was not considered suitable for spinning. However, the present trend is to utilise brown fibre also for manufacturing products. As such, in India, the main producers of brown fibre are Karnataka and Tamil Nadu. The estimated production of fibre during 1987-88 was, 1,96,612 tonnes - 1,30,600 tonnes of white fibre and 66,012 tonnes of brown fibre. Production of brown fibre has increased to about 85,000 tons in 1990-91 whereas that of white fibre has come down. A study on the production of fibre over the past few years shows a dynamic growth largely accounted for by the expansion of the brown fibre industry (Table 4.8). State-wise distribution of the production of brown fibre during 1989-90 and 1990-91 are given in Table 4.9 which shows that Tamil Nadu is poised for a quantum leap in the production of brown fibre.

The whole picture emerging out of the above analysis is that Kerala is gradually loosing out its grip over a traditionally strong area in terms of abundance of the resources as well as

Table 4.8

Production of White and Brown Fibre in India

(Tonnes)			
Year	White	Brown	Total
1976-77	1,41,000	19,000	1,60,000
1977-78	1,46,500	19,000	1,65,500
1978-79	1,46,000	32,000	1,78,000
1979-80	1,51,600	32,300	1,83,900
1980-81	1,26,500	32,300	1,58,800
1981-82	1,40,300	30,100	1,70,400
1982-83	1,44,380	30,100	1,74,480
1983-84	1,44,380	30,100	1,74,480
1984-85	1,14,770	34,500	1,49,270
1985-86	1,22,880	43,700	1,66,580
1986-87	1,35,000	77,750	2,12,750
1987-88	1,30,600	66,012	1,96,612
1989-90	1,25,900	67,630	1,93,530
1990-91	1,26,950	84,270	2,11,220
1991-92	1,27,000	92,600	2,19,600
1992-93	1,27,000	1,01,900	2,28,900
1993-94	1,27,000	1,12,101	2,39,101

Source : Coir Board, Annual Reports

Table 4.9

Production of Brown Fibre

State	1989-90 (tonnes)	1990-91 (tonnes)	Percentage change
Kerala	8,570	9,330	8.9
Tamil Nadu	33,750	45,000	33.3
Karnataka	16,760	17,100	2.0
Andhra Pradesh	4,300	7,185	67.1
Pondicherry	1,000	1,275	27.5
Orissa	1,250	1,380	10.4
Other States	2,000	3,000	50.0
All-India	67,630	84,270	24.6

Source : As in Table 4.8

the skill and know-how for value addition. Here, what is evident is the failure to adopt basic technological changes that are essential to keep a productive sector abreast of the times. Further, there is an apparent lethargy to take up an integrated and holistic approach towards developing a sector. Take for instance, the case of coconut oil. In spite of the fact that nearly six per cent of the vegetable oil production in the country is accounted for by coconut oil, a lion's share of which is produced in Kerala, coconut was declared as an oil seed by the Central Government only very recently. Apparently, the wide possibilities of commodity production and value addition based on coconut has not yet been fully exploited, the way other coconut producing countries such as Sri Lanka, Indonesia, etc. have done. Therefore, this may be a typical case indicating the absence of an approach integrating farming and commodity production, thereby resulting in the failure of capitalising on a major strength of the region.

4.3.4 The case of cashew industry

Kerala is the largest producer of cashew in India. Planned efforts for the development of this sector was taken up during the Second Five Year Plan. But, after 1976-77, the production of cashew was found to be on the decline. Several factors such as disease, destruction of cashew plantations

for planting rubber, etc. are attributed towards this. The area under cultivation, production and productivity of cashew farming in the state for almost four decades from 1955-56 is shown in Table 4.10. From the table, it is clear that there was a drastic reduction in the production and productivity of cashew. 1976-77 seems to have witnessed a sharp decline by about 29 per cent in production and productivity over the previous year. This sharp decline was not, however, found to be adequately explained in published documents and so was the case with the increase indicated over the period 1965-66 to 1974-75. However, from 1976-77 till 1992-93, the area under crop had been gradually declining except from 1976-77 to 1980-81 and the productivity almost undulating with a gradual decline in the 1990s. This is in spite of the fact Kerala has all the agro-climatic conditions for producing high quality and premium brand cashew which has demand not only in the global market but also in the domestic market.

Cashew is an important foreign exchange earner for the nation. The cashew industry built up in the country comprises of 690 processing units with an installed capacity of 6 lakh tonnes employing about 3 lakh workers. The internal production of cashew is only around 3.5 lakh tonnes and the import used to be around 1.7 lakh tonnes. Thus there is a wide gap between demand and supply. Cashew industry is categorised as a traditional industry in Kerala as it was an area of strength of this region and also due to the low level of

technology being employed in its processing. As such, the value addition in this industry has been estimated at 60 to

Table 4.10

Area, Production and Productivity of Cashew in Kerala

Year	Area (Ha)	Production (tonnes)	Productivity (Kg/ha)
(1)	(2)	(3)	(4)
1955-56	37460	58790	1569
1965-66	87370	98030	1122
1975-76	109100	119900	1098
1976-77	113326	87260	770
1983-84	142339	77375	543
1984-85	142139	75737	533
1985-86	137747	80203	582
1986-87	133517	96766	725
1987-88	121550	81481	670
1988-89	124780	108264	868
1989-90	123661	106258	859.20
1990-91	115620	102770	888.86
1991-92	112059	104601	933
1992-93	109035	95623	877
1993-94*	108610	75583	696

* Provisional

Sources : 1. Department of Economics and Statistics.
2. State Planning Board, *Economic Review* (various issues).

65 per cent. During 1991-92, the cashew factories in Kerala could provide employment to about one lakh persons, mostly women.²⁵

The Kerala State Cashew Development Corporation (KSCDC), a state owned enterprise could utilise only about 46 per cent of its installed capacity in 1992-93 reportedly due to the scarcity of raw-material. The Kerala State Cashew Workers Apex Industrial Co-operative Society (CAPEX) is a society registered in 1984 with the objective of organising cashew industry in the state on a commercial basis, rendering assistance to affiliated societies in the procurement and distribution of raw cashew nuts, arranging funds for processing and marketing of kernels and other items produced in the factories of the affiliated societies. Capex is also the sole agent of the state Government for the monopoly procurement of raw cashew nuts for ensuring fair price for cashew growers and equitable distribution of raw nuts among cashew processors. During 1991-92, the raw nut procured by CAPEX decreased to 1075.20 tonnes from 6269.84 tonnes in the previous year showing a decrease of 82.85 per cent from the previous year's level. The value of raw nuts procured also decreased from Rs.805.60 lakhs in 1990-91 to Rs.198.67 lakhs in 1991-92. The quantity as well as the value of cashew kernels exported by the society during 1991-92 had also decreased sharply from those achieved in the previous year²⁶. The number of primary

societies participated in the programme of monopoly procurement during the year 1992 was 472 as against 781 during the previous year. Thus, the analysis of the present state of the cashew industry give a totally dismal picture indicating almost a nose-diving tendency. Ironically enough, interactions with a few industrialists in this sector at Quilon, the major centre for cashew industry in Kerala, had revealed that the internal market for processed cashew itself is growing at a fast rate and reportedly is much larger than the total export demand.

A study of the trend in the import of raw cashew nuts into India for feeding as raw material to cashew industry is also highly revealing. As is seen in Table 4.11, during the late seventies and early eighties the import of cashew was on the decline and it touched the lowest figure of 1485 tonnes in 1982-83. During this period the productivity of cashew was low and the 'area under cultivation' was high. From 1983-84 to 1992-93, the import quantity has almost increased several folds. But, during the same period though there was a drastic reduction of 'area under cultivation' (from 142339 Ha in 1983-84 to 109035 Ha in 1992-93), the overall productivity had been improving except for a steep fall in 1993-94. Therefore, the overall picture is that of a fluctuation in production and productivity. The ever increasing imports for raw cashew nuts points to the increase in the demand for processed cashew. The steep increase in export value of cash-

ew, which has been somewhat offset by the import of raw nuts is an indication to this (Table 4.12).

Table 4.11
Import of Raw Cashew Nuts into India

Year	Quantity (M.T)	Index 1976-77=100	Value (Rs. crores)	Index 1976-77=100
1976-77	75122	100.00	18.33	100.00
1977-78	56299	74.94	17.98	98.09
1978-79	20496	27.28	9.16	49.97
1979-80	24232	32.26	11.60	63.28
1980-81	16280	21.67	8.71	47.52
1981-82	16057	21.37	18.37	100.22
1982-83	1485	1.98	1.41	7.69
1983-84	26877	35.78	22.12	120.68
1984-85	56161	74.76	38.84	211.89
1985-86	21945	29.21	24.37	132.95
1986-87	49149	65.43	71.16	388.22
1987-88	42609	56.72	64.38	351.23
1988-89	45150	60.10	61.37	334.81
1989-90	56248	74.88	76.66	418.22
1990-91	82639	110.01	134.00	731.04
1991-92	106080	141.21	266.68	1454.88
1992-93	134985	179.69	376.33	2053.08
1993-94*	190157	253.13	482.70	2633.39

* Provisional

Source : State Planning Board, *Economic Review*, 1994.

Table 4.12

Foreign Exchange Earnings of India from Cashew Industry

Year	Export Value		Total	Import value of cashewnuts	Net foreign exchanged earned
	Cashew kernels	Cashewnut shell liquid			
1985-86	22511	135	22646	2437	20209
1986-87	32755	148	32903	7116	25787
1987-88	31129	503	31632	6438	25194
1988-89	27393	220	27613	6137	21476
1989-90	36636	250	36886	8286	28600
1990-91	44224	556	44780	13400	31380
1991-92	66909	402	67311	26668	40643
1992-93	74549	381	74930	37633	37297
1993-94*	104154	280	104434	48270	56164

* Provisional

Source : State Planning Board, *Economic Review*, 1994.

One major conclusion which could be drawn from the analyses done so far is that cashew industry is in trouble mostly due to the scarcity of adequate raw nuts since mid-seventies from which time the production and productivity have been gradually declining. It was also observed that, of late, cashew workers could be provided employment only for less than 100 days in an year. In the earlier days this industry had flourished on large imports of raw nuts at cheaper rates from Mosambique, Kenya and Tanzania. Over the last one or two decades, these countries developed their own processing units. Now, the production of cashew nuts in Kerala is very much below the processing capacity of existing cashew factories in the state, the total processing capacity of all factories in the state being 4 to 5 lakh tonnes.²⁷ The State

Planning Board in one of its reports had pointed out that many industrialists took advantage of the scarcity of raw nuts to close down their factories and began processing on cottage basis in order to avoid the minimum wages and other benefits stipulated by the State Government.²⁸ It was also reported that they even shifted their factories to the nearby districts in Tamil Nadu where the wage rates were said to be one-third of those prevalent in Kerala. In order to mitigate the difficulties caused to the labourers as a result of the scarcity of raw nuts, the State Government announced several regulatory measures. In 1976 the Government of Kerala regulated the marketing of raw nuts produced in the State by fixing the price and appointing authorised dealers to purchase raw nuts. But this measure did not produce the desired results. Hence, in order to eliminate intermediaries exploiting the growers and to distribute equitably the indigenous raw nuts to the processing units, the State Government introduced monopoly procurement through the Kerala State Co-operative Marketing Federation Limited. The procurement price of nuts was fixed by Government every year based on market condition. Government also promulgated an order restricting the movement of raw nuts from one district to another in the State or from one place in the State to any place outside the State, except with the permission of the competent authority.

In February, 1983, the Government of Kerala abolished the system of monopoly procurement of cashew and instead fixed floor prices for raw nuts in different districts of Kerala.

Under this system the manufacturers were free to purchase raw nuts at or above the floor price fixed. They were obliged to process the nuts so purchased within the State itself.

Government of Kerala reintroduced the system of monopoly procurement in the 1988 cashew season, after a lapse of six years in order to process the maximum quantity of internal production of cashew nuts within the State itself so that maximum possible number of days of employment could be provided to the cashew workers. The task of procurement was entrusted with CAPEX. A target of 100,000 tonnes of raw cashew nut was fixed for 1988 cashew season. But only 63,040 tonnes could be procured. The procurement price fixed ranged between Rs.11.50 and Rs.13.00 per kg. and the selling price from Rs.13.00 to Rs.14.50 per kg.²⁹

Now, India as a whole faces the twin problems of competition in the cashew kernel trade and the dwindling supply of raw nuts from the producing countries. The price of raw nuts imported increased from Rs.1736 per tonne in 1970-71 to Rs.2446 per tonne in 1975-76 and to Rs.7602 per tonne in 1980-81. There was continuous increase in the price of raw nut. The price of raw nut imported in 1987-88 was Rs.15,915 per tonne, much above that paid to the indigenous growers. At the same time, cashew is one of the important foreign exchange earners and occupies a special position in the country's trade. However, India's share of cashew trade in the world market has been on

the decline. India held 99 per cent of the world trade of cashew during 1947-52. It decreased to 95 per cent by the early sixties and to 80 per cent in the mid sixties. India had 70 per cent of the market in the early seventies; but it had abruptly shrunk to around 40 per cent in the early eighties. Though the quantity exported has been on the decline, the total value realised has been on the increase due to the increase in unit price. Further, as stated earlier, the industries in Kerala are yet to make use of the growing domestic market for cashew products.³⁰

As far as the most recent price and demand for cashew were concerned, 1993-94 was better than 1992-93. While the average price in 1992-93 was Rs.20 per kg., in 1993-94 it was ranging from Rs.25 to Rs.30 per kg. The export of cashew also went up from 53241 tonnes in 1992-93 to 64000 tonnes in 1993-94. These aspects coupled with the highly skilled labour force in Kerala should have made this industry a promising one in this region.³¹

As in the case of coconut and coir, analysis of the growth performance of cashew also reveals the absence of a holistic approach integrating farming and industrial activities in this sector. This is the case with most of the developmental activities in the state wherein the lack of integration between various agencies and departments involved leave the whole activity ineffective. One way out of this situation is to form 'Task Force' groups such as the Commodity Boards

vested with the responsibility of overall development of a particular sector through a holistic approach. In this context, apparently enough, none of the other Commodity Boards could prove as effective as the 'Rubber Board'. Figures in Table 4.13 speak for themselves on the success of the developmental efforts in this sector. Here again, though Rubber Board had taken several steps to increase commodity production based on rubber, the fact that only 15% of the raw rubber produced in the state is locally value added is an indication of the ineffectiveness of the efforts for commodity production. But, in the case of coconut and cashew the vagaries of nature and diseases have been a menace to the farmers and hence, the fluctuations in the availability of raw materials may continue to be there. Therefore, what is important is to stress on high value addition of the available raw materials. This might necessitate modernisation of the manufacturing sector, which will, in turn, generate further inter-linked industrial activities.

From the above analyses and also based on the analyses done on 'resource endowment' in Chapter 6, it may be concluded that unless development of farming and commodity production are integrated, also aiming at high value addition, no region can achieve sustainable growth even in those sectors with very high resource endowment. This had been the major drawback in the industrial development approach followed in Kerala in its traditional sectors.

Table 4.13

Area, Production and Productivity of Rubber in Kerala and India

Year	Area ('000 ha.)	Kerala Production (M.T)	Produc- tivity (Kg/ha.)	Area ('000)	India Produc- tion (M.T)	Produc- tivity (Kg/ha.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1987-88	355.0	216,562	942	406.4	235197	944
1988-89	383.562	233,414	967	440.5	259172	974
1989-90	396.467	275,397	1025	460.341	297300	1029
1990-91	407.821	307,521	1079	475.083	329615	1076
1991-92	419.174	343,109	1139	488.514	366745	1130
1992-93*	428.864	368,648	1164	499.374	393490	1154
1993-94*	437.100	408,311	1228	508.420	435160	1215

* Provisional

Source : State Planning Board, *Economic Review*, 1994.

Earlier industry-specific studies had shown that wage cost in relation to productivity in a large number of industrial groups in Kerala's small sector was higher than its neighbours.³² If the technological changes that have taken place outside Kerala especially in those sectors such as coir manufacturing are taken into account, the improvement in productivity should also be expected to be higher outside Kerala. This further enhances the profitability in many of Kerala's traditional industries such as coir, cashew, etc. when they move out to states like Tamil Nadu.

4.4 Government policies and priorities

Government policies are intended to influence decisions on industrial location in line with the social objective of balanced regional development. Such public policies as a tool for correcting regional imbalances is well recognised in the Indian context. Unfortunately, perhaps due to the frequent changes of Government, firm political commitment over sufficiently long periods was absent in Kerala. This aspect of political instability has been dealt with in detail in Chapter 5. After 1956, the state was thrice ruled by a party which was not in power at the centre and the change from one party to another (or their coalition groups) occurred eight times in a period of about 37 years. Though, the situation of the same party (or the same coalitions) ruling the state and the centre has not brought any apparent benefit to the state, the frequent changes have reversed many a developmental efforts. Crores of rupees invested in various projects and also the expertise gained by the personnel on these projects have been wasted due to this reversal processes which followed every change-over. But, in general, most of the successive Governments in Kerala have been following a policy of developing service sector especially Education and Health. Though this resulted in improving the quality of life of the people of the state, industrialisation and overall economic development of the state was retarded. During the first Five Year Plan only less than 2 per cent of the state sector outlay was invested in the Industry and Mining Sector.

During Second, Third and Fourth Plan periods the investment under this sector was 7 to 8 per cent. There was slight improvement during subsequent plans. It was about 11 per cent during Fifth Plan, 8 per cent during Sixth Plan and between 10 and 11 per cent during Seventh Plan. During all these plan periods, the outlay for social services was more than 20 per cent of the total outlay. An analysis of the state-wise per capita plan outlays (Table 4.14) would reveal that Kerala also had a poor resource base by way of plan outlays when compared to most other states. Right from the First Plan to the Eighth Plan Kerala was only around the 9th position in this regard. Further, Kerala's per capita plan outlay, which was fluctuating around the all-India average figures till the Fourth Plan suddenly fell much below the national average in the Fifth plan of 1974-79 and remained so in all the subsequent Plans.³³

4.4.1 Industrial development thrust in the Five Year Plans

Serious efforts for industrial development in the State began only with the Third Five Year Plan in 1960, though at the national level the industrial development got high priority in the Second Five Year Plan itself. The industrial schemes in the First Five Year Plan, which was implemented prior to the formation of the State of Kerala, were confined to a few activities in the area of traditional small scale industries, like formation of coir co-operatives, survey of small industries etc. During the Second Five Year Plan also, the state

could not put any serious thought to industrialisation, except taking steps in the expansion of production in Kundara Ceramic Factory and the Kerala Cycles Private Ltd., in the

Table 4.14

State-wise Per Capita Plan Outlays (1st to 8th Plan)

State	I Plan 1951-56	II Plan 1956-61	III Plan 1961-69	Annual Plan 1966-69	IV Plan 1969-74	V Plan 1974-79	Annual Plan 1979-80	VI Plan 1980-85	VII Plan 1985-90	VIII Plan 1990-95
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Haryana	*	*	*	91	358	481	176	1385	1871	3462
Punjab	175	146	212	90	316	531	155	1179	1685	3239
Gujarat	58	76	108	84	204	376	115	1073	1485	2784
Maharashtra	37	57	103	83	199	372	121	983	1434	2346
Madhya Pradesh	34	48	84	44	114	254	87	687	1146	1677
Tamil Nadu	28	57	98	71	134	201	63	651	1063	1826
Orissa	56	54	120	60	113	207	72	536	897	3159
Assam	29	57	103	61	136	190	78	526	850	2080
Andhra Pradesh	33	52	91	58	98	236	79	584	841	1578
Uttar Pradesh	25	32	72	53	132	237	62	535	803	1509
Karnataka	46	62	100	70	128	276	81	614	799	2735
Kerala	31	49	101	73	156	224	67	578	727	1876
Rajasthan	39	53	97	56	120	237	80	577	718	2613
West Bengal	54	48	80	39	82	200	82	600	653	1434
Bihar	25	40	67	40	85	155	51	456	626	1505
All-India	38	51	92	61	142	262	85	687	1026	2147

* Not in existence

Sources : 1. CMIE, Various Statistical Reports.
2. Government of Kerala, *Facts and Figures*, 1990.

establishment of a spinning Mill in Trivandrum, and the organisation of coir and handloom co-operatives. Thus, virtually, the structure and pattern of industrial sector inherited from the past remained more or less the same, without much changes even by the end of the fifties. The actual plan expenditure for industrial development during the first two Five Year Plans (up to 1960-61) formed only 6.7 per cent of the total plan expenditure (Table 4.15).

During the Third Five Year Plan and the annual plans that followed, however, the industrial sector received little more consideration from the planners. The plan expenditure was Rs.1437.02 lakhs during the Third Plan and Rs.1334.99 lakhs during the Annual Plan 1966-69. They formed 7.9 per cent and 9.2 per cent of the total plan expenditure during the respective periods. During the years, 1960-61 to 1968-69, Kerala made some beginning in the reorganisation, expansion and modernisation of some of its existing public sector industries like, Kerala Ceramics, Kerala Soap Industry, Trivandrum Rubber Works, Soaps and Oils at Calicut, etc. In addition to this, the Kerala State Industrial Development Corporation was set up for the promotion of private industries and some steps were taken to promote and revitalise traditional and small scale industries. It was during this period the industrial estate programme was started and steps taken to expand large and medium industries in the public sector.³⁴

Efforts for further promotion of industries, particularly for the establishment of modern industries and the stabilisation of traditional industries continued with added emphasis during the Fourth and Fifth Five Year Plans. In fact, it was during the Fifth Five Year Plan (1974-78), followed by the two annual plans (1978-80) that maximum effort was taken by

Table 4.15

Plan Expenditure in the Industrial Sector in Kerala
from 1950-51 to 1990-91

		(Rs.in lakhs)		
Periods		Expenditure in Industry and Mining		Total plan expenditure
First plan	1951-56	50.43	(1.9)	2598.28
Second plan	1956-61	603.98	(7.4)	8021.78
Third plan	1961-66	1437.02	(7.9)	18231.01
Annual plan	1966-69	1334.99	(9.2)	14437.37
Fourth plan	1969-74	2602.11 *	(7.5)	34575.00 *
Fifth plan	1974-78	5477.51 *	(11.0)	49859.95 *
Annual plans	1978-80	6591.79	(15.0)	44955.91 *
Sixth plan	1980-85	16630.00	(9.2)	180162.00
Seventh plan	1985-90	27261.00	(11.3)	229922.00
Eighth plan (Outlay)	1990-95	60000.00	(14.0)	427500.00

Notes : 1. * indicates inclusion of special assistance.
2. Figures in brackets are percentages to total.

Sources : 1. Department of Economics and Statistics,
Statistics for Planning, 1989 and 1993.
2. Government of Kerala, *Facts and Figures*, 1990.

the Government in the industrial sector during the whole period of past four decades. The second half of the 1970's witnessed all - round attempts for exploiting the potential of the state for developing both medium and large industries. The Kerala Electronic Development Corporation (KELTRON) was established and a project for setting up of ten thousand small scale industrial units were launched during this period. The number of registered factories increased from 2608 in 1973 to 6317 in 1975 and further to 9106 in 1980, and the total employment from 239 thousand in 1973 to 300 thousand in 1980.³⁵ Thus, between 1973 and 1980, the number of factories increased at an annual rate of 19.56 per cent and employment at the rate of 3.30 per cent. The higher growth is indicated also by the index of industrial production during this period (Table 4.16). The eighties, however, saw a drastic decline in the index of industrial production.

Table 4.16

Index of Industrial Production		
Year	Index	Annual Growth Rate (per cent)
1970-71	100.00	- - -
1975-76	121.07	3.90 (1970/71-1975/76)
1980-81	187.10	9.10 (1975/76-1980/81)
1985-86	200.60	1.40 (1980/81-1985/86)
1987-88	175.19	- 6.55 (1985/86-1987/88)

Source : State Planning Board, *Economic Review*, Various issues.

4.4.2 Central investment in Kerala

The share of Central Public Sector investment in Kerala has been declining steadily and is now much low in comparison to

the region's share in the country's population. As on 31st March 1993, the Central Investment (in terms of Gross Block) in the industrial sector of Kerala had increased to Rs.2275 crores from Rs.2000 crores in March 1992 (Table 4.17). But, the share of Central Sector investment in Kerala has been steadily declining since 1975 from 3.2 per cent to a low of 1.3% as on 31st March 1992 (Fig.4.1). The share remained almost stationary at 1.31 per cent as at the end of March 1993. The annual compound growth rate in the central investment in Kerala (25.7) had also been lower than that at all-India level (34 per cent). The total central sector industrial investment in the country has increased from Rs.153893 crores in March 1992 to Rs.173501 crores by the end of March 1993, showing an increase of Rs.19608 crores during the financial year 1992-93. Out of this, Kerala received Rs.275 crores constituting 1.4 per cent of the incremental investment made by the Central Government in the industrial sector in the country as a whole. The five States of Maharashtra, Andhra Pradesh, Madhya Pradesh, Uttar Pradesh and Bihar together continued to account for more than 50 per cent of the total Central investment in the Country, as on 31-03-1992. (Table 4.18). This trend in higher central investment, mostly in the Northern States need not be associated with the North-South divide as concluded by Dholakia (1989) in his study on the regional aspects of industrialisation.³⁶ On the other hand, at least in the case of Kerala, this may typically be an indication of the following:

- (a) The peculiar regional characteristics which creates difficulties in following a national pattern of development approach and priorities.
- (b) Geographical remoteness from the country's Capital resulting in communication gaps, ineffective follow-ups, delayed sanctions etc.
- (c) Geographical remoteness and the resultant short falls on the part of the state government machinery in doing its 'business promotion'. Here, there is no escape from the fact that a Government official in Uttar Pradesh or Maharashtra would be able to follow - up and pursue a project proposal at New Delhi, much more effectively and frequently than an official in Kerala.

Table 4.17

Central Sector Industrial Investment in Kerala

(Rs.crores)

Year	Investment (Gross Block) as on 31st March, 1993		Percentage of Column (3) to Column (2)
	All India	Kerala	
(1)	(2)	(3)	(4)
1970	3795	116	3.06
1975	6242	202	3.24
1980	18161	423	2.33
1985	47323	831	1.76

(1)	(2)	(3)	(4)
1990	113430	1701	1.50
1991	130657	1853	1.42
1992	153893	2000	1.30
1993	173501	2275	1.31
ACGR	34%	25.7%	- -

Source: Economic Review, 1994

Fig.4.1

Percentage Share of Kerala in Total Central Sector Investment in the Country

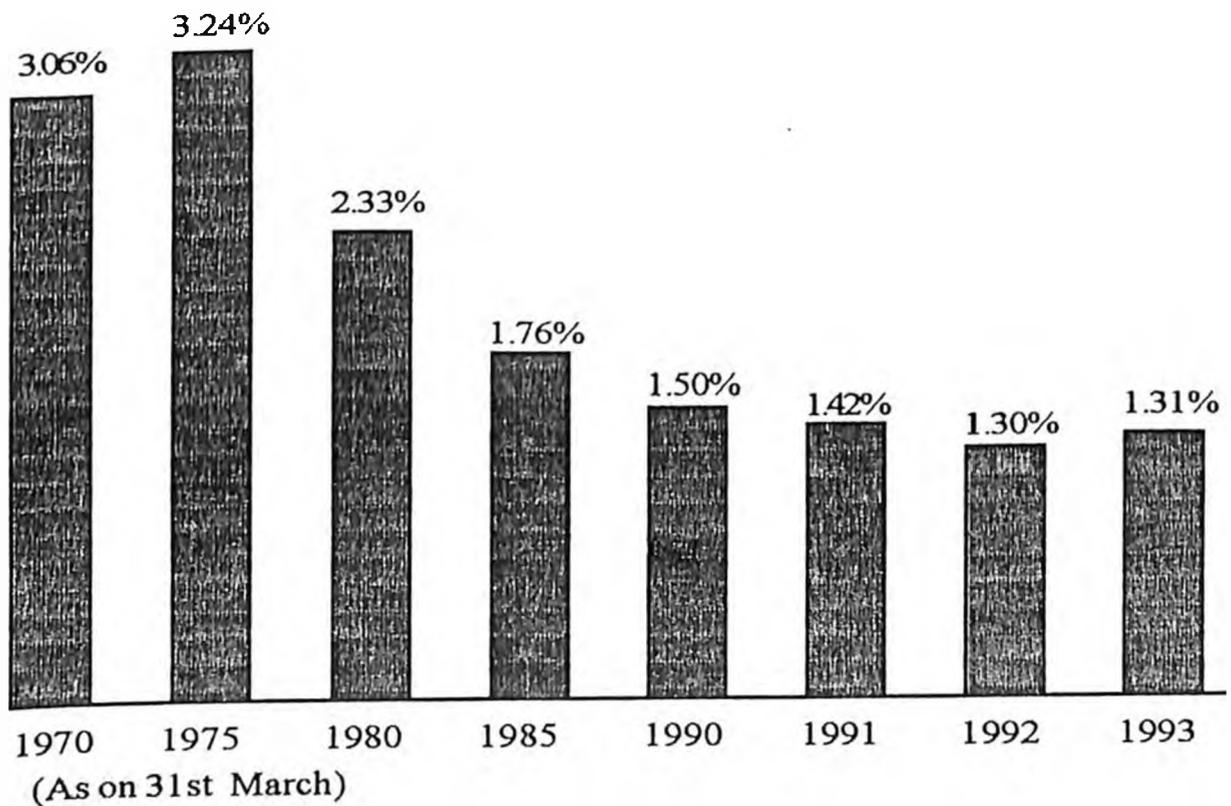


Table 4.18

**State-wise Distribution of Value of Property (Gross Block)
under Central Public Sector Enterprises**

(Amount in Rs. Crores)

Sl. No.	State/Union Territory	As on 31-03-1986		As on 31-03-1992		As on 31-03-1993	
		Value of Property	Percentage to total	Value of Property	Percentage to total	Value of Property	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Andhra Pradesh	5294	9.3	14557	9.5	15534	9.0
2.	Arunachal Pradesh	NA	NA	121	0.1	160	0.1
3.	Assam	3012	5.3	5872	3.8	6210	3.6
4.	Bihar	6312	11.1	12766	8.3	14023	8.1
5.	Goa	28	0.1	75	0.1	80	0.1
6.	Gujarat	2406	4.2	9674	6.3	10554	6.1
7.	Haryana	546	1.0	786	0.5	948	0.5
8.	Himachal Pradesh	326	0.6	1943	1.3	2091	1.2
9.	Jammu and Kashmir	84	0.1	1585	1.0	1905	1.1
10.	Karnataka	1547	2.7	2894	1.9	3610	2.1
11.	Kerala	923	1.6	2000	1.3	2275	1.3
12.	Madhya Pradesh	6844	12.0	14285	9.3	16115	9.3
13.	Maharashtra	9030	15.9	27869	18.1	33372	19.2
14.	Manipur	NA	NA	163	0.1	147	0.1
15.	Meghalaya	NA	NA	12	0.0	12	0.0
16.	Mizoram	NA	NA	55	0.1	155	0.1
17.	Nagaland	NA	NA	154	0.1	190	0.1
18.	Orissa	4073	7.2	8524	5.5	9267	5.3
19.	Punjab	603	1.1	941	0.6	1231	0.7
20.	Rajasthan	717	1.3	2665	1.7	2896	1.7

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
21.	Sikkim	NA	NA	38	0.0	57	0.0	
22.	Tamil Nadu	2954	5.2	7838	5.1	8610	5.0	
23.	Tripura			369	0.2	397	0.2	
24.	Uttar Pradesh	3310	5.8	14430	9.4	14935	8.6	
25.	West Bengal	4000	7.0	10816	7.0	13434	7.7	
26.	Andaman and Nicobar	}		17	0.0	18	0.0	
27.	Chandigarh			219	0.1	15	0.0	
28.	Daman and Diu		1448	2.5	NA	NA	1	0.0
29.	Delhi				7599	4.9	8363	4.8
30.	Pondicherry				20	0.0	25	0.0
31.	Others and Unallocated		3377	6.0	5606	3.7	6871	4.0
Total		56806	100.0	153893	100.0	173501	100.0	

Note : NA - Not available

Source : State Planning Board, *Economic Review* 1994 and earlier issues.

Central investment including long term credit from the central financial institutions was also not encouraging. The Task Force Report (1989) on Large and Medium Scale industries constituted by the State Planning Board had stated that :

the argument usually put forth by the authorities at the centre in support of this pattern of investment is that major part of the central investment goes to industries in the core sector on the basis of resource endowment of the areas concerned. However, the state had suggested several projects of 'foot-loose' nature from time to time for establishment in the central sector. None of these projects excepting a few expansion or diversification projects of the existing units is seen sanctioned so far...³⁷

Only, eighteen Central Sector Undertakings including five textile mills managed by the National Textile Corporation Ltd. were functioning in Kerala during 1993-94. They were :

1. Cochin Refineries Ltd., Cochin.
2. Cochin Shipyard Ltd., Cochin.
3. The Fertilizers and Chemicals Travancore Ltd., (FACT), Cochin.
4. Hindustan Newsprint Ltd., Kottayam.
5. Hindustan Latex Ltd., Trivandrum.
6. Indian Rare Earths Ltd., Udyogamandal.
7. Indian Telephone Industries Ltd., Palghat.
8. Instrumentation Ltd., Palghat.
9. Hindustan Insecticides Ltd., Udyogamandal.
10. Modern Food Industries (India) Ltd., Cochin.
11. H.M.T. Ltd., Kalamasseri.
12. Balmer Lawrie and Co. Ltd., Aroor.
13. Hindustan Organic Chemicals Ltd., Cochin.
14. Cannanore Spinning and Weaving Mills, Cannanore.
15. Vijayamohini Mills, Trivandrum.
16. Parvathi Mills, Quilon.
17. Kerala Lekshmi Mills, Trichur.
18. Alagappa Textiles (Cochin), Trichur.

An analysis of the performance of the existing central sector undertakings would be useful to find out as to whether it is the poor performance of the aforementioned units which re-

sulted in a consistently low level of central investment. This is all the more important considering the fact that many of the state public sector undertakings had been very poor performers. In 1979-80 there were 9 Government of India companies in Kerala out of which 5 were operating on profit. Out of the 16 Central Government owned companies which existed in 1986-87, nine units were operating on profit ranging from Rs.18 lakhs (in the case of H.M.T Ltd.) to Rs.4145 lakhs (in the case of FACT). By 1991-92 the number of units operating on profit became 11 out of a total number of 18. In 1993-94 this again rose to 13 units out of the total of 18. Thus, as in 1994 majority of the central public sector units (72%) were operating on profits, some of them like the Cochin Refineries Ltd., FACT, Hindustan News Print Ltd., Hindustan Organic Chemicals Ltd., etc. having shown remarkable performance.³⁸ Therefore, the low flow of central investment cannot be really justified in terms of the poor performance of the earlier investments made in Kerala. This observation also negates some of the arguments against Kerala's industrial climate.

Further, out of the 18 central sector units, only very few like Cochin Shipyard Ltd., Indian Telephone Industries Ltd., Instrumentation Ltd., and H M T Ltd. created avenues for down-stream commodity and component production in the small-sector. Out of this, the experiment of ancillarisation by creating H M T Industrial estate was a failure, primarily

due to rapid technological changes in the mother unit. Though enough data is not available, the rapid industrialisation of Andhra Pradesh, more specifically the region in and around Hyderabad, took place after large scale Defence production and research units were set up there. To begin with, Karnataka also had large scale public sector units such as the Hindustan Machine Tools Ltd., Hindustan Aeronautics Ltd., Bharat Electronics Limited, etc. which, in a way, helped the spawning of modern footloose industries. Kerala, however, failed to mobilise such central investments giving the necessary break to the stagnation after the setting up of a few large units in the early stages. In other words, in the process of historical development of Kerala, the policies followed both by the central and state Governments did not favour setting up of adequate engineering industries which would have provided enough stimulus to technical progress and inter-industry linkages. With the result, in the present context Kerala does not provide an advantage of the benefit of agglomeration of industrial establishments.

A Working Paper released by the National Council of Applied Economic Research (NCAER) in September, 1994³⁹ states that the proportion of industrial investment going to different States was obviously influenced by "friendliness" of the concerned state government and the general level of infrastructure, available skills, etc. When industrial licensing was in vogue along with high level of public sector investments, it was possible for the Government to direct

substantial investments into backward regions. Kerala is one of the few states which has not really benefited in the past from this approach mostly due to socio-political reasons. The NCAER paper adds that this approach no longer works as the government is unable to direct investments to specific locations, and therefore, industries will go to locations where they feel most beneficial. This argument points to an impending aggravation in the imbalances in industrial development between different regions and states, as in an economy left to the market forces alone, the rich regions might become richer and the poor regions might become poorer. For instance, an analysis of the approvals of Foreign Direct Investments (FDI) or the approvals of loans sanctioned and disbursed by the financial institutions shows that substantial investments funds are now flowing into a few states like Maharashtra and Gujarat followed by Uttar Pradesh, Madhya Pradesh, Karnataka, Tamil Nadu and Haryana, in that order. States like Kerala seem to be getting very little of such inflows. The NCAER report states that this growing imbalance is of serious concern since it could lead to a heightening of tensions between regions in the years to come. Added to this is the fact that some states are rapidly changing policies and procedures to woo the industry, while others are doing very little in this direction. Therefore, in an industrially backward state like Kerala, active Government intervention is a must for any further development and growth.

Studies in the west have shown that if an area is to develop and maintain entrepreneurship, organisations which can serve as *incubators* should be present or created.⁴⁰ Here, the assumption is that when a person starts a new enterprise he typically leaves some organisation. The characteristics of that organisation, which might be termed the 'incubator', influence entrepreneurship in a number of ways as given below.

- a. The incubator organisation affects the location of a new firm. Even though, professionals are geographically mobile at earlier stages of their careers, they rarely move at the time of founding their own enterprise. This could result in an industrial agglomeration in a region where a purposeful action is taken to set up major industrial ventures
- b. Established organisations influence the type of new businesses coming up in the nearby areas.
- c. Established organisations also appear to influence the motivational level of the small entrepreneurs.

From the above analysis, the natural conclusion would be that the governments in power in Kerala so far failed to effectively intervene in the industrial development of the region. There was an obvious absence of a realistic approach, political will, commitment and steady and long term policies for the creation of 'incubator' organisations in the region which

would have spawn many units in the small - sector. In the absence of the cumulative advantages of an industrial agglomeration, it is quite unlikely that the market forces in an open economy would direct more investments into this region. The state of Kerala, therefore, is in a precarious position as the central government has also changed its earlier method of intervention through direct investments.

4.5 State Level Public Enterprises

In Kerala, the State Level Public Enterprises (SLPEs) owe their existence more to historical factors than ideological considerations. A large number of the SLPEs came into being on account of historical necessity, in that, the erstwhile princely states were owning them prior to the formation of the present states of the Indian Union. Many of the present SLPEs were born on account of the decisions of the state government to wind up their departmental economic activities and organise them in the form of autonomous units. A large number of these enterprises were set up as public organisations to take advantage of the institutional funding from the long-term financial institutions and development banks as these institutions, as a policy measure, do not extend financial support to government departments.⁴¹ Many SLPEs were set up in pursuance of the enactments legislated by the Central Government to make the states of the Indian Union partners in propelling such activities and evolving a uniform frame work for the control and implementation of policies in

respect of such sectors. A large number of the SLPEs were set up to undertake promotional activities and to provide infrastructural and institutional support for the development activities of the states. A few others assumed entrepreneurial responsibilities.

Thus, State Level Public Enterprises (SLPEs) have come into being on account of historical conditions that differed between the states and on account of the decisions of various state governments to assume entrepreneurial responsibilities under conditions peculiar to the concerned states. Among the states in India, Kerala has the largest number of SLPEs though it has only the 6th position as far as investment is concerned (see Table 4.19 and Table 4.20). The study of the typology in terms of the number of the SLPEs points out that the relative importance of different kinds of SLPEs differed in the various states in view of their economic strategy⁴² (Table 4.21). Kerala's strategy of direct participation in manufacturing was, in a way, justified at that point of time as the flow of central investment into Kerala was not sufficient. Such state support aimed at encouraging investment in the region was inevitable as from the view of entrepreneurs, the relative return on investment in plantations and trade were higher than industry and were also less risky and strenuous. But, as it would be seen later, what went wrong was in providing strong political support and efficient management team to these SLPEs.

Table 4.19

Classification of SLPEs in terms of Organisational
forms as on March 31, 1992

State	Government companies	Statutory Corporations	Co-operative Enterprises	Public Authorities	Total
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	37	3	18	1	59
Arunachal Pradesh	3	0	2	0	5
Assam	30	3	5	1	39
Bihar	32	3	2	13	50
Goa	15	0	8	0	23
Gujarat	35	3	3	4	45
Haryana	18	2	18	1	39
Himachal Pradesh	8	0	4	1	13
Jammu and Kashmir	8	1	0	1	10
Karnataka	62	2	3	1	68
Kerala	93	3	4	4	104
Madhya Pradesh	20	2	3	1	26
Maharashtra	34	2	5	2	43
Manipur	15	0	0	0	15
Meghalaya	9	1	2	0	12
Mizoram	1	0	3	0	4
Nagaland	3	0	3	0	6
Orissa	29	3	11	0	43
Punjab	21	2	6	1	30
Rajasthan	19	3	17	4	43
Sikkim	7	0	2	0	9
Tamil Nadu	63	2	1	2	68
Tripura	7	0	3	0	10
Uttar Pradesh	69	2	2	1	74
West Bengal	33	1	3	0	37
Total	671	38	128	38	875

Source : Adapted from T.L.Sankar, et. al., 'State Level Public Enterprises in India - An Overview',
Economic and Political Weekly, August 27, p. W-115.

Table 4.20

Investment in SLPEs during 1985-86 to 1991-92

(Rs.in crores)

State	85-86	86-87	87-88	88-89	89-90	90-91	91-92
Andhra Pradesh	1781	2151	2579	3008	3688	4204	4733
Arunachal Pradesh	9	8	14	17	18	21	22
Assam	303	358	457	520	516	556	606
Bihar	770	818	782	941	995	1020	1052
Goa	124	145	173	209	288	376	467
Gujarat	1056	1162	1655	1625	1958	2313	2645
Haryana	501	530	623	652	659	737	900
Himachal Pradesh	112	134	164	220	239	269	278
Jammu and Kashmir	150	172	198	226	262	306	326
Karnataka	1931	2129	2290	2743	2843	3043	3428
Kerala	1083	1806	1835	2401	2651	2894	3119
Madhya Pradesh	359	516	595	677	765	826	858
Maharashtra	1391	1545	1716	1993	2326	2713	2740
Manipur	20	19	24	35	36	42	47
Meghalaya	40	45	49	64	69	74	76
Mizoram	0	0	0	0	0	1	1
Nagaland	129	147	159	178	190	184	207
Orissa	790	886	993	1203	1319	1522	1708
Punjab	678	703	521	440	523	677	623
Rajasthan	801	888	1022	1287	1089	1224	1325
Sikkim	22	28	27	28	23	27	33
Tamil Nadu	1449	1886	2008	2225	2602	2834	3312
Tripura	26	31	40	50	60	72	81
Uttar Pradesh	2394	3060	3736	4289	5136	5616	5878
West Bengal	1912	1866	2050	2516	3127	3660	3818
Total	17831	21093	24036	27547	39382	35211	38283

Source : As in Table 4.19.

Table 4.21

Category-wise Distribution of SLPEs

State	Commercial	Commercial cum Promotional	Promotional	Total
Andhra Pradesh	21	27	11	59
Arunachal Pradesh	2	3	0	5
Assam	23	11	5	39
Bihar	15	23	12	50
Goa	14	8	1	23
Gujarat	20	17	8	45
Haryana	19	16	4	39
Himachal Pradesh	6	7	0	13
Jammu and Kashmir	7	2	1	10
Karnataka	39	22	7	68
Kerala	71	24	9	104
Madhya Pradesh	11	13	2	26
Maharashtra	12	17	14	43
Manipur	10	3	2	15
Meghalaya	7	5	0	12
Mizoram	2	2	0	4
Nagaland	4	1	1	6
Orissa	16	26	1	43
Punjab	7	19	4	30
Rajasthan	27	12	4	43
Sikkim	6	2	1	9
Tamil Nadu	40	19	9	68
Tripura	4	3	3	10
Uttar Pradesh	24	22	28	74
West Bengal	29	8	0	37
Total	436	312	127	875

Source : As in Table 4.19

4.5.1 Sectoral distribution and investment pattern of SLPEs in Kerala

According to a review done in 1987-88 by the Bureau of Public Enterprises there were 100 State Government enterprises of

which eight were statutory corporations.⁴³ There were 92 enterprises registered as companies and 24 subsidiaries. The SLPEs in Kerala are under the administrative control of ten government departments (of which the Industries Department is controlling 58 enterprises) and the Bureau of Public Enterprises plays the co-ordinating role. There were seven enterprises that are at various stages of winding up or merger with other enterprises. Thus, there were 93 SLPEs (including statutory corporations) in effective operation and were engaged in a variety of activities ranging from infrastructural development and financial promotion, trading and marketing, public utilities, welfare measures and above all to the manufacture of traditional and modern industrial goods.

The total capital invested (share capital and long-term borrowings) in state public sector enterprises as in 1987-88 amounted to Rs.1835 crores. The distribution of this investment is highly concentrated with four enterprises - (1) Kerala State Electricity Board (Rs.671 crores), (2) Kerala Minerals and Metals Ltd. (Rs.135 crores), (3) Kerala Financial Corporation (Rs.123 crores) and (4) Kerala State Road Transport Corporation (Rs.111 crores) - together accounting for more than one half (56 per cent) of total state public sector investment. The frequency distribution of 87 SLPEs by capital size shows that investment in 19 units is less than Rupees one crore and in another 40, less than Rs.10 crores. The number of enterprises in the range of Rs.10 to 100 crores is limited to 24 and in the range above Rs.100

crores is only four. This pattern of distribution implies that state public sector enterprises are relatively small in size in Kerala.⁴⁴

The position is almost similar when employment is taken as the indicator of size. If the largest among the enterprises (viz. Kerala State Electricity Board, Kerala State Road Transport Corporation and the Cashew Development Corporation) are excluded the total employee strength of the nearly one hundred State Public sector enterprises is only around 50,000 or an average employee strength of around 500 persons. In fact, the strength of employees in the majority of SLPEs (63 out of 92) is less than 500 persons; employment in 42 enterprises in the range of 101-500 and in another 21 in the range of less than 100 persons.⁴⁵

A sector-wise break-down of SLPE investment for 1987-88 showed that the bulk of investment (43 per cent) and employment (44 per cent) is concentrated in public utilities. The second position goes to enterprises engaged in the manufacture of modern industrial goods with 33 per cent of total investment and 28 per cent of employment. This sector, which can be called the modern manufacturing sector, however, has the largest number of enterprises (59 enterprises) and the largest share (53 per cent) in the aggregate paid-up capital of SLPEs in Kerala. (see Table 4.22).

Table 4.22

Sectoral Distribution of SLPEs within Modern manufacturing

(1987-88)

(Rs. crores)

Sectors	No. of Units	Employment (Nos.)	Paid up capital (Rs.)	Investment (Rs.)	Profit(+)/Loss(-) (Rs.)
Electronics	10	4456 (3.32)	31.61 (7.52)	98.20 (5.35)	- 7.67
Engineering	11	2906 (2.09)	32.89 (7.83)	73.91 (4.03)	- 4.60
Electrical	5	3532 (2.54)	18.68 (4.45)	64.38 (3.51)	- 5.81
Ceramic and refractories	6	1522 (1.10)	13.57 (3.23)	22.22 (1.21)	- 1.54
Wood-based industries	3	924 (0.69)	2.36 (0.56)	8.43 (0.46)	- 1.57
Textiles	4	3014 (2.17)	12.08 (2.87)	27.07 (1.47)	- 4.84
Chemicals	10	6588 (4.74)	68.23 (16.25)	258.29 (14.07)	-12.17
Plantation and agro-based industries	10	13652 (9.83)	44.13 (10.51)	62.95 (3.43)	+ 1.00
Total modern mfg.	59	36594 (26.37)	223.55 (53.25)	615.45 (33.53)	37.23
Aggregate SLPEs	93	138756 (100.00)	419.82 (100.00)	1835.34 (100.00)	-79.71

Note : Figures in brackets are percentages to aggregate.
Source : State Planning Board

Within the modern manufacturing sector those industry groups which received investment priority were chemicals, electronics, engineering and electrical. All these together account-

ed for 80 per cent of capital invested in the modern manufacturing sector and 27 per cent of total state public sector investment in the state. In terms of paid-up capital, these four sub-sectors together account for nearly 68 per cent of total paid up capital of the modern manufacturing sector and nearly 36 per cent of the aggregate paid up capital of SLPEs in the state. The seventies witnessed a rapid growth in number of SPLEs in the modern manufacturing sector. Out of 57 SLPEs which were in operation in 1987-88 in the modern manufacturing sector as many as 30 were the ones incorporated during the seventies whereas 23 were prior to 1970 and only four in the eighties. Thus, it could be seen that in the 1970s the government in power had attached importance to the development of technology intensive modern manufacturing units, especially in the field of electronics. The Kerala State Electronics Development Corporation (KELTRON) and most of its subsidiary companies numbering to about 6 units were established within a short period from 1972 to 1976.

4.5.2 Size-structure of SLPEs

The distribution of state government investment within the modern manufacturing sector was found to be concentrated around the investment level less than Rs.10 crores (73.6 per cent of the total number of units). There is only one unit above Rs.100 crores and a mere number of 14 units in a wider range of Rs.10 crores to Rs.100 crores (Table 4.23).

Table 4.23

Size Structure of SLPEs

Size of investment	No. of SLPEs %	Size of Paid-up capital	No. of SLPEs %
> Rs.100 crores	1(1.8)	> Rs.10 crores	4 (7.0)
Rs.10 cr. to Rs.100 crores	14(24.6)	Rs.5 cr. to Rs.10 cr.	8 (14.0)
Rs.5 cr. to Rs.10 crores	12(21.0)	Rs.3 cr. to Rs.5 cr.	7 (12.3)
Rs.1 cr. to Rs.5 crores	15(26.3)	Rs.1 cr. to Rs.3 cr.	22 (38.6)
< Rs.1 crore	15(26.3)	< Rs.1 crore	16 (28.1)
	57(100)		57(100)

Note : > indicates 'greater than'
< indicates 'less than'.

Source : State Planning Board

The pattern of investment distribution shows one of the major problems confronting many state public sector enterprises, namely their un-viable financial and technological size. The Task Force on Public Sector Industries (1989) had argued that, constrained by its resources and under pressure to rapidly expand the industrial base of the state, the Government had in practice spread its resources thin across a large number of state public sector enterprises and that this has resulted in the installed capacity falling short of accepted minimum economic size in the Indian context and way below capacities of plants manufacturing comparable products in developed and newly industrialised countries. The Task Force

had also pointed out that the spreading of resources thin had adverse implications on the capital structure of the state public sector enterprises tilting them towards the debt. For instance, the debt: equity-ratio in the state public sector as a whole was as high as 3:1 whereas the ideal situation should have been a ratio hovering around 1:1.⁴⁶

4.5.3 Sources of borrowings

The high debt-equity ratio on the SLPEs in Kerala gives a deceptive picture of having mobilised investment resources from financial institutions. An analysis of the percentage share of different sources of funds (Table 4.24) would prove that a substantial part of long-term borrowings by SLPEs in Kerala was from the State Government itself. The analysis of data for three years (1985-86 to 1987-88) showed that, on an average, more than 16 per cent of long-term borrowings of the SLPEs in the modern manufacturing sector as a whole was provided by the state government. The borrowings from the government was of high order in some industrial sectors such as Textiles, Ceramics and Refractories, Plantation and Agro-based industries and Electronics. It appears that the tendency towards a high debt: equity ratio is aggravated by borrowing from the government to cover losses in the case of a large number of SLPEs in Kerala.⁴⁷ The SLPEs were also not found to have adequately tried for mobilisation of funds from the public by way of debentures, bonds, etc., as the sources

other than state government and financial institutions were found to be a mere 4.54 per cent.

Table 4.24

Percentage Share of different Sources of
Long-term loans of SLPEs
(average for 1985-86 to 1987-88)

Sectors	State Govt.	Financial Insti- tutions	Others	Total
Electronics	31.89	61.61	6.50	100.00
Engineering	16.07	74.95	8.98	100.00
Electrical	9.05	75.35	15.60	100.00
Ceramics and Refractories	42.57	27.77	29.66	100.00
Wood-based industries	8.82	91.18	--	100.00
Textiles	56.10	42.82	1.08	100.00
Chemicals	9.22	90.59	0.19	100.00
Plantation and agrobased industries	32.40	62.20	5.40	100.00
Modern mfg. Total	16.35	79.11	4.54	100.00

Source : State Planning Board

4.5.4 Cost-structure

The high debt-equity ratio arising out of the pattern of investment by SLPEs resulted in a sharp escalation of interest costs. Thus, interest payments accounted for a high share of total cost. The average share of interest cost in the total cost was as high as 11 per cent for the modern manufac-

turing sector as a whole (see Table 4.25). In some sectors the interest cost exceeded even 15 per cent of the total expenditure. They were Ceramics (17.3%) and Chemicals (15.02%).

Table 4.25

Cost structure of SLPEs in modern manufacturing :
Percentage Share of major items in total expenditure
(average for 1985-86 to 1987-88)

		(Percentage)							
Sector	Raw mat.	Fuel power	Enolu- ments	Int- erest	Adm. exp.	Sell- ing	Dep.	Others	
1. Electronics	54.83	0.51	11.10	13.22	7.28	5.14	2.34	5.58	
2. Engineering	61.57	4.16	11.05	5.10	5.71	4.83	3.82	3.76	
3. Electrical	53.89	1.53	17.95	13.41	4.42	1.78	3.90	3.12	
4. Ceramics and Refractories	19.64	8.92	36.78	17.29	5.84	3.75	5.87	1.91	
5. Wood-based industries	37.12	4.55	25.07	14.10	5.07	1.13	4.10	8.87	
6. Textiles	41.30	5.68	30.57	10.50	2.52	7.92	5.84	0.60	
7. Chemicals	22.68	20.78	12.63	15.02	5.23	5.64	10.07	8.00	
8. Plant and Agro-based industries	56.10	1.64	19.44	2.85	4.12	6.46	2.86	6.53	
Mfg. Total	42.56	9.42	14.62	11.40	5.35	4.92	5.98	5.75	

Source : State Planning Board

4.5.5 Working capital and inventory management

The Working capital requirements of SLPEs in Kerala were also found to be high as is evident from the high order of inven-

tory-sales ratio (Table 4.26). On an average the SLPEs in the modern manufacturing sector in Kerala kept inventory for five months as compared to the practice of three months in the private sector.⁴⁸ In fact, more than 60 per cent of enterprises maintained an inventory-to-sales ratio of more than three months. Considering Kerala's geographical remoteness from other industrially developed regions in the country and also because of the inadequate growth and diversification of its own inter-linked industrial structure high inventory levels are somewhat indispensable. Its economic remoteness and insularity necessitate holding large inventories of spares, components and raw materials and sometimes even finished goods. These structural constraints however cannot fully explain the high inventory-sales ratio in SLPEs in Kerala's manufacturing sector. The poor inventory management is also partly responsible.

Table 4.26

Inventory to Sales (months) Frequency Distribution of SLPEs
(average 1985-86 to 1987-88)

Sectors	Total	< 3 months	3-6 months	> 6 months	Average
(1)	(2)	(3)	(4)	(5)	(6)
1. Electronics	10	3	4	4	6.55
2. Engineering	10	3	5	2	5.63
3. Electrical	5	-	5	-	4.75
4. Ceramics and Refractories	5	2	-	3	8.79

(1)	(2)	(3)	(4)	(5)	(6)
5. Wood-based ind.	3	1	-	2	5.52
6. Textiles	4	1	3	-	3.00
7. Chemicals	10	7	1	2	3.47
8. Plantation and agro-based	10	6	1	3	3.28
Modern Mfg. Total	57	22	19	16	5.00

Note : < indicates 'less than' ; > indicates 'greater than'.
Source : State planning Board

4.5.6 Wage Cost

The monthly wage-rate of workers in a substantial number of enterprises (40 per cent of total) was in the low range of less than Rs.1200 per month. Therefore, the common argument that the SLPEs in Kerala are operating with high wages cannot be taken as a factor contributing for their poor financial performance. Ironically enough, a detailed analysis would show that at least in the case of 50% of the units, the value added per employee was less than the emoluments per employee (see Tables 4.27 and 4.28). This essentially points to the fact that though the wages in the organised sector is low, the labour productivity is also substantially low. In fact, apart from the overall management problems, this is yet another area which needs attention. A better picture with regard to low labour productivity is also obtained if the per capita value added for entire factory sector in Kerala (which comprises large number of SLPEs) is compared with that of a few high-growth states (Table 4.29).

Table 4.27

Labour Productivity and Employment in SLPEs
(average for 1985-86 to 1987-88)

(Rs. in lakhs)

Sector	Value-added per employee	Emoluments per employ- ee per year	Difference between col. 2 and 3	Wage share in value added (%)
1	2	3	4	5
1. Electronics	0.2466	0.1713	0.0752	69.51
2. Engineering	0.2918	0.2565	0.0353	87.90
3. Electrical	0.1799	0.2320	-0.0521	128.96
4. Ceramics and Refractories	0.0899	0.1285	-0.0386	142.87
5. Wood-based industries	0.0753	0.1670	-0.0917	221.84
6. Textiles	0.0745	0.1398	-0.0653	187.60
7. Chemicals	0.3039	0.2768	0.0272	91.06
8. Plantation and agrobased industries	0.0801	0.0677	0.0124	84.51
Modern Mfg. Total	0.1690	0.1616	0.0074	95.61

Source : State Planning Board

The in-take of manpower in excess of the actual requirement due to various extraneous pressures (more so, in the absence of adequate job opportunities in the private sector) was a problem which all the SLPEs in Kerala have lived with. This would have automatically reduced the value added per employee. In the Table 4.27, it can be seen that in those sectors such as electrical, ceramics, textiles and wood industries value added by the employees is not even adequate enough to pay the emoluments.

Table 4.28

Distribution of number of SLPEs where Value added per employee is less than Emoluments per employee
(average for 1985-86 to 1987-88)

Sectors	Number of enterprises		Total SLPEs
	Value-added < emoluments	Value-added > emoluments	
1. Electronics	4	6	10
2. Engineering	4	6	10
3. Electrical	4	1	5
4. Ceramics and refractories	2	3	5
5. Woodbased industries	3	0	3
6. Textiles	4	0	4
7. Chemicals	5	5	10
8. Plantations and agrobased industries	3	7	10
Total	29	28	57

Note : < indicates 'less than' ; > indicates 'greater than'.
Source : State Planning Board

Table 4.29

Per capita Net Value Added by Manufacturing Factory Sector
(at current prices) (Rs.)

States	Year				
	1970-71	1975-76	1980-81	1985-86	1989-90
Kerala	42	69	154	249	492
Tamil Nadu	75	122	254	463	848
Karnataka	62	98	162	287	487
Andhra Pradesh	29	66	109	287	487
Maharashtra	167	279	476	857	1266
Gujarat	108	189	334	574	899
Punjab	52	112	230	406	1064

Source : CMIE, Basic Statistics Relating to States of India, September, 1994.

It was also found that, on an average, one rupee of investment generated less than 65 paise worth of output (see Table 4.30). This is a very low figure as compared to a turnover-to-investment ratio of 3:1 for SLPEs in the country as a whole.⁴⁹ This is partially due to the inordinate delay in projects implementation due to which many of these units are left with obsolete equipment. Therefore, only very limited periods were available to them to capitalise on their equipment to meet the needs in the market. SLPEs resource constraints in taking up Research and Development activities and diversification added to the magnitude of the problem.

Table 4.30

Sales/Turnover-to-Capital Investment Ratio
(average for 1985-86 to 1987-88)

Sectors	No. of units	Range of ratio.				Average value
		< 0.5	0.5-0.9	1 - 2	> 2	
Electronics	10	5	1	3	1	0.86
Engineering	10	6	-	1	3	0.72
Electrical	5	2	2	1	-	0.61
Ceramics and Refractories	5	2	2	-	1	0.16
Wood-based industries	3	3	-	-	-	0.28
Textiles	4	1	3	-	-	0.37
Chemicals	10	4	2	-	-	0.62
Plantation and agrobased industries	10	6	1	-	3	0.61
Total Modern Mfg.	57	24	11	5	12	0.64

Source : State Planning Board

4.5.7 Capacity Utilisation of SLPEs

An analysis of the capacity utilisation of the wholly owned and Government majority companies in Kerala during 1987-88 revealed that only 11 units (11.7%) were having a capacity utilisation above 80 per cent. 39.3 per cent of the units were operating below 60 per cent capacity utilisation. The corresponding figures for the year 1992-93 also gave a dismal picture with regard to the operation of the SLPEs in Kerala (Table 4.31). Non-availability of power, not too easy access to raw-materials due to geographical insularity, economic remoteness from the rest of the country, low labour productivity, obsolete technology, high gestation period for the completion of projects, etc. are pointed out as the reasons for this poor capacity utilisation.

Table 4.31

Capacity Utilisation of Government owned and
Government majority companies in Kerala

Range of Capacity utilisation (%)	No. of units in 1987-88	No. of units in 1992-93
Below 20	17 (18.00)	16 (17.4)
20 - 30	11 (11.7)	14 (15.2)
40 - 59	9 (9.6)	19 (20.7)
60 - 79	6 (6.4)	5 (5.4)
80 - 99	5 (5.3)	11 (12.0)
100 & above	6 (6.4)	6 (6.5)
Not available/ not functioning	40 (42.6)	21 (22.8)
Total	94 (100)	92 (100)

Source : State Planning Board, *Economic Review*, 1988 and 1994.

4.5.8 Some recent statistics about SLPEs in Kerala

Finally, a look at the performance of all the Government companies put together during the period from 1984-85 to 1993-94 reveals a picture of poor performance resulting in overall net loss in all years, the loss in 1993-94 being Rs.20.47 crores. However, the number of profit making units have increased from 27 in 1984-85 to 46 in 1993-94 (Table 4.32). Statutory Bodies, however, have earned profits in the years 1984-85, 1985-86 and 1993-94. The overall summarised picture of performance is shown in Table 4.33.

Table 4.32

An overview of performance of public enterprise in Kerala (1984-85 to 1993-94)

(Amount in Rs.Crores)

Year	No. of* Units	Total Employment	Paid up Capital	Capital Invested	Units on Profit		Units on Loss		Net annual Profit/Loss
					No. of Units	Amount	No. of Units	Amount	
1	2	3	4	5	6	7	8	9	10
A. Government Companies									
1984-85	86	73197	185.41	646.02	27	10.32	53	27.58	-17.26
1985-86	88	73907	214.80	662.19	27	14.41	56	50.92	-36.51
1986-87	90	72859	315.21	786.28	25	15.22	51	65.19	-49.97
1987-88	85	72655	345.87	852.69	27	27.15	50	61.21	-34.06
1988-89	85	95368	412.96	968.62	25	28.76	56	62.92	-34.16
1989-90	88	97408	458.37	1078.59	30	25.13	56	66.39	-41.26
1990-91	90	97822	515.38	1232.05	35	34.23	56	86.72	-52.49
1991-92	91	97548	565.93	1386.95	32	45.38	57	132.70	-87.32
1992-93	92	96015	604.20	1522.89	44	63.31	43	126.12	35.44
1993-94	92	94619	662.44	1585.79	46	87.58	35	108.05	-20.47

1	2	3	4	5	6	7	8	9	10
B. Statutory Bodies									
1983-84	7	60091	50.02	509.95	2	12.59	2	21.55	-8.96
1984-85	7	64643	55.69	535.15	3	29.68	1	21.56	8.12
1985-86	8	66963	61.06	697.44	3	29.81	1	20.11	9.70
1986-87	8	66856	68.35	859.95	2	0.87	3	21.07	-20.20
1987-88	8	66101	73.95	982.65	1	0.23	4	45.88	45.65
1988-89	8	69424	573.59	1765.04	0	0.00	6	69.67	-69.67
1989-90	8	70150	646.13	2029.35	2	12.75	4	41.90	-29.15
1990-91	8	72950	691.28	2351.46	1	1.12	5	100.97	-99.85
1991-92	8	69173	741.41	2638.67	1	0.90	5	97.01	-96.11
1992-93	9	67621	786.09	2891.35	3	24.02	3	59.46	-35.44
1993-94	9	65981	831.72	3225.58	3	44.59	3	32.32	12.27

Note : Column (2) = Column (6) + Column (8). The difference if any is due to information not available or units not yet commenced commercial activity.

* Five units which are in various stages of merger/liquidation excluded

Source : Bureau of Public Enterprises, *A Review of Public Enterprises in Kerala : 1993-94*, February, 1995.

Table 4.33

Overall Performance 1991-93

Indicators	Rs. in Crores		
	1991-92	1992-93	1993-94
Capital invested	4025.62	4414.24	4811.37
Net Worth	391.92	355.19	488.45
Capital Employed	2755.62	2994.09	3396.08
Turnover	1877.57	2311.13	2387.99
Profit (+) / Loss (-)	-183.43	-98.25	-8.19

Source : Bureau of Public Enterprises, *A Review of Public Enterprises in Kerala : 1993-94*, February, 1995.

A further analysis in terms of the sector wise employment and investment distribution as in 1993-94 would also be

useful to get a picture of the nature of the industrial base with regard to the SLPEs in Kerala (Table 4.34). 59.94 per cent of the total investment lies in Public Utilities and 15.68 per cent in Development and Infrastructural establishments. The investment per employee is the highest (Rs.16.49 lakhs) in the case of Development and Infrastructural establishments. The maximum number of employment opportunities are generated by Public Utilities (40.37%), Traditional Industries (31.14%) and Plantation and agro-based units (8.39%), in that order. The percentage of employment in the plantation and agro-based units, and traditional industries is relatively much above that of modern manufacturing sectors. But, a look at the investment per employee of both these sectors would reveal that technologically they are far behind the other sectors. Thus, the overall picture does not reflect a strong modern manufacturing environment within the SLPEs.

In essence, a variety of related factors have resulted in the abysmally poor performance in the State Public Sector as a whole making them a burden on the state exchequer rather than generating surplus, besides meeting their social objectives. With the result, these organisations which would have acted as 'incubators' for small-scale entrepreneurs or which would have created 'spin-offs' into the small-sector have generated fear psychosis in the society with regard to the success of industries. In the process they also failed to create role models for potential entrepreneurs or managers. As in the case of the traditional industrial sectors, the experiences

with SLPEs also point to the lack of desire and commitment on the part of the successive Governments to strengthen the productive sectors of the economy which almost lead the SLPEs into a cesspool.

Table 4.34

Sector wise Employment and Investment distribution and Investment per Employee

(1993-94) (Amount in Rs. Lakhs)

Sl. Sector No.	Emplo- yment	% of total Employment	Investment	% of total Investment	Investment per Employee
(1) (2)	(3)	(4)	(5)	(6)	(7)
1. Development & Infrastructural	4574	2.85	75464.25	15.68	16.49
2. Ceramics & Refractories	1465	0.91	2209.02	0.46	1.50
3. Chemical Industries	7317	4.56	27663.54	5.76	3.78
4. Electrical Equipment	4242	2.64	15980.97	3.32	3.76
5. Electronics	3816	2.38	23065.53	4.79	6.04
6. Engineering	3485	2.17	16942.75	3.52	4.86
7. Plantation and Agro Based Units	13469	8.39	6682.14	1.39	0.49
8. Textiles	3015	1.88	4113.32	0.85	1.36
9. Wood Based Industries	848	0.53	723.92	0.15	0.85
10. Traditional Industries	50019	31.14	6468.59	1.35	0.12
11. Trading Units	3119	1.94	7325.98	1.52	2.34
12. Welfare Agencies	295	0.18	3520.3	0.74	11.93
13. Public Utilities	64843	40.37	288406.41	59.94	4.44
14. Others	93	0.06	2570.88	0.53	27.64
Total	160600	100.00	481137.60	100.00	3.00 (Average)

Source : Bureau of Public Enterprises, *A Review of Public Enterprises in Kerala : 1993-94*, February, 1995.

The Task Force on State Public Sector Industries had identified that there were 33 SLPEs with negative net-worth as at 1987-88. They also observed that 27 of them were in the modern manufacturing sector. Five out of ten SLPEs in the Electronics sector also had negative net-worth. This is a disappointing aspect as Kerala was the state which started the Electronic revolution in the seventies by setting up the Kerala State Electronic Development Corporation (KELTRON) and its subsidiary companies. This was set up primarily taking into account the human resources in the region and also on account of the fast growth expected in the Electronic Industry. KELTRON, being a pioneering venture in the country, had become an immediate success and could create a national level presence in the electronic consumer durables market as well as in development projects in transport and communication. But, as of now, Kerala has only a minuscule share of 3 per cent of the national production in this sector. Since sufficient 'spin-offs' did not take place, the private sector in Kerala now accounts for only 12% of the total production of electronic goods as compared to 70% at the national level.⁵⁰

Given all the above dismal picture of the performance of the SLPEs it could easily be said that the 'Managerial Performance' of these units have been poor. The crux of the matter lies in the failure to find the right men at the right time to man these units and also to allow them to perform freely

and without the 'watch dog' approach of a set of generalists positioned at the State Secretariat. Added to this was the fate of these organisations to work under the shadow of the political parties in power as far as recruitment, transfer and disciplinary actions are concerned. Senior bureaucrats were often posted and transferred from one unit to another as frequently as possible as the chief executives of these SLPEs. By the very nature of their service conditions, they were more or less generalists, and also remained sacrosanct from any adverse effect on their career on account of the failure of these units. For quite sometime, the SLPEs were like 'stop-gap resorts' for many of them, no matter whether the unit was performing or not. Even those civil servants who were committed enough to learn and gain expertise and perform were not able to do so on account of frequent transfers. The fact that during the past few years only about 50 percent of the SLPEs could operate on marginal profits while majority of the Central Public Sector Undertakings (CPSU) in Kerala were showing remarkable performance during the same period itself shows the casualness by which the SLPEs were managed by the State Government. The Task Force Report (1989) had, in fact, pointed out that a cursory look at the names of the Board of Directors of 55 SLPEs, in the modern manufacturing sector indicates that

Government officials (IAS or IPS) and politicians working as part-time chairman far exceeded the number of professionals. Though, not directly linked to the SLPEs, the analysis done with regard to the change of the Director of Industries and Commerce would throw light on the casualness with which these issues were handled by the Governments in the past. In the erstwhile Travancore starting with the year 1919, on an average each person appointed as the Director of Industries was allowed to stay for about 5 years with periods of stay as high as 9 years. After the formation of the state ie; after 1956, this average period of stay was found to be 2 years with durations as low as 4 months. This observation coupled with the fact that erstwhile Travancore recorded a high industrial growth points to the lack of political initiative and commitment to improve the performance of Government organisations. The situation has changed for the better after 1984 when the period of stay averaged out to about 3 years.⁵¹

Therefore, one of the most urgent requirement is not only to appoint professionals or if necessary those civil servants with proven abilities and aptitude but also allow them to stay for at least five years continuously. These appointments should be made through the Public Sector Enterprises Selection Board (even in the case of civil servants on deputation) or any other similar body created for the purpose and should not be merely a posting made by the Cabinet. Over a

period of time, depending on productivity and overall financial performance, the terms of employment of not only the chief executive, but also the other executives shall be made competitive and shall never be linked to State Government pay structure. Worker's benefits are often taken care by the Trade Unions. However, modern Management practices should be introduced to create a coherent group aimed at the betterment of the organisation. The workers should get primarily affiliated to the organisation as against the present trend of first getting wedded to the union and its activities. Trade Unions should be seen only as a collective forum to sort out issues beyond the control of individuals.

All said and done, Kerala experiences a geographical remoteness not only from the major business and industrial centres of the country but also from the country's capital. Given the fact that the transport systems are somewhat primitive and inadequate to cater to the needs of such a vast country, this geographical alienation has resulted in heavy costs of transportation of raw materials (especially in the case of primary industrial raw materials such as coal, iron ore, bauxite, etc.) and finished goods. Though a trivial reason, equally important is the problems associated with the mobility of the executives of these organisations to make their presence felt at the highest levels of decision making and also the important business deals taking place in the metropolitan cities. This geographical remoteness also make

the situation difficult to attract competent managers from elsewhere. This, of course, is apart from the large scale exodus of the highly competent and ambitious Keralite professionals to other states which provide immense professional opportunities. This migration of skill results in the less successful getting left behind manning many medium scale production units, a large part of which is state owned. Those who have gained expertise outside are found to return to the state, for personal reasons, and get under-employed. The net result is a vicious circle wherein the state enterprises find difficulty in coping with the fast economic growth elsewhere.

4.6 Early experiments with Industrial Estates

During the Second Five Year plan, as part of the various steps taken by the government to develop small scale industries, industrial estates were set up in different parts of the state. It was originally planned to establish one industrial estate in each district. However, 7 estates could only be completed during the Plan period. All put together, there were 192 sheds in these estates. In the third Plan period 11 more estates were completed. During the third Plan period, when the Small Industries Development Corporation (SIDCO) was set up, all the 18 estates came under its control. The infrastructural facilities then developed were classified into major and mini industrial estates, functional industrial

estates, development areas and development plots. The major industrial estates managed by SIDCO and the details⁵² with regard to the occupancy position in the sheds in these estates are given in Table 4.35.

Table 4.35

Major Industrial Estates (under the control of SIDCO)
and their occupancy position as on 31-03-1988

District/Location of Industrial Estate	Number of sheds			Number of Unit		
	Occu- pied	Vac- ant	Total	Work- ing	Idling & defunct	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I. Major Industrial Estates :						
<u>Trivandrum</u>						
1. Pappanamcode	42	-	42	17	4	21
<u>Quilon</u>						
2. Umayanallur	42	1	43	19	8	27
3. Karunagappally	18	1	19	4	6	10
<u>Alleppey</u>						
4. Kollakadavu	40	-	40	19	5	24
5. Shertallai	19	-	19	6	5	11
<u>Kottayam</u>						
6. Ettumanoor	57	-	57	16	10	26
7. Changanacherry	33	-	33	22	1	23

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Ernakulam</u>							
8.	Palluruthy	7	-	7	7	-	7
9.	Mudickal	21	-	21	12	1	13
<u>Trichur</u>							
10.	Ollur	48	-	48	36	5	41
11.	Kallettinkara	19	-	19	13	1	14
<u>Malappuram</u>							
12.	Manjeri	19	-	19	12	4	16
<u>Palghat</u>							
13.	Karakkad	22	-	22	12	-	12
14.	Olavakod	47	2	49	13	6	19
<u>Kozhikode</u>							
15.	West Hill	42	-	42	24	3	27
<u>Cannanore</u>							
16.	Palayad	11	-	11	8	1	9
<u>Kasaragod</u>							
17.	Vidhyanagar	27	12	39	15	2	17
Total :		514	16	530	255	62	317
		(97)	(3)	(100)	(80.4)	(19.6)	(100)

Note : Figures in brackets are percentages to total.

Source : State Planning Board, Report of the Task Force on Small Scale Industries, 1989.

In 1975 a separate Commissionerate was formed to achieve rapid and planned small-scale industrial development. The Commissionerate had worked out a plan to develop 10,000 new small-scale industries over a period of four years. For this, it was planned to set up one mini industrial estate in each Panchayat. Thus, as per the original plan 1000 mini industrial estates were to be set up in about 1000 panchayats in the state, accommodating 10 industrial units in each mini industrial estate. But, over a period of four years, only 109 estates could be built up; 36 of them were under the control of SIDCO while the remaining 73 were under the control of the Industries Department. The list of mini industrial estates under SIDCO, with the details of their occupancy are given in Table 4.36.

Table 4.36

Mini Industrial Estates in Kerala

District/Location of Industrial Estate	Number of sheds			Number of Units		
	Occu- pied	Vacant	Total	Work- ing	Idling & defunct	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Trivandrum</u>						
1. Ulloor	11	-	11	7	3	10
2. Varkala	10	1	11	3	6	9
3. Vellanad	9	2	11	7	-	7
4. Anad	9	2	11	6	4	10

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
<u>Quilon</u>							
5.	Chithara	8	3	11	3	3	6
6.	Thrikkovilvattom	11	-	11	7	1	8
7.	Chadayamangalam	8	3	11	1	2	3
<u>Alleppey</u>							
8.	Kadakarappally	11	-	11	6	3	9
9.	Mararikulam	9	2	11	2	6	8
<u>Pathanamthitta</u>							
10.	Pandalom	8	3	11	4	2	6
<u>Kottayam</u>							
11.	Nattakom	11	-	11	8	2	10
12.	Ayarkunnam	11	-	11	9	-	9
13.	Pampady	11	-	11	6	-	6
<u>Idukki</u>							
14.	Olamattom	11	-	11	7	2	9
15.	Kodikulam	10	1	11	6	3	9
16.	Adimali	10	1	11	5	3	8
<u>Ernakulam</u>							
17.	Vazhakulam	7	4	11	6	2	8
18.	Rayamangalam	10	1	11	6	3	9
19.	Piravom	11	-	11	1	9	10
20.	Kothamangalam	8	2	10	7	2	9
21.	Edathala	8	2	10	4	1	5
<u>Trichur</u>							
22.	Mala	10	1	11	8	2	10
23.	Kattoor	11	-	11	8	1	9
24.	Arimpur	11	-	11	8	2	10

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Palaghat</u>						
25. Ottapalam	11	-	11	7	3	10
26. Vaniyankulam	11	-	11	7	4	11
27. Pattambi	11	-	11	6	2	8
<u>Malappuram</u>						
28. Edavana	11	-	11	4	4	8
29. Oorakam	11	-	11	6	2	8
30. Kokkooor	7	4	11	5	2	7
<u>Wayanad</u>						
31. Sultanbattery	11	-	11	8	2	10
<u>Kozhikode</u>						
32. Kadalundi	10	-	10	8	2	10
33. Perambra	11	-	11	8	2	10
<u>Cannanore</u>						
34. Baliapattom	11	-	11	9	-	9
35. Taliparamba	11	-	11	8	2	10
<u>Kasaragod</u>						
36. Kanhangad	11	-	11	8	2	10
Total	361	32	393	219	89	308
	(92.00)	(8.00)	(100.00)	(71.00)	(29.00)	(100.00)

Note : Figure in brackets indicate the percentage to total

Source : As in Table 4.35

From the tables shown above, it could be seen that about 20 per cent of the units in the major industrial estates and 29

per cent of the units in the mini industrial estates are defunct or idling.

The other type of infrastructure provided by the Government was the Industrial Development Plots and Areas, the details of which are given in Table 4.37. The land earmarked for small-sector are called Development Plots and that earmarked for medium and large scale units are called Development Areas. Of late, the Government has almost gone back on the idea of developing new Development Areas or Plots. Instead, a national level concept called 'Industrial Growth Centres' where small, medium and large scale units would co-exist have been planned for. But, here again, the whole concept is lying in report form since 1992, primarily due to the basic problem of identifying sufficient acreage of continuous land for the five growth centres proposed for Kerala. In fact, at the report stage itself much down-sizing of the original concept had to be done to make it suitable for Kerala. This basic problem, coupled with political criteria for locational decisions and the usual bureaucratic delay, in all possibilities, would prolong the actual implementation.⁵³ However, the 'Technopark' at Trivandrum and other similar industrial parks coming up at Palghat and Ernakulam under the umbrella of the recently formed Kerala Industrial Infrastructure Development Corporation provide rays of hope.

Table 4.37

Industrial development areas and plots in Kerala

District	Location	Area (Acres)
I. <u>Development Areas</u> :		
Trivandrum	1. Kadakompally	109.63
Alleppey	2. Aroor	46.86
Ernakulam	3. Edayar	435.22
Palghat	4. Angamally	218.20
	5. Pudukseri	134.15
Sub Total : I		(5 nos.) 944.06
II. <u>Development Plots</u> :		
Trivandrum	1. Manvila	27.53
Quilon	2. Mundakkal	17.16
Alleppey	3. Punnapra	57.28
	4. Changannur	5.50
Kottayam	5. Vaikom	5.57
Ernakulam	6. Kalamassery	78.45
	7. Angamaly	31.91
Kozhikode	8. West Hill	12.63
Trichur	9. Athani	62.00
	10. Kunnankulam	3.04
Kottayam	11. Poovamthuruthu	41.32
	12. Athirampuzha	1.00
Sub Total (II)		(12 nos.) 343.39
Total Area		1287.45

Source : As in Table 4.35

In 1982, a committee was set up under the chairmanship of the Industries Commissioner to study the problems of the industrial units in the mini industrial estates. The committee had found that out of a total of 1094 sheds in these estates 82 sheds were vacant as on December, 1983. Out of the 1012 occupied sheds industrial units had begun functioning only in 783 sheds. Of this, as on the month of study only 480 units were working.⁵⁴ This means that the success rate in terms of the fruitful usage of mini industrial estates was only around 47 per cent.

The sample survey conducted among small-scale units (for details see Chapter 3) had revealed that except for the availability of sheds at cheaper rate and a partial benefit of agglomeration, the industrial estates have not provided any advantage in terms of infrastructural facilities such as power, water, etc., and also common process facilities.

4.7 Other infrastructure building efforts

Having come to the conclusion that providing vital infrastructure, and an environment having the benefit of interlinkages between industries and also other social institutions are essential pre-requisites for any rapid industrialisation programme, it was decided to analyse the infrastructural development efforts in Kerala in comparison to a few other states.

Centre for Monitoring of Indian Economy (CMIE), in its report on the *Basic Statistics Relating to States of India* (September, 1994) had presented an 'Index of Relative Development of Infrastructure' to compare the development of infrastructure among states.⁵⁵ Indices were computed for the period from 1966-67 to 1992-93. As per this, Punjab (205 points) was found to lead consistently in infrastructural facilities and was way ahead of the other states. Kerala had the fourth place (140 points) after Goa (171) and Haryana (152 points). This again being a paradoxical feature of Kerala having good infrastructural facilities and a poor industrial record, it was felt necessary to go into further details. For this, the infrastructural facilities were classified into (a) Social infrastructure and (b) Vital infrastructure for industries (though these may overlap at times) and the following factors were chosen for the detailed analysis :

A. Social infrastructure

- (a) Per capita expenditure on water supply and sanitation
- (b) Persons per doctor
- (c) Persons per hospital
- (d) Per capita expenditure on health

- (e) Gross irrigated area as a percentage of gross cropped area
- (f) Per capita expenditure on education
- (g) Area served by a post office

B. Vital infrastructure for industries

- (a) Growth rate of power generation
- (b) Percentage of villages electrified
- (c) Average electricity tariff
- (d) Railway route length
- (e) Railway route per thousand sq. km area
- (f) Road length per thousand sq. km area
- (g) Persons per telephone set
- (h) Number of bank offices per lakh of population
- (i) Credit-Deposit ratio of public sector banks

The above factors were selected not only based on their importance but also considering the limitations in the availability of data for all the fourteen states which have been compared. Separate comparative statements have been made for both the sets of factors and are shown as Tables 4.38 and 4.39.

Table 4.38

Comparison of Factors Relating to Social Infrastructure

Sl. No.	States	Per capita expenditure on water supply and sanitation (Rs.)		Persons per Doctor ('000 - persons)		Persons per hospital ('000)		Per capita expenditure on health (Rs.)		Gross irrigated area as % of gross cropped area		Per capita expenditure on education (Rs.)		Area served by a post office (Sq.km)	
		1970-71	1992-93	1971	1991	1974	1991	1975-76	1992-93	1971-72	1990-91	1975-76	1992-93	1980-81	1992-93
1.	Andhra Pradesh	0.11	20.02	4.51	2.02	102	57	11.71	60.49	29.9	40.7	19.6	203.7	17.27	16.96
2.	Assam	0.00	31.03	3.37	2.14	146	84	12.17	63.79	19.8	15.1	26.8	315.6	31.97	22.31
3.	Bihar	0.37	17.56	5.39	3.27	261	290	7.53	43.58	26.1	40.0	14.3	148.8	16.9	14.86
4.	Gujarat	0.55	32.43	3.87	1.89	158	23	16.18	75.74	14.6	28.0	24.7	271.8	23.41	22.07
5.	Karnataka	0.50	21.06	3.78	1.02	138	154	14.13	84.10	14.5	22.1	25.2	255.9	20.53	19.64
6.	Kerala	0.93	23.19	4.32	1.77	167	14	14.72	95.79	20.7	12.7	45.2	333.9	8.49	7.81
7.	Madhya Pradesh	0.12	23.58	8.96	5.92	206	165	10.98	54.93	8.2	18.6	20	171.1	44.57	50.42
8.	Maharashtra	0.59	29.80	2.31	1.60	169	38	16.90	76.94	9.0	11.4	29.1	292.5	27.15	22.32
9.	Orissa	0.09	30.87	5.08	2.85	98	112	12.01	65.94	17.0	24.1	19.6	219.5	21.57	19.40
10.	Punjab	0.00	36.12	1.10	0.76	102	88	18.61	106.28	76.5	94.0	36.6	338.1	13.57	23.98
11.	Rajasthan	0.49	74.40	7.72	3.13	142	206	13.78	71.84	14.5	24.0	23.2	224.25	36.85	33.34
12.	Tamil Nadu	0.12	37.25	2.20	1.23	111	137	13.56	86.10	46.2	43.6	26.1	276.7	11.17	10.79
13.	Uttar Pradesh	0.00	13.43	6.86	4.19	113	189	9.51	49.57	35.1	58.0	17.2	161.7	16.95	14.76
14.	West Bengal	0.00	9.38	1.73	1.63	148	165	11.05	64.22	21.5	22.1	21.6	219.8	11.35	10.49
	All-India	0.27	29.47	3.55	2.15	135	76	12.77	69.18	23.3	33.3	23	231.3	23.62	21.60

Source : Compiled from various statistical data published by CMIE.

Table 4.39

Comparison of Factors Relating to Vital Infrastructure for Industries

Sl. No.	States	Compound Annual growth rate of power generation between :		Average Electricity tariff for industry (paise/kwh)	% of villages electrified	Railway Route (km) 1992-93		Road length Per '000 sq. km area (km)		Bank : No. of offices per lakh of population	Credit - Deposit Ratio of Public Sector Banks	Persons per telephone set
		1970 & 81	1981 & 93			1992-93	1993	Length	Per '000 sq. km area			
1.	Andhra Pradesh	9.6	8.1	214	100	5055	18.38	264	500	6.8	81.6	137
2.	Assam	2.3	7.2	141	98	2467	31.45	383	820	5.2	47.5	342
3.	Bihar	5.2	2.2	215	70	5316	30.57	670	488	5.4	37.3	504
4.	Gujarat	8.4	7.8	208	100	5281	26.94	221	382	8.1	52.5	67
5.	Karnataka	3.5	5.9	193	100	3089	16.11	NA	659	9.3	76.2	94
6.	Kerala	9.4	1.4	99	100	1028	26.45	3106	3173	9.6	47.2	71
7.	Madhya Pradesh	8.0	7.1	184	92	5987	13.50	162	239	6.4	62	180
8.	Maharashtra	6.8	6.7	154	100	5455	17.73	316	673	7.0	68.5	122
9.	Orissa	5.9	4.3	72	70	2002	12.86	366	1254	6.5	64.8	301
10.	Punjab	10.6	3.7	156	100	2121	42.12	594	1010	10.5	42.5	71
11.	Rajasthan	8.4	4.0	125	83	5740	16.77	146	194	6.7	56.6	166
12.	Tamil Nadu	2.7	7.2	226	100	4023	30.93	714	1284	7.6	87.4	133
13.	Uttar Pradesh	5.9	4.8	179	75	8901	30.23	382	625	5.9	42.1	274
14.	West Bengal	3.2	6.3	188	75	3825	43.10	599	649	6.0	50.1	658
	All-India	7.1	8.7	--	84	62486	19.01	344	544	7.0	61.4	112

Source : Compiled from various statistical data published by CMIE.

Analysis

The efforts put in by the government to develop social infrastructure in Kerala is evident from the values of various factors indicated in Table 4.38. For instance, though the per capita expenditure on water supply and sanitation in Kerala (Rs.23.19) is slightly below the national average (Rs.29.47) in 1992-93, the infrastructure on health-care seems to be remarkable when compared to the figures for the other states and also all-India. The situation with regard to the number of persons per doctor in Kerala is found to be better than the national average, in 1991. In fact, this was a drastic improvement from the situation in 1971 when one doctor had to cater to the needs of about 4320 persons in Kerala as against 3550 persons at all-India level. Similarly, while one hospital in Kerala caters to the needs of 14000 persons, the corresponding figure at all-India level is 76000, in 1991. Both in 1975-76 and 1992-93 Kerala's per capita expenditure on health (Rs.14.72 and 95.79 respectively) was much above the all-India figures. In all these years, industrially developed states such as Gujarat, Maharashtra, Karnataka, and Tamil Nadu were behind Kerala both in terms of expenditure on health and also in the creation of health-care facilities. The only exception was Punjab which was almost consistently well ahead of all the other states in most of the factors. Kerala's expenditure on education was also much above the national average both in 1975-76 and 1992-93. In

1975-76, while Kerala stood first among all the 14 states compared, in 1992-93 Punjab marginally rose above Kerala. Yet another measure of social infrastructure indicated by the area served by a post office also show that Kerala was well ahead of all the other states.

An analysis in a similar line with regard to the vital infrastructural facilities for industries, however, revealed a skewed picture. For instance, while Kerala had achieved 100 per cent electrification of villages along with many other states, its growth rate in power generation had drastically fallen in the 1980s when compared to all the other states. The growth rate of 9.4 achieved by Kerala between 1970 and 1981 was above the national average of 7.1. Between 1981 and 1993 while almost all the other states more or less maintained the same growth rate or increased the growth rates, Kerala recorded a growth rate of only 1.4 against the national average of 8.7. This trend clearly indicates that the state government failed to increase the generation of power in tune with the increasing demand. It was more keen in achieving the goal of equitable distribution by reaching every nook and corner of the state. This approach would have even undermined the effect on the quality of power supplied. Kerala Government, could also offer the lowest power tariff for industry, due to the fact that power generation in Kerala was totally hydel which is relatively a cheaper method. But, the overall picture reveals the common story of not providing

adequate support facilities which is vital for the industry.

The railway route per 1000 sq.km. area in Kerala (26.45 km) is higher than the national average (19.01 km). But, the total rail route length in Kerala is only 1.65 per cent of the total railway line in the country or will be roughly 20 per cent of the entire rail route in a large state like Andhra Pradesh or 33 per cent of the railway lines in Karnataka. This is obviously justified by the smaller size of Kerala. Another revealing observation is that the road length per 1000 sq.km. in Kerala is almost six times the national average. This again is explained by the smaller land area in Kerala and is also an indication of its cramped nature. Kerala may be one among the few states in India where almost the entire length of the National Highway runs through highly inhabited regions. This not only creates impediments to the widening of highways but also limits their utility for commercial traffic. Therefore, the relevant question would be with regard to the infrastructural developmental efforts put in both by the Central and State Governments to develop alternative methods of transportation exploiting the lengthy coast-line, back-waters and rivers of Kerala with a view to facilitate commercial activities. Here, it should be noted that the erstwhile Princely states in this region had well connected waterways which were mostly used for commercial purposes. Later, may be falling in line with the general national trend in infrastructure building, these waterways

were thoroughly undermined. With the result, now only very little of these old waterways remain usable.

Kerala's facilities with regard to banking and telephone connections indicated by the related factors in the table also show that Kerala's position is much ahead of even highly industrialised states. All these point to a suspicious situation of a consumption oriented infrastructure build-up without much links to the productive sectors. For instance, the excellent social infrastructure in terms of education, banking, health, etc. may be primarily linked to the 'money order' economy of the state rather than supporting the productive sectors. The comparatively low Credit-Deposit-Ratio of public sector banks operating in Kerala is ample proof for this argument.

A Closer look on Bank Finance

The declining Credit-Deposit (C.D) Ratios⁵⁶ of the state of Kerala has been a matter of serious debate both on the floor of the Assembly and outside. It is widely believed that the reduction in the CD Ratio is due to the siphoning off of the savings of Kerala to other states. In other words, this argument also means that Kerala is being denied its legitimate financial resources. To get a clearer picture, the C.D. Ratios of a few selected states in the years 1969, 1980, 1992 and 1994 are compared in Table 4.40. Only Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu are more or less

consistently above the national average of C.D. Ratio which fluctuates around 60 per cent. Obviously enough, Kerala's C.D. Ratio had been gradually declining. While all the states with C.D. Ratios above 60 per cent are industrially advanced states, other industrially advanced states such as Gujarat, Punjab and Uttar Pradesh have also had low C.D. Ratios. The declining C.D. Ratio in the case of Kerala is often explained in terms of the unprecedented growth in deposits (20.8 per cent annual compound growth rate from 1988 to 1994) mostly on account of the increase of NRE deposits and simultaneous low growth rate in the advances (12.9 per cent). The corresponding annual compound growth rate of NRE deposits during the period from 1988 to 1994 was 30 per cent (see Table 4.41). The NRE deposit which constituted only 28.5 per cent in 1988 had reached 40.3 per cent in 1994. Both the primary and secondary sectors in Kerala were not buoyant enough to provide a high credit absorption capacity. The acute shortage of land and the very nature of small holdings did not provide mechanisation and modernisation of agriculture. A simple comparison of Kerala's achievement in mechanisation in agriculture is possible by looking into the growth of registered tractors in the state. While during the period from 1979-80 to 1984-85 the Annual Compound Growth Rate (ACGR) in the registration of tractors was - 0.79 per cent in Kerala, the corresponding all-India figure was 13.31 per cent. However, the ACGR from 1979-80 to 1990-91 for Kerala was 7.90 as against the national average of 12.67 per cent.

The corresponding figures for Andhra Pradesh, Gujarat, Haryana and Karnataka were 12.28, 11.03, 21.45 and 9.62 per cent respectively.⁵⁷ Therefore, the scope for large scale finance for the modernisation of agriculture by any other method should also be assumed to have been low in Kerala. As seen from the analyses done in the earlier chapters, the industrial sector also had only very limited capacity to absorb credit. Therefore, it could be concluded that the declining C.D. Ratio *per se* cannot be considered as an indication of the failure of the Banking system in supporting the industrialisation of the State.

Table 4.40

Comparison of CD Ratios

Sl. No.	States	June 1969	June 1980	September 1992	March 1994
1.	Andhra Pradesh	100.8	70.4	78.9	73.3
2.	Assam	39.4	39.4	49.1	41.8
3.	Bihar	30.8	41.4	39.0	34.7
4.	Gujarat	48.6	51.7	55.5	46.3
5.	Karnataka	76.1	78.7	80.6	72.7
6.	Kerala	65.8	68.3	49.5	41.4
7.	Madhya Pradesh	58.9	51.4	63.4	55.9
8.	Maharashtra	100.9	77.3	56.0	69.9
9.	Orissa	51.7	56.7	71.4	59.9
10.	Punjab	27.0	38.5	40.3	42.0
11.	Rajasthan	51.4	67.1	52.4	50.0
12.	Tamil Nadu	133.5	90.0	88.7	87.0
13.	Uttar Pradesh	45.7	43.0	42.5	36.8
14.	West Bengal	115.4	60.4	53.9	45.6

Sources : 1. As in Table 4.39

2. Banking statistics of the 'State Level Bankers Committee' in Kerala, for September, 1992 figures.

Table 4.41

Banking Statistics of Kerala

Rs. in Crores				
Year ending March	Total deposits	NRE deposit out of total deposits	Total advances	CD Ratio
1988	4811.32	1369.24 (28.5)	3116.05	64.77
1990	6620.08	2012.21 (30.4)	4118.16	62.20
1992	9670.93	3038.88 (31.4)	5002.96	51.73
1994	14941.06	6014.63 (40.3)	6441.54	43.71
Annual compound Growth Rate %	20.8	30	12.9	- -

Note : Figures in brackets are percentage to total

Source : State Level Bankers Committee, Trivandrum.

A similar analysis done with regard to the per-capita assistance sanctioned and disbursed by a few financial institutions other than commercial banks also revealed that Kerala's credit absorption from these institutions were also substantially low (see Table 4.42). The cumulative per-capita total assistance sanctioned (Rs.1114.2) and disbursed for Kerala

from 1988-89 to 1992-93 was only about half of the corresponding figures for Karnataka and Tamil Nadu. A small state such as Goa received about 8.5 times the per capita assistance enjoyed by Kerala. The actual reasoning out of this wide disparity is possible only by going into the type of projects to which these assistances have gone and also their success in terms of timely completion and overall performance. This is, however, not being attempted here as that by itself would be an exhaustive study. But, one glaring observation is that in spite of very high potential for tourism, Kerala's per capita sanctions (Rs.4.9) obtained from Tourism Finance Corporation of India Ltd. (TFCI) is only about half of what Karnataka (Rs.11.3) and Tamil Nadu (Rs.10.8) could mobilise. The per capita disbursement in Kerala was only 8 per cent of what was sanctioned. These clearly indicate the absence of enough credit absorption capacity in the state. A variety of aspects such as (a) the absence of adequate 'bankable' projects (b) limited entrepreneurship and, (c) ineffective government support and intervention for development could be pointed out as the reasons for this low credit absorption.

Table 4.42

Per-Capita Cumulative Assistance Sanctioned and Disbursed by a Few Financial Institutions other than Commercial banks to a Selected list of States during 1988-89 to 1992-93

(Rs.)

Sl. No.	State	IDBI ¹		IFCI		ICICI		SIDBI		TFCI		SFC		SIDCs		Total	
		S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D
1.	Andhra Pradesh	787.9	590.6	195.9	139.1	247.4	166.6	77.7	56.5	3.7	2.1	226.8	181.9	59.1	47.8	1578.5	1184.6
2.	Bihar	171.3	109.8	25.6	15.7	84.5	56.2	12.3	10.1	0.3	0.2	78.5	43.8	21.2	13.2	373.3	228.1
3.	Goa	4687.0	3578.3	686.2	517.3	1691.9	1185.6	605.4	530.5	155.7	61.0	—	—	1564.3	1188.6	9390.5	7041.3
4.	Gujarat	1722.5	1328.3	455.5	281.7	1091.5	688.6	260.6	174.1	5.4	1.8	416.9	271.1	207.1	162.2	4159.5	2907.8
5.	Haryana	1060.9	753.8	351.3	230.4	461.5	269	211.2	137	2.2	1.0	300.9	229.2	115.6	68.2	2503.6	1688.6
6.	Karnataka	821.8	609.4	154.9	110.9	408.4	239.2	147.4	116.4	11.3	4.2	375.9	328.2	120.6	91.3	2040.3	1499.6
7.	Kerala	525.4	399.6	64.0	47.3	98.0	69.8	122.3	105.9	4.9	0.4	214.3	151.9	85.3	66.0	1114.2	840.9
8.	Madhya Pradesh	500.0	355.3	151.6	100.4	215.3	129.3	48.3	35.8	0.8	0.3	77.3	65.1	55.7	47.1	1049.0	733.3
9.	Maharashtra	1256.4	841.5	300.1	203.6	1014.8	661.1	143.4	104.4	4.7	2.0	193.2	128.7	116.6	95.4	3029.2	2034.7
10.	Orissa	536.5	411.9	117.5	89.9	164.4	107.9	44.6	36.3	0.9	-	186.5	171.9	57.2	52.6	1112.6	870.5
11.	Punjab	904.4	634.1	424.5	318.6	243.5	172.5	137	112.3	1.8	1.6	276.9	227.2	234.6	162.3	2222.7	1628.6
12.	Rajasthan	641.4	444.9	188.3	133.2	256.7	158.8	95	56.4	8.8	2.8	213.5	171.3	64.1	47.0	1467.8	1014.4
13.	Tamil Nadu	1029.1	764.6	202.5	140.3	467.5	320.4	145.3	109.5	10.8	4.5	266.1	190.7	82.0	68.7	2203.3	1598.7
14.	Uttar Pradesh	398.0	283.1	118.2	94.9	127.5	78.4	43.3	30.2	2.3	1.6	100.4	86.6	78	52.4	867.7	627.2
15.	West Bengal	497.3	293.4	112.9	48	210.7	104.0	44.8	34.2	0.6	0.6	67.3	53.7	53.2	41.6	986.8	575.5

Note : 1. See the List of Abbreviations at the beginning of the report.

2. S - Sanctions ; D - Disbursements

Source : IDBI, Report on Development Banking, 1992-93

4.8 Incentives and Subsidies

It is not always financial assistance and concessions that influence the selection of the location of industries. Sometimes, certain non-pecuniary considerations also play an important role. This assumption was validated by the sample survey conducted among the small-scale units in Kerala (see Chapter 3). The major reason stated by entrepreneurs for locating their units at a particular place was that they belonged to that place. The domestic consideration of entrepreneurs in deciding the industrial location suggests that enterprise is not a freely mobile factor willing to move to any place for availing of marginal advantages. The fiscal concessions and financial assistance on soft and easy terms cannot possibly compensate for the lack of basic facilities like transport and marketing services. As such, concessions and assistance have been finding it difficult to attract industries to geographically alienated regions which do not provide the benefits of agglomeration. However, there is a growing competition between various states in offering incentives with a view to woo entrepreneurs, especially from outside the state. But, what is really important is to provide all the elements of the developmental cycle, viz., the stimulatory, support

and sustaining factors. Incentives and subsidies, that way, could be seen only as having stimulatory effects. This should be followed by enough support facilities, especially in terms of providing a minimum level of infrastructural facilities, and an environment favourable for 'cumulative causation'. This is where Kerala had failed though the governmental financial assistances offered were at par with those offered by other states. Another aspect is the fulfillment of the promises in terms of assistances. For instance, there is no point in offering concessions on power tariff when power itself is not available in sufficient quantity and quality.

In view of the above fact, it is suggested that efforts should be made at the first instance, to create a minimum level of infrastructure network conducive for establishing industries. Then only can incentives and concessions attract entrepreneurs to move towards those regions to establish industries. However, the sample survey also revealed that there are certain adverse effects of the incentives on the further growth and expansion of small-scale units. The tax concessions, for instance, which are linked to the turn-over of units in the SSI sector have prompted many units to grow horizontally (by setting up more similar units) with a view to avail these concessions.

4.9 Promotional Agencies

Over and above the departmental functionaries such as the Directorate of Industries and Commerce and its District

Industries Centres(DIC) , there are certain special organisations, professional agencies, lending institutions and commercial banks concerned with the promotion and development of the industrial sector in the State.

The Directorate of Industries and Commerce is expected to extend administrative, technical, extension and supervisory support for the sustained growth and development of small scale industries. Economic investigation of the potential for industrial development of the district, effective management of credit facilities, marketing assistance and quality control, registration of units, revival of sick small-scale industries, etc. are the functional responsibilities of the District Industries Centres. Though the small sector does not need an industrial licence and even the registration with the DICs is voluntary, the systems and procedures followed in the DICs create many bottlenecks for the implementation of projects. A survey conducted by National Council of Applied Economic Research (NCAER) and Friedrich-Naumann Stiftung (FNST) had revealed that more than 24 clearances and approvals have to be obtained by the small sector depending upon factors like, product-line and location.⁵⁸ Though DICs are supposed to help the small sector in various procedures, they have almost failed in their role as a co-ordinating agency between the different organisations. First of all, they are ill-equipped in terms of an information system and updated knowledge in line with the modern industrial scenario. Sec-

only, the most important factor is the quality of the manpower available with them. The protracted personnel selection through the Kerala Public Service Commission (KPSC) may not take care of the changing needs in a highly mercurial business environment. With the result, people with wrong background (in terms of the experience gained elsewhere) are selected through a protracted selection process of the (KPSC), most often purely based on some basic educational qualification prescribed. Such a selection process may not respond to the changing organisational needs as PSCs emphasis will be more on making the records of selection proper rather than selecting the right candidate at the right time.

Other agencies - an overview

Small Industries Development Corporation, set up in 1975, by amalgamating the former Kerala State Small Industries Corporation and the Kerala Employment Promotion Corporation, was intended as a nodal agency in the State for promoting small scale industries. The primary function of the Corporation was construction, maintenance, management and administration of industrial estates and development plots. Besides, the Corporation supply scarce and imported raw materials required by small-scale industrial units and also assist in the marketing of their products. The Kerala State Industrial Development Corporation (KSIDC), on the other hand, provides consultancy and financial support to medium and large scale industries.

Kerala Industrial and Technical Consultancy Organisation Ltd. (KITCO), established by the Industrial Development Bank of India in 1972 was the first state level Technical Consultancy Organisation (TCO) set up by the apex all-India financial institutions. It provides technical and management consultancy to entrepreneurs in the small, medium and large scale sectors. Its services include selection of projects, preparation of project reports, conduct of market surveys and socio-economic studies, and turnkey implementation of projects. Of late, KITCO has also been assigned a management contract to run the Kerala Institute for Entrepreneurship Development (KIED), a recently formed institute.

Small Industries Service Institute (SISI) in Trichur, is a sub centre of the Small Industries Development Organisation (SIDO). The institute and its five extension centres at Calicut, Shoranur, Alleppey, Attingal and Muvattupuzha, the four production centres at Attingal, Mudavur, Ettumanoor and Thiruvalla, the foot wear service centre at Trichur and the field testing station attached to the Common Facility Service Centre at Changanacherry meet the varied needs of existing and prospective small scale entrepreneurs in the State.

The Centre for Management Development (CMD) is engaged in conducting Entrepreneurship Development Programmes and also provides consultancy services on management and technical issues and prepare project reports, rehabilitation reports etc.

Apart from the above organisations, Science and Technology Entrepreneurship Development Project (STED) and the Entrepreneurship Development Cell of Regional Engineering College, Calicut, are two other organisations engaged in Entrepreneurship Development activities. Both these institutions were set up by the Central Government.

As is evident from the above details, one peculiar problem with the developmental activities in Kerala was the multiplicity of organisations set up with the same objectives and functions. This resulted in the apportioning of funds among different organisations thus diluting the quality of developmental efforts.

Kerala Financial Corporation, established in 1953, provides long term loans to new small and medium scale industries also for expansion and diversification of the existing industries. The lending policy of the Corporation itself has been diversified by extending funding assistance on a priority basis to units in backward areas and new type of industries such as hotel, hospitals, nursing homes, and tourism related projects. The funds required for the Corporation are mobilised through share capital assistance from State Government (5%), matching share contribution from Industrial Development Bank of India (IDBI) (5%), issue of bonds (25%), refinance from IDBI (55%) and own funds (10%). Besides, the Corporation avails borrowing facilities from Reserve Bank of India, scheduled banks and insurance companies. The corporation received

2165 applications for an aggregate loan amount of Rs.105.29 crores during 1993-94 as against 2337 applications for Rs.110.44 crores received during the previous year. The gross sanctions during 1993-94 amounted to Rs.84.10 crores for 1993 beneficiaries as against Rs.93.11 crores for 2150 beneficiaries in the previous year. The amount actually disbursed in 1993-94 was Rs.68.42 crores to 1696 units against Rs.65.10 crores disbursed to 1879 units in the previous year.⁵⁹

It was observed that the information support provided by the promotional agencies is more or less on a case to case basis, requiring working from the scratches or an updation, every time when an entrepreneur approaches them. More often than not, these organisations fail to build up a proper database based on the cases already handled by them. By the very nature of their functions and jurisdictions, they were also incapable of setting up a state level information network. Even a reliable database with proper storage and retrieval system was not found. While the large and medium sector may be in a position to gather the data required for business decisions, as far as small sector industries are concerned, a reliable institutional set up for *information and guidance* is, in fact, a vital support facility. This is one of the major lacunae in the counselling and guidance services available to the entrepreneurs in the state. Due to this, many entrepreneurs tend to invest in 'me too' type of product-lines leading to creation of capacities in the wrong sectors. In the absence of vital statistics it is also virtu-

ally impossible to make product and area specific plans for the growth of industries.

During the sample survey carried out among the small-scale units in the state of Kerala, it was found that the statistics available with some DICs regarding the number of units under different product-lines were not fully reliable. In such a situation, even a quick pre-investment analysis of demand-supply position of locally manufactured products would be inaccurate or impossible. Even prevention of unhealthy proliferation of certain industries would be difficult due to lack of reliable statistical information. It is, in fact, quite simple and cost-effective to acquire data as an ongoing process linked to many of the events such as provisional/permanent registration, disbursal of subsidies, etc. Such a database would be capable of answering a wide range of queries on sector-wise capacity created or likely to be created, saturated sectors, industrial mortality rate, etc. In the absence of any such effort, even the government officers who are to provide extension services and guidance to entrepreneurs would be groping in the dark due to the absence of a handy and reliable data bank or information system. The present state of things could be summarised as follows:⁶⁰

ORGANISATION**PRESENT STATE OF INFORMATION AND
GUIDANCE SERVICES**

District Industries
Centres

- Set up with the basic objective of providing counselling and guidance services (promotional role).
- Over a period of time, DICs assumed a regulatory role.
- Lack of proper database.
- Obsolete data/information, Therefore, counselling is almost impossible.
- Yet to computerise
- Systems and Procedures followed should have facilitated acquisition of vital statistical data. This has not taken place.
- Resource crunch/procedural delays in creating a modern information system. Bureaucratic delay in modernising.
- Untrained manpower and frequent changes of key personnel.
- DICs are not able to effectively perform co-ordinator's role between various organisations supporting industrial activities.

Technical Consultancy
Organisation (TCO)

Generates lot of data/information
But, fails to organise them for
future use mainly due to lack of
funds/infrastructure.

- Primarily gets wedded to the business on-hand (more so in a competitive environment).
- Computerised since 1985. But, computerisation hardly supports an industrial information system.

Kerala State Industrial Development Corporation Has already established computerised 'Technology Bank' with link to national and international databases. This facility is almost inactive.

- Primarily caters to the needs of large scale units; May not be of much assistance to the Small-Sector.

Financial Institutions Primarily interested in funding

- Take keen interest in *Stimulatory* activities, but provides inadequate emphasis on *Support* facilities such as counselling or sharing of experiences with entrepreneurs and creating database based on past experiences.
- TCOs were established by apex financial institutions mainly to eliminate the above lacuna in Devpt. banking. But, the organisational set up brought TCOs into a rat race.

SIDCO and SISI

- Still remains too primitive to cater to the present day information and consultancy needs of the entrepreneurs.

The existing institutional arrangements for the collection, processing and dissemination of techno-commercial information in the state may not meet the needs and demands of the entrepreneurs, especially the needs of those in the small-sector. The data generated as part of various *procedures* (of Government departments) and *transactions* (of Financial Institutions) and *studies* (of Consultancy Organisations) are not found to be satisfactorily collected and indexed through even conventional documentation methods. There is very little exchange of experience between organisations engaged in industrial developmental activities. Thus, a reliable data bank with a proper storage and retrieval system has not been created.

The situation demands a holistic approach demanding modification of the office systems and procedures followed in the Industries Department as well as Banks, so that the documents generated and therefore the recorded data not only meet statutory requirements but also the information needs of the state as a whole. A data base created at each District Industries Centre, for instance, would be able to answer many basic questions such as sector - wise capacity created or likely to be created, saturated sectors, sector - wise industrial mortality rate and so on at each district level. The proposed information system shall be differentiated from a

library system or a data bank. Each regional information system shall function more or less like a *Decision Support System* rather than a conventional data bank. The overall system (integrating not only the DICs but also certain key institutions engaged in industrial development) should be able to analyse the present and near future information needs in a highly specialised form. The information sent out, say, by way of 'Business Updates' or as other packages should also be able to stimulate the subconscious needs of a target group of users and should be eye-openers to potential entrepreneurs.

As a first step towards achieving the above goals, the functioning, the systems and procedures followed, forms and registers in use, etc. at one typical District Industries Centre should be studied with a view to convert the centre into an information based set up from the present regulatory role.

Last but not the least is the fact that data or information may not mean much to at least the first generation entrepreneurs. Therefore, the information system should be properly supported with counselling and consultancy services. This demands creation of an institutional arrangement integrating the various disparate agencies involved in industrial development. This could be carried out only with government initiative by roping in at least the major organisations related to industrial development activities.

4.10 Entrepreneurship Development Programmes (EDPs)

The conduct of Entrepreneurship Development Programmes (EDPs) in the state was initiated in the early seventies itself after the establishment of KITCO in 1972. EDPs were conducted on the belief that "Entrepreneurs are not necessarily born, but can be developed". A typical EDP comprises the following elements.

- (a) Psychological exercises, games, etc. to make the trainee look inward and identify individual strengths and weaknesses.
- (b) Creating an acceptance of one's weaknesses and emphasizing on inter-dependence.
- (c) Creating the need for achievement
- (d) Present opportunities and suggest projects, possibilities of assistances, etc.
- (e) Formulation of plans for individual projects identified by participants.

- (f) Guidance for market study
- (g) Environment scanning by each trainee for two weeks (Market survey).
- (h) Formulation of projects schemes.
- (i) Theoretical input on functional areas of management
- (j) Interaction with successful entrepreneurs, factory visits, etc.

EDPs are conducted every year as per the plans and programmes chalked out by the Guidance and Monitoring Committee comprising members from Directorate of Industries and Commerce, State Level Bankers Committee, Kerala Financial Corporation, IDBI, SIDBI, NABARD, Commercial Banks and conducting agencies. Though, decisions regarding the number of programmes and the selection of districts are done by this committee, the course structure followed is the one prescribed by the Entrepreneurship Development Institute (EDI) at Ahmedabad. Several modifications and experimentations have already been done on the EDI pattern to make it more suitable for this region. Thus, in 1993 sectoral EDPs (each EDP representing a specific industry sector) were introduced. Here, the problem was with the overwhelming response for certain sectors and

practically no response for a few others. Later on, the duration of some of the programmes was reduced to one month on the grounds that 6 weeks was too long a period for any such training.⁶¹

Table 4.43 below gives statistics with regard to a few EDPs conducted in the state during the financial years 1986-87, 1987-88, 1992-93 and 1993-94.

Table 4.43

Details of Entrepreneurship Development Programmes
Conducted During a Few Financial Years

District	No of entrepreneurs trained (a) Vs				No of units set up (b)			
	1986-87		1987-88		1992-93		1993-94	
	a	b	a	b	a	b	a	b
Trivandrum	53	21 (40)	51	12 (24)	51	4 (8)	43	1 (2)
Kollam	30	2 (7)	54	12 (22)	124	9 (7)	45	-
Pathanamthitta	28	1 (4)	53	13 (25)	31	-	25	-
Alleppey	57	11 (19)	59	11 (17)	44	3 (7)	51	6 (12)
Kottayam	53	4 (8)	79	12 (15)	91	8 (9)	28	-
Idukki	49	7 (14)	28	6 (21)	64	8 (13)	26	-
Ernakulam	54	12 (22)	95	20 (21)	100	6 (6)	74	-
Thrissur	77	15 (19)	28	9 (32)	98	1 (1)	54	-
Palakkad	45	4 (9)	48	14 (29)	52	8 (15)	18	-
Malappuram	21	3 (14)	21	4 (19)	98	-	55	-
Kozhikkode	45	9 (20)	44	7 (16)	50	3 (6)	21	-
Wayanad	25	2 (8)	-	-	26	1 (4)	25	-
Kannur	53	17 (32)	24	3 (12)	92	3 (3)	-	-
Kasargod	17	3 (18)	25	3 (12)	29	1 (3)	-	-
Total	607	111 (18)	609	126 (21)	950	55 (6)	465	7 (2)

Note : Figures in brackets denote percentage to total entrepreneurs trained (ie; success rate)

Sources : 1. State Planning Board, *Economic Review* (Various issues)
2. Directorate of Industries and Commerce (Official records).

Table 4.44

Success report of Nine selected EDPs conducted
in 1987-88

As on	No. of trainees	Units set up
March 1988	227	30 (13.0)
June 1988	227	31 (13.7)
June 1989	227	48 (21.1)
June 1990	227	73 (32.2)
June 1991	227	79 (34.8)
June 1992	227	80 (35.2)

Note : Figures in brackets denote success rates

Source : KITCO's official records

Table 4.45

Success report of Twelve selected EDPs conducted
in 1988-89

As on	No. of trainees	Units set up
June 1989	255	31 (12.2)
June 1990	255	48 (18.8)
June 1991	255	74 (29.1)
June 1992	255	85 (33.3)

Note : Figures in brackets denote success rates

Source : KITCO's official records

As seen from the Table 4.43 the success rate of EDPs have been declining drastically over the years. Here, it may be noted that the status of implementation reported here is as at the end of the respective financial years. But considering the fact that a minimum gestation period of one year after the conduct of the programmes is required to get accurate results with regard to project implementation, it was decided to selectively study the success of a few programmes. Further, a good number of the programmes would have been conducted towards the end of the financial year. Accordingly, 9 EDPs in the year 1987-88 and 12 EDPs in the 1988-89 conducted by a single agency (KITCO) were selected for detailed analysis. The details gathered with regard to the success rate in terms of the number of units set up in the subsequent years up to June 1992 are given in Tables 4.44 and 4.45. A graphical representation of the success of these programmes are depicted in Fig.4.2. It was found that over a period of about one year after the completion of the EDPs in 1987-88, the success rate had gradually increased from 13.0 per cent to 34.8 per cent (at the end of June 1991) indicating a gestation period of more than 3 years to achieve this success rate. Beyond June 1991, the success rate was virtually stagnating. Similarly, in the case of EDPs in 1988-89, the success rate increased from 12.2 per cent at the end of the financial year to 33.3 per cent at the end of June 1992. In both the cases the following general trends were observed :

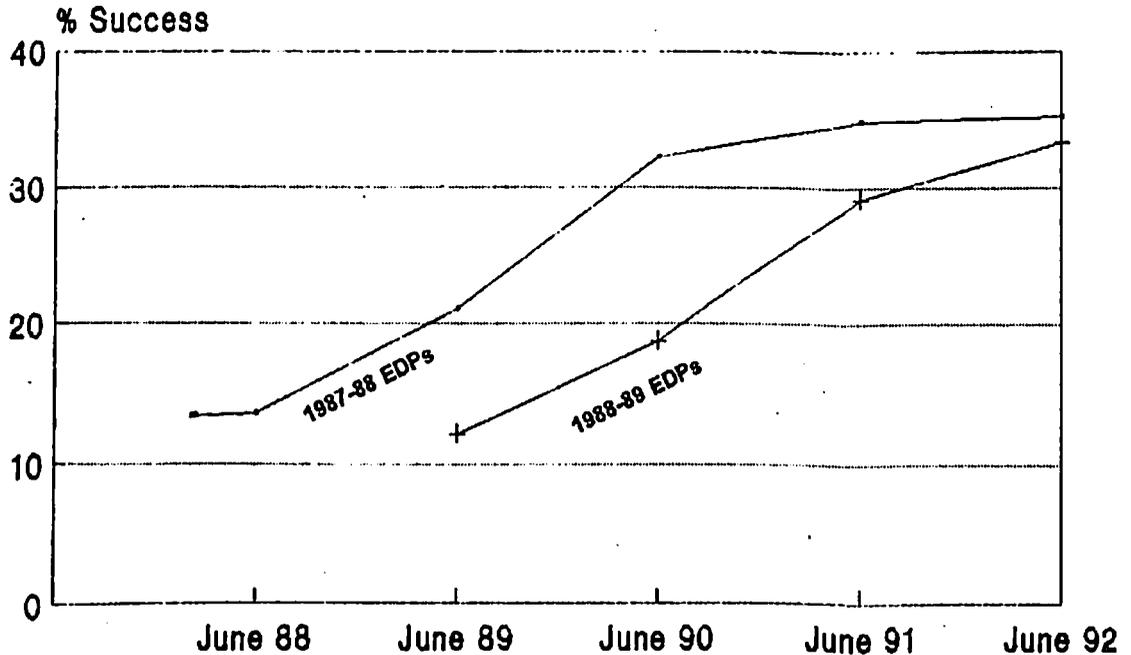
- a) Steep rise in the success rate was observed about one year after the completion of the programmes ie; in the second year after completion of the programmes in a financial year.

- b) The third year in both the cases showed a decline in the growth rate of success and the subsequent years there was virtual stagnation indicating very little possibility to achieve a success rate above 40 per cent.

Therefore, it could be concluded that the success rate of EDPs would be around 30 to 35 per cent. Further, there is also an indication of longer gestation periods for the implementation of projects, mostly small-scale. This, in a way, indicates the poor support facilities available even to EDP candidates for setting up industries. Discussions with KITCO officials revealed that lead time in the sanctioning of loans and power allocation were found to be the major elements contributing to this high gestation period. It was also reported that Bankers do a protracted screening process even to issue the loan application forms.

Fig. 4.2

Success Rate of EDPs



On an average, about 25 EDPs are conducted every year under the aegis of the Industries Department with co-sponsorship from Commercial and Development Banks. KITCO, CMD and STED are the three major conducting agencies. There are also a few other institutions such as the Institute for Management in Government (IMG), Regional Engineering College (Calicut), a few Management Associations and the State Productivity Council engaged in this activity on a very low scale. All

put together, about 800 potential entrepreneurs are trained through these programmes every year. Based on the success rate computed above, at the most, about 280 industrial units could be expected to come up every year. Assuming an average family size⁶² of 5, the message with regard to the necessity for entrepreneurship might directly reach and influence only about 4000 persons in an year, a minuscule 0.1% of the total population. Going by the success rate, the influence of EDPs in the society in terms of inculcating entrepreneurial value systems would be even less. Here, two things are very important: (a) the Kerala society as such have not shown significant entrepreneurial attitudes (b) the absence of role models in significant numbers for motivating the younger generation to take up entrepreneurial career. The situation, therefore, demands widening the reach of training programmes aimed at developing entrepreneurship. This can be achieved only through a multi-pronged approach as given below.

- (a) Incorporate entrepreneurial messages into the school curricula at the primary level itself.
- (b) Revamp the entire educational system in a need based manner, whereby the proliferation of generalised education is gradually reduced. This would direct the younger generation to the more productive sectors of the economy.

(c) Re-orienting technical and management education to nurture and create more entrepreneurs rather than churning out prospective white-collar employees.

Once the above modifications would address to the society as a whole, EDPs shall be fine tuned to operate with focus, may be sector-wise or target-group wise and should also be the final stage of creating successful entrepreneurs from a group of *highly potential entrepreneurs*.

4.11 Survey among Potential entrepreneurs (EDP Candidates)

A survey was conducted among a few potential entrepreneurs or in other words those who were at the threshold of an entrepreneurial career. This was thought to be essential for making a more detailed assessment of the motivational factors, the attitudes and value systems in Kerala society which would play a crucial role in the generation of entrepreneurs. This study was also necessary from the point of view that those who have already taken the plunge into entrepreneurship might talk more in favour of entrepreneurship even though a particular situation would have forced them to take up an entrepreneurial career.

Sampling Procedure

The *universe* for the aforementioned survey was more or less *infinite* as the number of potential entrepreneurs was practically unknown. Therefore, the first task was to decide on

certain criteria to assign the qualification 'potential entrepreneur' to a person. On the basis of past experience and also based on the discussions with the experts in the field of industrial development, two options were identified. They were:

- (a) Those who have taken provisional SSI registration at the District Industries Centres in the state.
- (b) Those who are currently attending Entrepreneurship Development Programmes (EDP) being conducted under the aegis of the Industries Department.

The former option would mean almost a separate and detailed survey which will be an unwieldy proposition for the present study. Moreover, reaching the potential entrepreneurs would be more difficult than in the case of the latter option. At the same time, the latter option would also provide an equally satisfactory representative sample, if not better than that obtained by the former method. EDP trainees were selected into these programmes through a formal selection process to judge their overall interest to set up industrial units. Therefore, it was decided to conduct a survey among those who were attending EDPs planned during the financial year 1994-95. As the decision to do this survey was made in August 1994, since then, only participants of six programmes which were being conducted at different locations in the state could be covered by the survey. Thus, this survey was more or

less a *purposive sampling*, the total sample size being 124.

Objectives of the Survey

The survey was conducted with the following objectives:

1. To identify specific characteristics, if any, on the educational and family background of the potential entrepreneurs.
2. To identify the general trend among the youth in Kerala in pursuing with their career ambitions and plans from their school days.
3. To identify the attitudes of Keralite youth towards entrepreneurial career.

Data Collection

With the above objectives in mind a questionnaire (see Appendix 3) was prepared for data collection. The questionnaire was initially tested on a full batch of EDP candidates at Trivandrum and suitable modifications were made. The questionnaires were in fact, distributed to the candidates and instructions and examples were given to enable them to answer the questions properly. As and when needed, clarifications were provided. The candidates were given the option not to reveal their names as it was found more appropriate to get unbiased expressions.

The findings of the survey are given below :

Educational background

Most of the potential entrepreneurs were sufficiently educated. About 64% were graduates, technical diploma holders or above. It may be argued that the high incidence of highly qualified persons is due to the fact that majority of respondents were undergoing a developmental programme to which they have been systematically selected. But, this selection process deliberately tries to avoid emphasising on educational background, but assigns importance to entrepreneurial traits. Therefore, it may well be concluded that the high incidence of highly qualified potential entrepreneurs only indicates the general feature of the society in terms of high levels of education. Table 4.46 gives the details.

Table 4.46

Educational Background

Sl. No.	Qualification	Number	Percentage to total
1.	S.S.L.C	19	15.32
2.	Tech. certificate holders	5	4.03
3.	Pre-degree	21	16.93
4.	Graduation	40	32.26
5.	Post-Graduation	22	17.75
6.	Tech. (Dip.)	9	7.26
7.	Tech. (Grad.)	8	6.45
	Total	124	100.00

Family background

The data gathered with regard to the family background is

given in Table 4.47. Predominantly, members in the family were either engaged in agriculture (23.9 per cent) or Government employment (19 per cent). Only 4.15 per cent of the family members were having industrial background. This again conforms to the general belief that Kerala society do not have sufficient 'role models' to demonstrate an industrial culture. Other indications are the agrarian nature of the society and the predominance of government employment. What has been reported under 'Others' is mostly 'house wife' or other 'petty employments'.

Table 4.47

Family Background

Relation	Occupation						Total
	Agricul- turst (nos)	Indust- rialist (nos)	Trading (nos)	Govt. emp. (nos)	Pvt. employee (nos)	Others (nos)	
Father	56	4	12	34	10	8	124
Mother	27	-	-	6	2	89	124
Brother	6	11	15	25	21	8	86
Sister	9	2	2	13	21	29	76
Total	98	17	29	78	54	134	410
* Per- centage	23.9	4.15	7.00	19.00	13.17	32.78	100

* Percentage to the total of all the family members put together

Career ambition

One of the major findings of the survey was that for all of them 'industry' was practically an unheard word while they

were at schools. Data with regard to the changes in the career ambition of the respondents from the school years till about five years after completion of education was gathered and analysed. The details are given in Table 4.48. A graphical representation of the trend with regard to career ambition as shown from Figures - 4.3 to 4.5 show an interesting phenomenon of a gradual reversal of trend with age in regard to the three major avenues for employment viz; 'to get a salaried employment', 'to start a business' and 'to start an industry'. At the same time, the ambition to go to Gulf has also picked up during initial years after the college days but found to have subsided later on, probably due to the lack of opportunities.

Table 4.48

Career Ambition

	To get a Salaried employment (nos) *	To start a business (nos)	To join family business (nos)	To go to Gulf Countries (nos)	To start an Industry (nos)	Others (nos)
School	88 (71)	25 (20)	8 (6.5)	3 (2.5)	-	-
College	55 (44.4)	36 (29)	4 (3.2)	8 (6.5)	6 (4.8)	15 (12.1)
2 years after completion of education	32 (25.9)	34 (27.4)	4 (3.2)	15 (12.1)	29 (23.4)	10 (8)
5 years after completion of education	6 (4.8)	27 (21.8)	2 (1.6)	4 (3.2)	62 (50)	23 (18.6)

Notes : 1. * No. of persons

2. Figures in brackets are percentage to total.

Fig. 4.3

Change in Career ambition (Salaried Job)

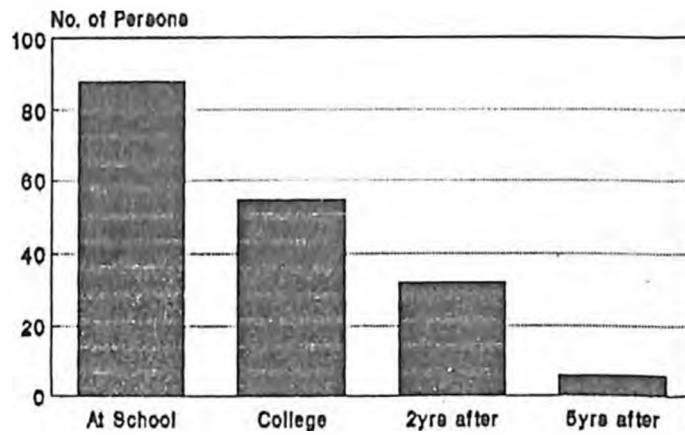


Fig. 4.4

Change in Career ambition(Start Business)

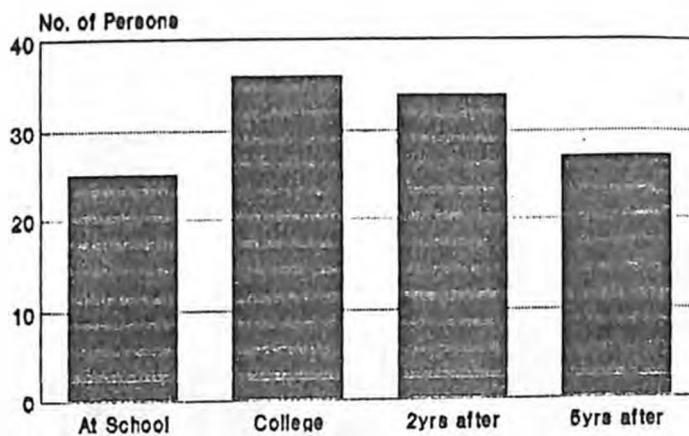
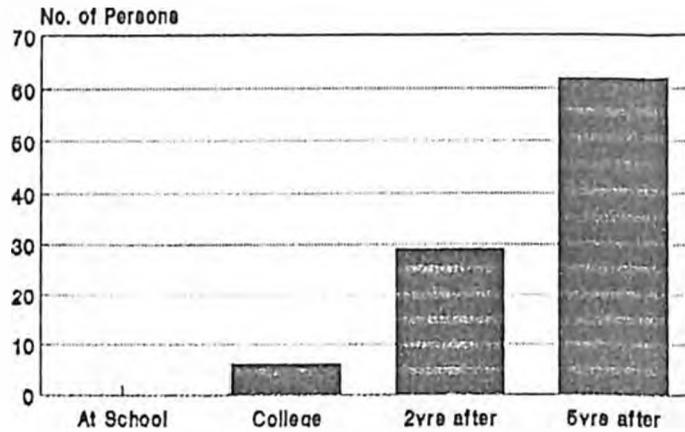


Fig. 4.5

Change in Career ambition(Start Industry)



An analysis of the trend from a different angle is shown graphically from Figures 4.6 to 4.9. These figures glaringly show that at the school level and practically at the college level also, 'industry' seems to be an unheard word. This,

Fig. 4.6

Career Ambition at School

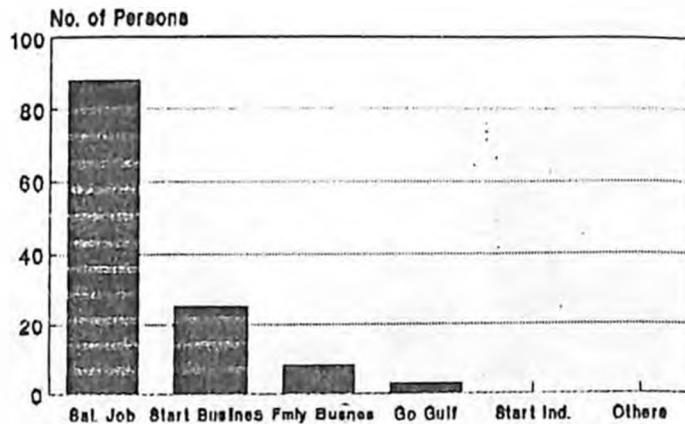


Fig. 4.7

Career Ambition at College

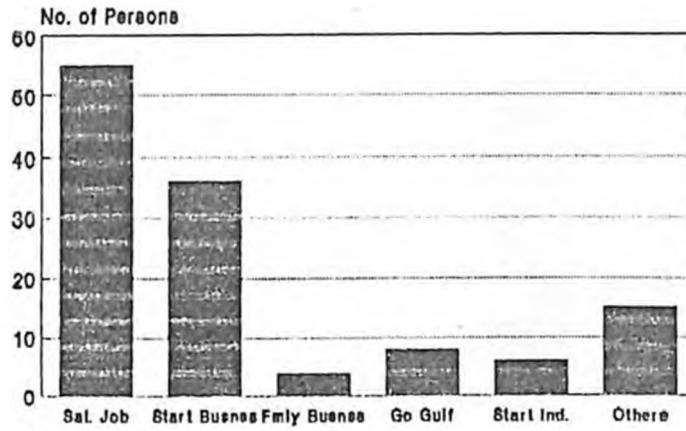


Fig. 4.8

Career Ambition 2 Yrs After Education

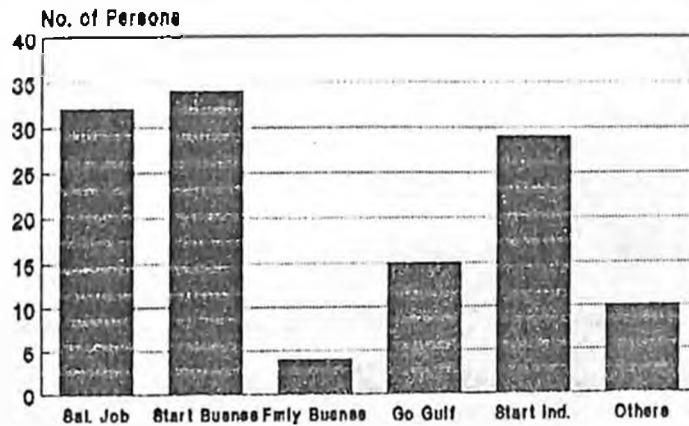
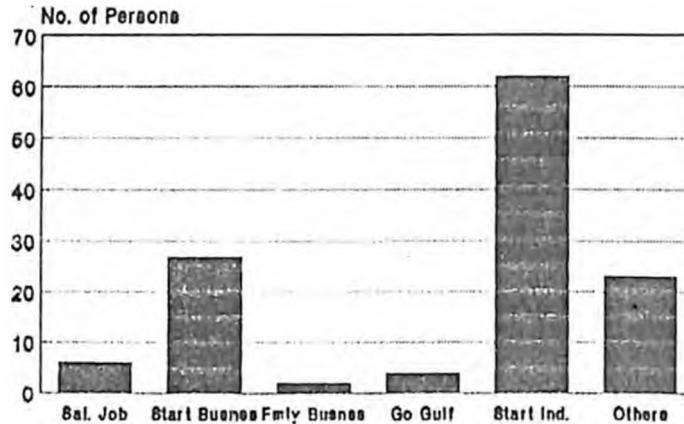


Fig. 4.9

Career Ambition 5 Yrs After Education



essentially, points to the ineffectiveness of the educational system in driving entrepreneurial messages into the minds of the youngsters. A further scrutiny revealed that with regard to the ambitions to take up employment, about 49.18% of the respondents (Table 4.49) have indicated strong inclinations towards this even after having decided to set up their own units. Of this, 4.83% opined that the Bankers in Kerala are not helpful and therefore would prefer to work abroad and earn money for investing in own ventures without resorting to Bank finance. The remaining 44.35% consider taking up the job important because it gives permanent income and social status. They also felt that there will be enough pressure from parents to take up the job as industry is risky and they themselves are not courageous enough to take risk if they

have another option. Only 50.82% of the respondents have said in affirmative terms that they prefer industry. A different set of questions from the same angle revealed that, even at the stage of attending an EDP, about 24.2% have very strong inclinations for being an employee rather than an employer (Table 4.50). Here again, the priority was for Government jobs. Based on these findings it may be concluded that the Kerala society is yet to show sufficient entrepreneurial attitudes and culture. It could also be concluded that even the EDPs are not effective in attaining attitudinal changes in the society and that EDP training will be effective only as a 'fine tuning' mechanism in a society where gradual and systematic nurturing of entrepreneurial qualities have already taken place.

Table 4.49

Decisions if suddenly luck favours in getting a job

Decision	Number	Percentage to Total	Reason for the decision
(1)	(2)	(3)	(4)
Decide to take up the job and run the unit parallelly	53	42.74	Permanent income; Financial problems; preference to white collar job (social status); pressure from parents to take up the job; industry is risky (not brave enough for a risky venture)

(1)	(2)	(3)	(4)
Sell the unit and would take up job	2	1.61	- - -
Hand over the unit temporarily to a close friend/relative and take up job	6	4.83	Make money first and then invest without going for bank loan. (Unhelpful attitude of Bankers)
Will not take up the job. But, will continue with the industry	63	50.82	Industry yields more income, more satisfaction and more freedom.
Total	124	100.00	

Table 4.50

Opinion on career choice

Activity	Number	Percentage to Total
A Govt. job	20	16.13
A job in a large pvt. company	8	6.45
Setting up an industry	90	72.6
Trading	4	3.22
Going to Gulf	2	1.60
Others	--	--
Total	124	100

What were they doing earlier?

The number of years spent in different ways after their formal education and before deciding to be an entrepreneur was also recorded and analysed. The findings are given below.

- On an average more than 5 years of an individual was found to have been wasted in job hunting and about same number of years were spent on one job or the other (mostly shifting from one petty job to another) before deciding to set up an industry. Many of those who have work experience have been working in other states or in the Gulf. About 35.5% of the unproductive time of these potential entrepreneurs have been wasted in trying for a government job particularly through the Public Service Commission. The detailed figures are indicated in Table 4.51 and 4.52.

Table 4.51

Distribution of Years Spent after Formal Education

Activity - wise distribution								MAN YEARS SPENT IN		
a	b	c	d	e	f	g	h	Employment (e to h)	Trying to set up Industry	Others (a to d)
(Man years)										
208	109	128	145	141	130	57	91	419	76	590
Average years spent by an individual ----->								5.12	1.44	5.20

- Notes: a - Tried for a Government job
 b - Tried for a job through employment exchange
 c - Tried for a Gulf job
 d - Tried for Private job
 e - Was engaged in Agricultural activities
 f - Worked in Gulf
 g - Worked in a Government Organisation
 h - Worked in a Private Organisation

Table 4.52

Productive and Unproductive years after formal education

	Unproductive years					Productive years				
	a	b	c	d	Total	e	f	g	h	Total
Total Man yrs. →	208	109	128	145	590	141	130	57	91	419
% to → Total	35.5	18.47	21.69	24.59	100	33.65	31.02	13.6	21.73	100

Note : As in Table 4.51

The sample group being 'potential entrepreneurs', selected through a systematic process, represent that segment of the young population who were at least somewhat close to the thoughts of standing on their own feet. Even such a group has showed that entrepreneurship is a second priority to them.

On the basis of the above analysis and the other details given elsewhere in this report, it could be concluded that, in Kerala, there is an absence of strong entrepreneurial culture in the society. This may be due to the absence of 'role models' in the society which is one of the major factors contributing towards further entrepreneurial ventures. All said and done about industry, the society at large even now prefer salaried employment, especially government jobs. Therefore, for a good number of the population the answer to making extra money lies in getting employed in the Gulf. Education does not seem to have played any role in nurturing entrepreneurial qualities in the young minds. Added to this is the fact that the most productive years of an educated youngster (here, little more than 5 years) was found to have been wasted in job hunting. It was also seen that the EDPs which were being conducted during the past three decades have not percolated down to all levels of the society. It was found to be reaching mostly those who failed to find a salaried employment in Kerala (but would prefer to stay in Kerala). The whole situation points to the necessity of

aiming at an attitudinal change in the society at large. This could be achieved only through inculcating entrepreneurial qualities and values at the school level itself. Educational system therefore, should be revamped to cater to the societal needs with regard to economic prosperity. The present EDPs could continue as a fine tuning package aimed at highly potential entrepreneurs.

4.12 Conclusions

The rulers of the princely states of Travancore and Cochin (which are part of the present state of Kerala) had contributed much to the development of education and health care. Added to this was the contributions made by Christian missionaries towards the spread of education to all sections of the population. After Indian independence, the popular governments in Kerala had virtually carried forward this legacy.

The early industrial development in Kerala during the colonial period was only a forward integration of the plantations owned by the British. These agro-processing units were largely export oriented ones and were incidental to the commercial expansion of agriculture. The extent of value addition and the forward linkages with the regional economy were also very low when compared to many of the industrial units which were set up elsewhere in India. Unlike in other regions large scale industrialisation leading to agglomeration of people and capital did not take place in Kerala.

Instead of progressive concentration of productive forces, production was decentralised and was moving down from higher forms of organisation to lower forms. The plight of two traditional industrial sectors viz; coir and cashew is ample proof for this phenomenon.

Even before independence, the fragile nature of the industrial activities were realised. This resulted in a number of policy measures aimed at faster industrial development of the region. Thus several large scale industries in diversified fields of production were started during the period from 1936 to 1947. Many of these were pioneering attempts made at the initiative of C.P.Ramaswamy, the then 'Divan' of Travancore. But this intensive industrialisation effort was a short lived one. The democratically elected governments which came into power after independence were found to have emphasised on social development almost undermining the factors that would keep the productive sectors healthy. The government also had not adopted an integrated approach covering farming and commodity production in sectors such as cashew and coir. The large number of SLPEs which came into existence also failed to create a strong modern manufacturing environment. The over-emphasised trade union activities was like adding fuel to the fire as far the impediments to industrial growth was concerned. Other factors which impeded the industrial development of this region were political instability, inadequate central investment and geographical remoteness within the

country.

The foregoing findings reveal that the earlier developmental approach right from the colonial period till recently have not contributed much to the creation of a strong industrial base with sufficient modern manufacturing units to facilitate spawning of small enterprises. It was also found that co-existence of a commendable social infrastructure, and poor vital infrastructure for economic activities point to the possibility of a consumption oriented infrastructure build-up without much links to the productive sectors. The survey conducted among potential entrepreneurs who were participating in Entrepreneurship Development Programmes (EDP) also revealed that even such developmental efforts were not effective in attaining attitudinal changes in the society in favour of industrialisation. Based on the survey it could also be inferred that, in Kerala there is an absence of a strong entrepreneurial culture in the society. This supports the argument about social impediments to the industrialisation of Kerala. The weak medium and large sector with a large number of ailing SLPEs and relatively low central investment also resulted in the absence of sufficient incubator organisations to spawn smaller enterprises. Thus, the overall developmental process is found to have failed in creating an agglomeration of inter-dependent activities conducive for rapid industrialisation.

Now, in an era of open economy, primarily led by the market

forces it is also quite unlikely that the Multi National Corporations (MNCs) coming to India would by themselves find their way to Kerala. Even the Indian companies would prefer to enjoy the benefit of agglomeration (benefits in terms of not only the availability of basic infrastructural facilities, but also the availability of local vendors, service and similar facilities that could be expected in an already industrially developed region). In fact, the major metropolitan cities attracted investors into those cities and the nearby areas primarily due to this advantage of inter-industry linkages. To sum up, it could be said that the lack of an environment providing the benefit of agglomeration of inter-dependent economic activities demands alternative policy strategies and deliberate government intervention to keep Kerala abreast of the times. From this point of view it is even imperative to revive SLPEs in all possible ways, simultaneously attracting large scale central investments in certain key areas, at least to compensate for the earlier lapses and to provide a helping hand to a state which is precariously positioned at the crossroads of economic progress. But, as a pre-requisite to any new developmental approach, it may be required to understand the specific regional characteristics of the state so that appropriate strategies could be evolved.

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59. State Planning Board, *Economic Review*, Government of Kerala, Trivandrum, 1994.

60. Details collected through an assessment of the functioning of these agencies, by paying actual visits to these organisations.
61. These information were gathered through personal interviews of the senior officials of the Directorate of Industries and Commerce and KITCO.
62. See CMIE, *Basic Statistics Relating to States of India*, September, 1994, p. T 1.15, for average family size.

Chapter 5

ANALYSIS OF REGIONAL CHARACTERISTICS

5.1 Introduction

India as a whole had experienced marked acceleration in economic growth during the eighties and the nineties. The year 1994-95 witnessed a fast growth of the Indian economy in a period of about four years. 1991-92 was an year of low growth of 0.9 per cent in the Gross Domestic Product. The subsequent two years recorded a growth of 4.3 per cent in each of the years followed by an acceleration of growth to 5.3 per cent led by a strong, broad-based industrial growth of around 8 per cent.¹ But, the spatial dimension of such acceleration in India's growth rate is important as many studies have revealed that there is much variation in the level of development (here, industrial development) across the various regions in the country. According to a study conducted in 1994 by the Federation of Indian Chamber of Commerce and Industry (FICCI), regional disparity in India has gone up during the post-reform period. The survey which used three variables - industrial entrepreneurial memoranda (IEM) filed, per capita investment, and proposed investment - in each state between August 1991 and October 1994, had shown a skewed trend pointing out that there is distortion in the

flow of investment². It revealed that increased investment flows to industrially advanced states has resulted in rich states becoming richer and poor states becoming poorer. The survey also revealed that 10 states have accounted for 88 per cent of the total proposed investment of Rs.3,25,500 crores. These states, according to ranking are Maharashtra, Gujarat, Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Tamil Nadu, Rajasthan, Karnataka, Haryana and Punjab. Another analysis by FICCI pointed out that Maharashtra and Gujarat have received 37 per cent of the total investment proposed. Maharashtra accounted for a total of 3,248 IEMs filed with an investment of Rs.64,800 crores. This is more than 20 per cent of the total number of IEMs accounting for about 20 per cent of the total investment committed. Gujarat is next to Maharashtra with 2,278 IEMs filed resulting in a total investment of Rs.56,200 crores. In percentage terms, Gujarat accounted for over 14.15 per cent of the total IEMs filed and 17.26 per cent of the total investment committed. The FICCI survey says that the total IEMs filed in Uttar Pradesh was 1,706 with an investment of Rs.36,700 crores, Tamil Nadu with 1,225 IEMs filed with a total investment of Rs.17,700 crores and Haryana having 1,041 IEMs filed with an investment of Rs.12,100 crores. The other State which has shown steady progress was Madhya Pradesh - 1,004 IEMs with an investment commitment of Rs.33,500 crores. The survey revealed that out of an employment potential of 31 lakhs due to these investments, the 10 forward states will generate employment to the

tune of 27 lakhs leaving only 4 lakhs employment to be generated in other states and union territories. During the reform period, the per capita investment, according to IEMs filed was Rs.3,659 on all India basis. It was about Rs.5,700 in Punjab and Rs.13,000 in Gujarat. The per capita investment varied from Rs.171 to Rs.3,500 in the east and north-eastern States. The survey pointed out that the disparity exists as the prospective investors preferred states having better infrastructure facilities and so the advanced states attract more investment. Here, it may be noted that it is the benefit of agglomeration which beckon investors into already industrially developed regions. Thus, it could very well be expected that in the post-liberalised period, much more widening of regional disparities would take place. Kerala, being an industrially backward state in the country, it is quite likely that this state would also be left behind unless deliberate intervention by the government takes place in line with the strengths and weaknesses of this region. More often than not, the general tendency is to adopt national level models of development or those developmental approach which were successful elsewhere with out taking into account the specific regional characteristics. For instance, as stated earlier, it will be unwise to assume that all regions of the country would be benefited by the economic liberalisation. Therefore, a clear understanding of the regional characteristics become imperative to take a developmental approach which is specifically suited to the region under consideration. A

number of studies have put forward various hypotheses related to both the structural and regional problems for the industrial backwardness of Kerala. While many of these studies empirically prove their hypotheses, very little was done to point out the specific regional problems and their remedies.

5.2 The problem of regional imbalance

Inter state growth differential can be better understood in terms of (a) existing locational pattern of 'old' industry (b) changing locational pattern of new firms in old industries and (c) emerging locational pattern of new industries³. Here 'old' industries are those having significant weightage in the state initially itself and 'new' industries are those which did not have weightage initially but whose weights increased over time. Out of the above, (b) is clearly a function of certain specific features of the state or the region under consideration and (a) is a function of the initial inter-regional differences. The question with regard to (c), therefore, has to be purely dependent on certain specific conditions of the state such as entrepreneurship, labour relations, etc. or availability of raw-materials, all these being region specific factors.

Inter-regional comparisons done earlier showed that in the pre-independence period and in the fifties, Kerala was industrially ahead of all the southern states except Tamil Nadu. In the 1960's, its level of industrialisation was comparable

to all-India, but below that of Karnataka and Tamil Nadu and above that of Andhra Pradesh. Then on, Kerala started lagging behind all its neighbouring states and all-India.

A disturbing development in the performance of the Kerala economy is the low growth and near stagnation situation of the primary sector during the entire period from 1960 to late 1980s. The secondary sector also experienced a virtual stagnation during the eighties (Table 5.1). Simultaneously,

Table 5.1

Annual Average Growth Rate of Net State Domestic Product

Year	Sector wise Growth Rate (per cent)			
	Primary	Secondary	Tertiary	Total
(1)	(2)	(3)	(4)	(5)
1. At 1960-61 Prices				
1960-61 to 1965-66	(+) 0.4	(+) 5.8	(+) 4.4	(+) 2.5
1965-66 to 1970-71	(-) 5.1	(+) 4.3	(+) 5.6	(+) 5.1
2. At 1970-71 Prices				
1970-71 to 1975-76	(+) 1.6	(+) 4.0	(+) 3.3	(+) 2.6
1975-76 to 1980-81	(-) 1.2	(+) 5.6	(+) 4.1	(+) 2.0
3. At 1980-81 Prices				
1980-81 to 1985-86	(+) 0.2	(+) 0.6	(+) 2.6	(+) 1.2
1985-86 to 1987-88	(-) 1.4	(+) 2.8	(+) 3.3	(-) 0.1

Sources : 1. Department of Economics and Statistics, *Statistics for Planning*, Various issues.
2. State Planning Board, *Economic Review*, Various issues.

a major structural change also occurred in the economy with a sharp decline in the share of the primary sector and a substantial increase in the tertiary sector (Table 5.2). The secondary sector's share had ups and downs. This is not in conformity with the general trend of economic development. For a comparative picture, the per capita net State Domestic Product (at constant prices) of different states are given in Table 5.3. The table reveals Kerala's poor economic performance when compared with other states.

Table 5.2

Sector wise Distribution of Net State Domestic Product

Year	Sectorwise Growth Rate (per cent)			
	Primary	Secondary	Tertiary	Total
1. At 1960-61 Prices				
1960-61	56.0	15.2	28.8	100.0
1970-71	50.5	17.1	32.4	100.0
2. At 1970-71 Prices				
1970-71	49.4	16.3	34.2	100.0
1980-81	40.3	20.6	39.2	100.0
3. At 1980-81 Prices				
1980-81	39.2	24.2	36.5	100.0
1987-88	36.0	22.3	41.7	100.0
1990-91	35.9	24.6	40.04	100.0

Sources : 1. Department Economics and Statistics, *Statistics for Planning*, Various issues.
 2. State Planning Board, *Economic Review*, Various issues.

Table 5.3

Per Capita Net State Domestic Product at constant prices
(base year 1980-81)

(Rs.)

Sl.No.	State	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88 Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Andhra Pradesh	1384	1562	1549	1583	1506	1553	1452	1495
2.	Arunachal Pradesh	1525	1706	2116	2218	2344	2467	2518
3.	Assam	1200	1307	1367	1375	1457	1483	1474	1516
4.	Goa	3169	2757	3216	3088	3522	3338	3473	3545
5.	Gujarat	1950	2106	2019	2248	2206	1976	2124	1948
6.	Haryana	2353	2365	2449	2440	2463	2753	2690	2572
7.	Himachal Pradesh	1662	1768	1696	1740	1617	1749	1869	1822
8.	Kerala	1444	1403	1407	1317	1378	1391	1384	1386
9.	Manipur	1564	1599	1560	1651	1660	1686	1655	1705
10.	Maharashtra	2436	2446	2507	2654	2575	2686	2638	2946
11.	Meghalaya	1230	1236	1243	1247	1285	1310	1326	1338
12.	Pondicherry	3159	3084	3182	3206	3294	3343	3308	3337
13.	Punjab	2769	2932	2994	2990	3138	3295	3325	3397
14.	Tamil Nadu	1498	1640	1527	1582	1758	1855	1875	1943
15.	Uttar Pradesh	1332	1326	1401	1425	1414	1438	1483	1486

Q - Quick Estimate

Source : Government of Kerala, *Facts and Figures*, 1990

An analysis of Kerala's growth also revealed a lack of connection with the pattern for all-India. This was not the case of the other three neighbouring states viz; Tamil Nadu, Andhra Pradesh and Karnataka⁴.

The above picture of Kerala indicating a deviation from the national trend point to the question of those factors that have acted as the determinants to the performance and growth of industries in Kerala. These factors could be different

from those of all-India. For instance, geographical remoteness within the country and socio-political environment in Kerala could be two peculiar factors. In line with these arguments it could also be said that the original industrial base (which was primitive and sharply focused on one or two major traditional agro-based sectors) could also be a specific regional characteristic when viewed from a post-independent national perspective.

5.3 The Initial Condition in Kerala

The most noticeable effect of development which the underdeveloped regions can see in the wealthy regions is the mass of manufacturing industry from which the wealth of the developed world appears to emanate. Consequently, it is not surprising that the introduction of manufacturing industry would be regarded uncritically as a panacea by the underdeveloped regions. This often leads to the framing of development programmes which are inappropriate for certain regions. However, economic development in the modern context is considered synonymous with industrial development, particularly the development of modern manufacturing sector. Several factors contribute to the industrial growth of a region. The resource endowments of the region, the local skill availability and the demand for various products would definitely determine the structure and pattern of industrial development in a region. But, given the fact that this phenomenon would not merely be a natural one led by only the

market forces, but would also be dependent on the government interventions made with a view to accelerate the process of industrialisation, other factors such as government priorities, socio-political environment, the initial industrial base, etc. would also play significant roles. In fact, the initial industrial base or the initial socio-economic condition itself would play a crucial role in determining the pace and direction of further industrial development of a region. An industrial base, with a good spread and diversified pattern of industries having strong forward and backward linkages, provides a favourable condition for rapid industrial development in the subsequent years. From this point of view, it would be appropriate to recapitulate what has been explained in the previous chapter about the initial condition in Kerala with regard to industrial development.

Many of the earlier studies done on the industrial backwardness of Kerala have focused much on the structural features of the industries, especially the small size. While it is true that the present structural features are not favourable for further industrial development, the underlying causes for these structural features might be the result of the initial socio-economic condition which again might be dependent on certain specific regional characteristics. These regional characteristics would include not only those related to the resource endowment of the region but also various other factors such as the historical evolution of the economic

process, the socio-political environment, the value systems in the society and even the climatic conditions. From these arguments the specific regional factors which have or would influence industrial development of the region have to be looked at more seriously.

Although before 1956, Kerala consisted of two princely states and only the northern part was directly under the British rule, the colonial policies had directly or indirectly influenced the course of the Kerala economy. An example of this lies in the fact that the erstwhile Travancore State which was exporting rice before 1860 later turned out to be an importer of food grains⁵. Historians had shown that in Travancore the state policy of encouraging cash crops led to a rapid growth of commercialisation of agriculture at the expense of food production, mostly under the influence of the colonial rule. While import of food to Britain was aimed at focusing on industrialising that country, the import of food to Travancore was resorted to for encouraging the cultivation of plantation crops. Thus, Kerala's economic growth resembles many of the plantation economy of Third World whose retarded growth has been explained in terms of the dependency paradigm. Even after independence the successive governments in Kerala continued to follow the colonial policy of encouraging the production of cash crops. Economists who have analysed the phenomenon later have criticised this approach stating that a surplus of cash crops unsold puts the farmer to great-

er hardship than a surplus of food unsold, thus making the price and market conditions very crucial. They also pointed out that the linkage of the plantation crops to the rest of the economy is low and therefore cannot act as the leading sector for initiating growth. At least in the case of Kerala, this argument appears to be true considering the abysmally low level of value addition taking place on its major plantation crop viz; rubber. This is largely due to the fact that high levels of value addition in rubber industry is dependent on the availability of a variety of other raw materials and also through an inter-linkage of industries using rubber and rubber products. In Kerala, the early commercialisation of agriculture and the establishment of trade links with the international markets resulted in only two economic activities viz; trading and banking. This coupled with the reasons described in Chapter 4 resulted in 'industry' getting undermined and confined to the traditional cottage and processing industries based on the local agricultural resources. Thus, two important traditional industries viz; coir, and cashew came into existence in a highly decentralised manner. Thus, historically, Kerala had only traditional industries mostly agro-based, to start with.

As explained in Chapter - 4, the period from 1936 to 1947 had seen the setting up of a few modern medium and large industries in Kerala. Some of them were pioneering attempts. But, at the time of the formation of the state in 1956,

Kerala had only these handful of modern industries which were then at early stages of functioning. Further, majority of these units had remained almost as 'islands' with very little inter-industry linkages. Probably, inter-industry linkage and vertical integration, spreading the industrial activity into other sectors would have naturally taken place if there were no frequent policy and priority changes after 1947. Though the present state of Kerala was formed only on November 1, 1956, almost a full decade after Indian independence, this part of the country witnessed frequent changes of Governments including President's rule till April 1957 when the first democratically elected Government came into power in united Kerala. This naturally resulted in losing the unity of direction and political commitment to pursue with the remarkable industrial development efforts made just before independence. Thus, during the formation stage of the State of Kerala the industrial scenario was dominated only by traditional industries like coir, cashew, handloom, etc. and the overall environment provided by a minuscule number of modern industries with no significant forward linkages was not at all conducive for attracting further industrial diversification and expansion, especially by private entrepreneurs. In other words, the state of Kerala started off with a weak industrial base. In fact, even after 1956, the Governments in power in Kerala changed almost every two years till 1970. While a few of these Governments were somewhat pro-labour, all of them were emphasising much on social justice and

welfare. This coupled with burgeoning trade union activities could keep Kerala behind other states in terms of attracting successful industrialists. In fact, those who had set up industrial units during Sir C.P.Ramaswamy Iyer's tenure were gradually preparing to move out of Kerala.⁶

Nandamohan and Thampy in a recent study had concluded that the high levels of labour unrest and the troubled industrial relations climate which persisted in Kerala's industrial sector during the seventies created a phobia among entrepreneurs causing a virtual stagnation in the manufacturing sector.⁷ They also concluded that, though of a lower intensity, this phobia still persists in the industrial sector of Kerala and influences the entrepreneurs' confidence to invest. Thus, even as the rest of the country is poised for rapid industrialisation in an open economy, the question as to how far Kerala's existing base or initial condition is suitable for this rapid industrialisation (which is by and large left to the market forces) is still valid.

5.4 Regional characteristics of Kerala

Kerala, a tiny state in the southern most coastal belt of India has many peculiar features when compared to other states in the country. This is one region which has a high level of quality of life with a relatively low per capita income. The state of Kerala came into existence on November 1, 1956 when the Indian states were re-organised on linguis-

tic basis. The state has the Arabian sea in its West and the Western Ghats on the East. This narrow strip of land with a maximum width of about 120 kilometers and a minimum of about 35 kilometers stretches along the sea shore for a distance of about 580 kilometers. The state has a geographical area of about 38863 sq. km. The Western Ghats have, in fact, made the state cut off from the rest of the country. Thus, the state has climatic, ecological and sociological features different from even its adjoining states. Though this region was alienated from the rest of the Indian sub-continent, the long sea-coast of Kerala was active with commercial trade with foreign countries from as early as 3000 BC. In other words, Kerala is located in a geographically disadvantageous manner in the sub-continent but is strategically located in the Indian ocean. Due to its insularity within the country, this region also remained mostly unaffected by the wars and turmoils that took place in the rest of India. (Fig. 5.1)

Kerala enjoys both south-west and north-east monsoons with an average rain fall of about 3000 mm. With a large number of rivers and rivulets, Kerala is also endowed with 5 per cent of India's total water potential. The agro-climatic conditions of this region with moderate climate are most suitable for vegetation consisting of not only food crops and fruit bearing tree crops but also high value yielding plantation crops such as tea, coffee, rubber, cashew and spices. It is said that Kerala is the first state in India which opened and

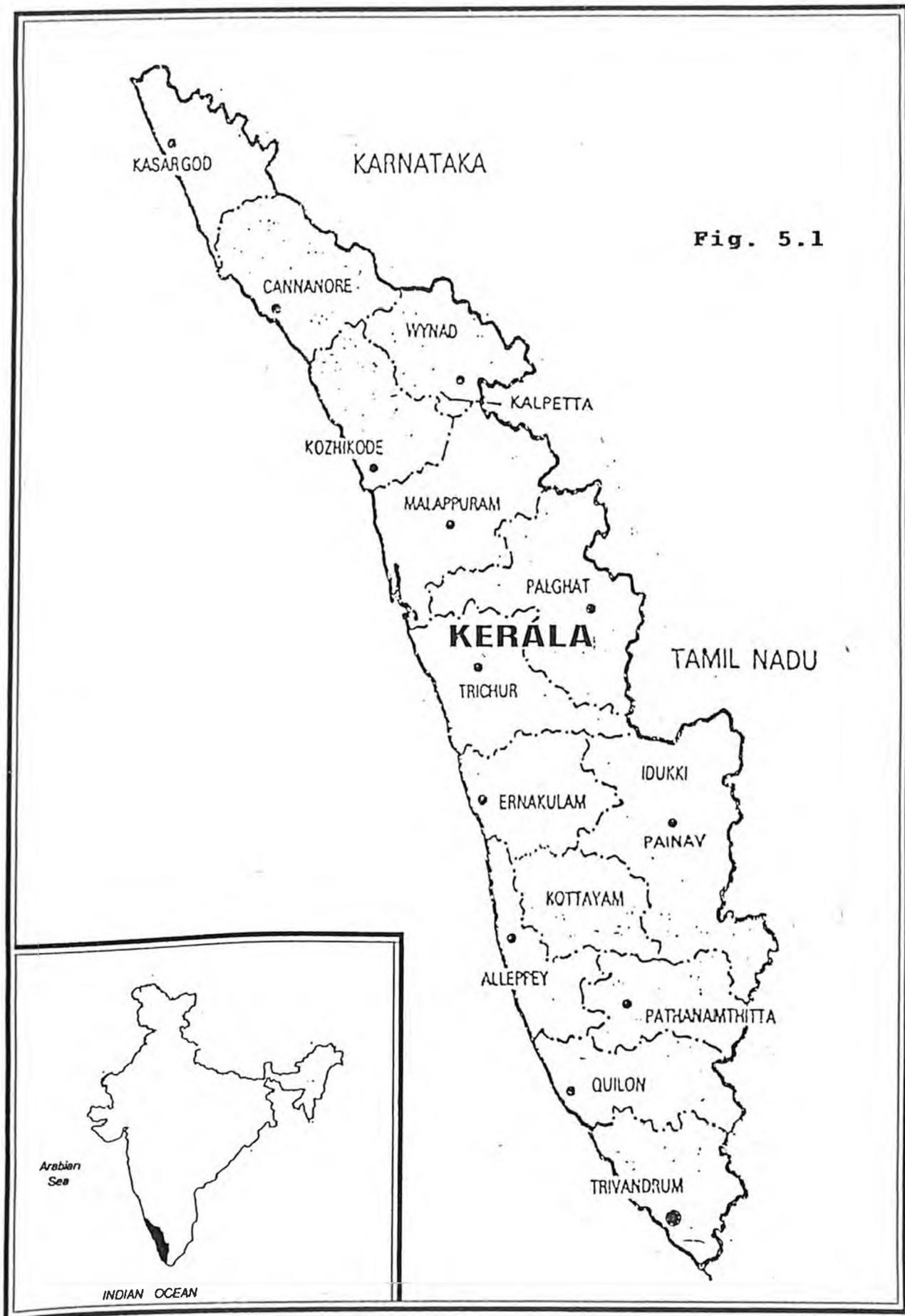


Fig. 5.1

established a commercial link with the outside world mainly due to its advantageous geographical location in the Sea.⁸

5.4.1 A brief account of the resources of Kerala.

Geographically and climatically Kerala forms a distinct region whose topography is dominated by the Western Ghats. The state can be divided length-wise into hills and valleys, midland plains and coastal belt. The climate is generally hot around 30°C and there is not much seasonal variation except in the mountain peaks where pinching cold is experienced. The state enjoys both south-west monsoon beginning in June and north-east monsoon which sets in by around September every year. Kerala is also blessed with a large number of West flowing and three East flowing perennial rivers and rivulets. The major rivers are Bharatapuzha (266 km), Periyar (227 km), Chaliar (154 km), Pampa (176 km), Kadalundipuzha (120 km), Achancovil, Kallada, Chalakkudy and Valapatanam (each being roughly 115 km). One of the distinct features of Kerala is its backwaters and canals which provide facilities for an uninterrupted inland water transportation.⁹ Apart from this Kerala's Ground Water is estimated to be around 7900.29 mcm out of which 6586.81 mcm is available for irrigation and 1313.47 mcm for domestic and industrial purposes.¹⁰

Kerala's soil is highly fertile and has thick vegetation all around. The highland region has clay-loam soils resting on bed rocks, black in colour and rich in nitrogen and potash.

In the midland, the soil is a red ferruginous loam of laterite origin with an admixture of clay and sand. The soil is generally deficient in nitrogen, phosphorous and in many cases potash too.¹¹

Kerala's evergreen tropical forests and monsoon forests provide rich natural resources. As such, 27.83 per cent of the state's land area is covered by forests. Out of the total forest area 36.95 per cent is tropical wet evergreen and semi evergreen and 42.94 per cent tropical moist deciduous.¹²

But for the presence of traces of bauxite, Kerala is practically devoid of the primary industrial and energy raw materials such as iron ore, coal, etc. But, this region is endowed with rich deposits of high quality china clay (Kaolin), silica sand, graphite and variety of valuable rare-earths, minerals such as monozite, ilmenite, rutile, zircon and silliminite.¹³

The vast expanse of marine and inland waters of the state offers rich source of wide varieties of fish. Kerala sea-coast offers about 27 varieties of marine fish and the annual fish landing is about 5,69,000 MT (as in 1989), valued for about Rs.37 lakhs. This accounts for about 15.5 per cent of the country's total production of fish. Apart from this, the inland fish is available from an estimated area of 360535 Ha of rivers, backwaters and reservoirs, the annual quantity of production being 28475 tonnes (as in 1989).¹⁴ Kerala also ac-

counts for about 25 per cent share, both in terms of quantity and value of the total marine products exports from Kerala.

Apart from the aforesaid natural resources Kerala produces a wide variety of agricultural products such as rubber, spices, coconut, cashew, etc. all of which have very high demand even in the international market. The area under major crops and the corresponding production are indicated in Table 5.4.

Table 5.4

Area and Production of important crops in Kerala

			1992-93
Sl. No.	Crop	Area (Ha)	Production
1.	Coconut	877012	5124 (million nuts)
2.	Cashew	109035	95623 "
3.	Betel nuts	63929	13643 "
4.	Rubber	428864	368648 tonnes
5.	Rice	537608	1084878 "
6.	Pepper	183478	49666 "
7.	Tapioca	135033	2629127 "
8.	Coffee	84016	25000 "
9.	Tea	34719	55136 "
10.	Cardamom	43388	2570 "
11.	Pulses	23123	17070 "
12.	Banana	25667	308871 "
13.	Ground nut	15535	11546 "
14.	Cotton	12253	19776 "
15.	Ginger	13937	45403 "

Source : State Planning Board, *Economic Review*, 1994.

Livestock development in Kerala is more or less a household activity and the density of livestock population in this region is higher than that at the national level. According to the latest livestock census conducted in 1987, Kerala accounts for 1.75 per cent of cattle, 0.43 per cent of buffaloes, 1.59 per cent of goats, 1.27 per cent of pigs and 6.62 per cent of poultry in the country. Reportedly, Kerala is holding a cattle population beyond its carrying capacity.¹⁵

5.4.2 Scarcity of land and human settlement pattern

The human settlement pattern in Kerala is substantially different from that in the rest of the country. The clustering of dwellings seen in other parts of India is practically unseen in Kerala. Instead, houses are built in separate pieces of land with compound walls around most of them. These pieces of lands by themselves are significantly self sufficient in terms of fruit bearing trees, wells, etc. These independent scattered settlements provided better environment and hygiene. The moderate tropical climate with very little seasonal variation and the availability of plenty of water also resulted in better personal cleanliness among the people. The aforesaid human settlement pattern was highly admirable from the social point of view, but stood as impediments to large scale economic activities. For instance, the small land holdings in Kerala was a problem for even partial

mechanisation of agriculture with a view to improve productivity. The negative Annual Compound Growth Rate of tractors in Kerala (-0.79%) as against a figure of 13.31 per cent at all-India level described under 4.7 in the earlier chapter is ample proof to this. As per the National Sample Survey - 43rd round, Kerala has the largest percentage of households cultivating land below 0.4 hectare among the Indian states (61.1 per cent as against 19.1 per cent for the whole country¹⁶. The scattered human settlement also resulted in acute scarcity of land in sufficient acreage for large scale farming or industrialisation. This also resulted in the failure of many developmental schemes demanding collectivised efforts. For a better picture of the situation with regard to area, population and density of population, these aspects pertaining to the other three southern states are compared with those of Kerala and shown in Table 5.5

Table 5.5

Area and Population

	Unit	Karnataka	Andhra Pradesh	Tamil Nadu	Kerala
Area	'000Sq.km	191.8	274	130	38.86
Population (1991 census)	Crores	4.5	6.65	5.59	2.9
Density of population	Persons per Sq.km	235	242	429	749

Source : Department of Economics and Statistics, Kerala

Even an analysis of the land use pattern in Kerala (see Table 5.6 and Fig. 5.2) itself will reveal the pressure on the land in Kerala. For a comparative picture, the land use pattern of Tamil Nadu, a neighbouring state, is juxtaposed with Kerala figures. As is evident from the table, Kerala's position, not only in terms of total geographical area, but also in terms of the percentage of free land available under various classifications is negligible when compared to its neighbouring state.

Table 5.6

Land use pattern

		(Area in Ha)	
Sl. No.	Classification of land	1992-93	
		Kerala	Tamil Nadu
(1)	(2)	(3)	(4)
1.	Total Geographical area	3885497 (100)	13018955 (100)
2.	Forest	1081509 (27.83)	2151134 (16.52)
3.	Land put to non-agricultural uses	302798 (7.79)	1821722 (14)
4.	Barren and Uncultivated land	55229 (1.42)	509087 (3.9)
5.	Permanent Pastures and Grazing land	1699 (0.04)	123543 (0.95)

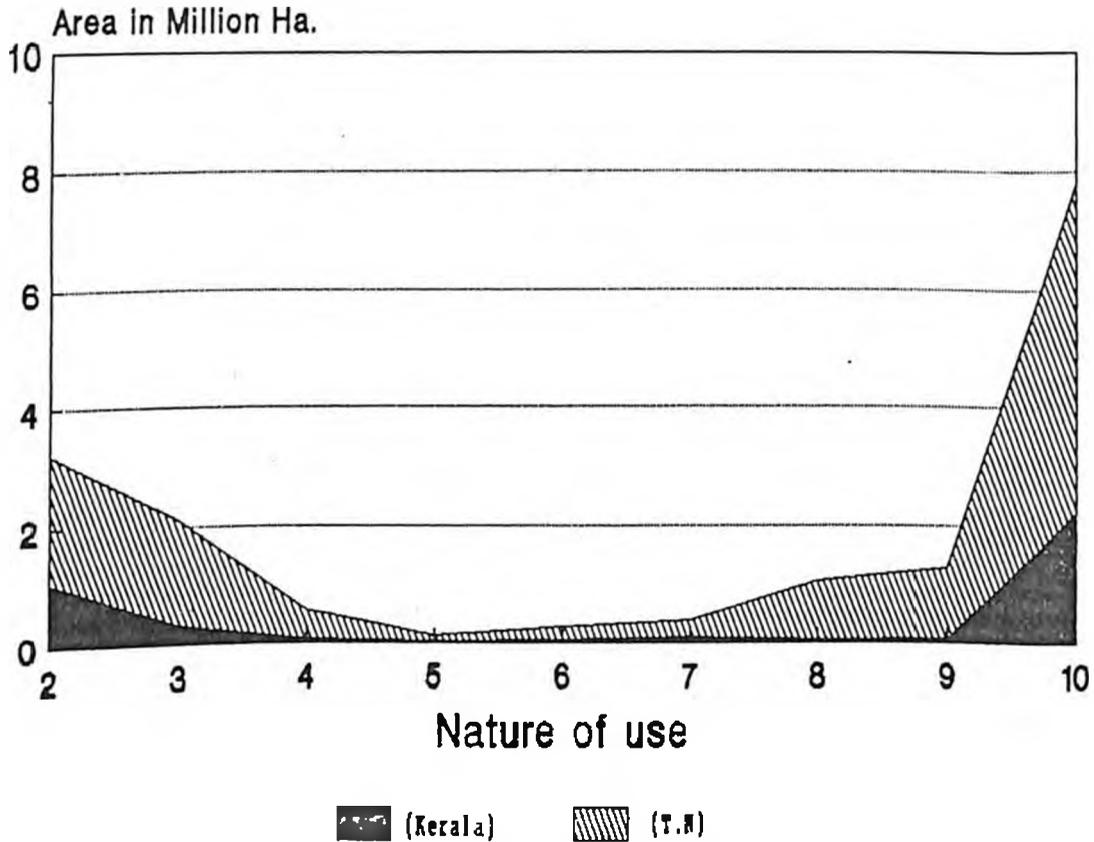
(1)	(2)	(3)	(4)
6.	Land under miscellaneous tree crops not included in net area sown	34054 (0.88)	234067 (1.8)
7.	Cultivable waste	91233 (2.35)	289200 (2.2)
8.	Fallow other than current fallow	27404 (0.71)	1047655 (8.0)
9.	Current fallow	41978 (1.08)	1264053 (9.7)
10.	Net area sown	2249593 (57.9)	5578494 (42.84)
11.	Area sown more than once	796878 (20.51)	1053267 (8.09)
12.	Total cropped area	3046471 (78.41)	6631761 (50.9)

Note : Figures in brackets are percentage to total area.

Sources : 1. State Planning Board, *Economics Review*, 1993
2. CMIE, Statistical Reports.

Fig. 5.2

**Land Use Pattern in Kerala
(Comparison with Tamil Nadu)**



See Table 5.6 to decipher X axis nos.

An analysis of the trend in land utilisation from 1952-53 to 1992-93 also revealed that there had been drastic reductions in barren and uncultivable land and permanent pastures (Table 5.7). Efforts of afforestation and the increase in total cropped area are also obviously evident. These observations coupled with the dispersed human settlement pattern and the

construction boom leaves very little hope for making land available for any drastic industrialisation programme. Land, being one of the basic infrastructural facilities for industrial development in its conventional approach, the scarcity of land itself is a major impediment to the industrial development of this region. The study of wasteland in India by the National Remote Sensing Agency (NRSA) in 1985 using satellite imageries had revealed that only 5.2 per cent of Kerala's geographical area is lying as cultivable or uncultivable wastelands. As against this, at the all-India level the wasteland available was 16 per cent of the total geographical area.¹⁷ The density of population in Kerala (749) is very high and is almost three times the national average (273). Kerala, in fact, has the highest density of population among all other states in the country. Unlike many other states, it is also one continuum with no significant rural-urban divide. The peculiar settlement pattern in the state with a diffused spatial ordering of houses confounding rural-urban boundaries, coupled with a high population density, resulted in the average size of a village becoming much larger in Kerala. These large villages were themselves in the nature of small towns. The resultant scarcity of land and ever increasing land cost adversely affect any plans to set up large scale industries, more so in the case of industries with troublesome effluents. For instance, though raw leather is generated in plenty in this state, setting up a tannery in Kerala will face more problems than in any other state.

Table 5.7

Trend in Land Use Pattern in Kerala

(Area in Ha)

	1952-53	1977-78	1980-81	1983-84	1986-87	1989-90	1992-93
1. Total area	3808861	3885497	3885497	3885497	3885497	3885497	3885497
2. Forests	947251	1081509	1081509	1081509	1081509	1081509	1081509
3. Land put to non-agriculture uses	205011	257276	269824	277719	263017	284850	302798
4. Barren and uncultivable land	214849	75382	85770	86590	82343	65994	55229
5. Permanent pastures and other grazing land	55722	10616	5432	5222	3711	2916	1699
6. Land under miscellaneous tree crops	186322	67960	63875	54701	46614	38095	34054
7. Cultivable waste	181578	118256	129032	128924	129532	107362	91233
8. Fallow land other than current fallow	197259	27118	26886	27539	27727	26609	27404
9. Current fallow	44010	46111	43579	42938	44258	46044	41978
10. Net area sown	1773859	2201269	2179590	2180355	2206736	2252118	2249593
11. Total cropped area	2089108	2923804	2884840	2861702	2870314	3019019	3046471

5.4.3 Some demographic features

Kerala has a total area of 38,863 sq kilometers which accounts for 1.18 per cent of the total area of the country.

According to the 1991 census, Kerala's population accounts for 3.43 per cent of the total population of India (Table 5.8). Kerala's population had increased from 63.96 lakhs in 1901 to 290.11 lakhs in 1991 (Table 5.9). Population had been growing at an annual average rate of 2.2 per cent between 1941 and 1971. But, since 1971 there has been a continuous decline in the population growth rate. In the 1980s, the population growth rate in the state was the lowest compared to the rate of all states and union territories of the country.

Table 5.8

Population of Kerala and India

Census Year	Population of India (in lakhs)	Population of Kerala (in lakhs)	Kerala's Population as a percentage of India
1901	- -	64	- -
1961	4392	169	3.84
1971	5482	213	3.88
1981	6852	255	3.72
1991	8463	290	3.43

Source : Department of Economics and Statistics, *Statistics for planning*, 1993.

Table 5.9

Growth of Population

Year	Population in Lakhs			Decennial percentage change		
	Male	Female	Persons	Male	Female	Persons
1901	31.91	32.05	63.96	-	-	-
1911	35.60	35.88	71.48	11.6	12.0	11.8
1921	38.79	39.23	78.02	9.0	9.3	9.2
1931	47.03	48.04	95.07	21.3	22.5	21.9
1941	54.44	55.88	110.32	15.8	16.3	16.0
1951	66.82	68.67	135.49	22.7	22.9	22.8
1961	83.62	85.42	169.04	25.2	24.4	24.8
1971	105.88	107.59	213.47	26.6	26.0	26.3
1981	125.28	129.26	254.54	18.3	20.2	19.2
1991	142.18	147.93	290.11	13.4	14.4	13.9

Sources : 1. Department of Economics and Statistics,
Various Statistical Reports.

2. Government of Kerala, *Facts and Figures*, 1990.

Higher levels of education and literacy have been pointed out as one of the major achievements of Kerala. While this is true from the point of view of social development, this achievement have not been so far found to contribute to the economy of this region in a productive manner except for the inflow of the foreign remittances from the Non-Resident Keralites (NRK). In fact, attainment of higher education levels even much before independence and the development of private educational institutions as part of the missionary work was a unique phenomenon in Kerala. The growth of general

literacy rate of Kerala in comparison to the national average shown in Table 5.10 is highly revealing. From the table it is clear that Kerala was much ahead of the country-as-a-whole even during the early 1900s, though at that point of time the country 'India' and the state 'Kerala' as such were not in existence as a political entity in its present form. Another major observation is the comparatively high literacy rate of the women in Kerala. This achievement can be mainly attributed to the emphasis given to educational development and provision of basic educational facilities within easy access to the people throughout the state. Nearly 98 per cent of the students in rural areas have access to a rural primary school within a distance of two kilometers. As a result of educational development, rapid growth in the educational levels of population took place. The changes in education levels that have taken place during the two decades from 1961 is depicted in Table 5.11.

5.4.4 Education and its impact

From Tables 5.10 and 5.11 it is almost clear that Kerala is ahead of other Indian states as far as education is concerned. Since education is primarily a state responsibility the nature of the developmental approach in this area had been part of the state policies. In fact, the education

Table 5.10

General Literacy Rate (1901-1981)

Census Year	Kerala (Percentage)			India (Percentage)		
	Male	Female	Persons	Male	Female	Persons
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1901	19.15	3.15	11.14	9.83	0.60	5.35
1911	22.25	4.43	13.31	10.56	1.05	5.92
1921	27.88	10.26	19.02	12.21	1.81	7.16
1931	30.89	11.99	21.34	15.59	2.93	9.50
1941	N A	N A	N A	24.90	7.30	16.10
1951	49.79	31.41	40.47	24.95	7.93	16.67
1961	54.97	38.90	46.85	34.44	12.95	24.02
1971	66.62	54.31	60.42	39.45	18.69	29.45
1981	75.26	65.73	70.42	46.62	24.73	36.03
1991	93.62	86.17	89.81	64.13	39.29	52.21

N A - Not available

Source : Census of India and Kerala - Various decadal volumes
State Planning Board ; *Economic Review*, 1994

Table 5.11

Educational Levels of Population

(Percent)

Educational Levels	1961	1981
	(Persons)	(Persons)
1. Illiterate	53.2	29.6
2. Literate	31.0	19.8
3. Below SSLC	12.0	40.6
4. SSLC and above	3.8	10.1

Source : Census Survey Reports

development in the state of Kerala had a long history stretching for centuries. Even the erstwhile princely states of Travancore and Cochin had 133 and 124 literate persons respectively per thousand population making them stand first on this aspect when compared to other Indian states and provinces. In these two southern states, on the one hand, new government schools were opened and on the other, there was provision of grants-in-aid to private schools. This coincided with the active interest in educational development shown by Christian missionaries and other private agencies. Thus, as early as in 1901 there was one educational institution per 792 persons and 1.9 sq.mile area¹⁸. The very first college in the State was established in 1816 and the first University in 1937. The greater degree of commercialised agriculture, changing pattern of land relations and introduction of administration on British lines gradually generated demand for educated manpower. In the post independence period also, the governments in power continued with a development programme with sufficient emphasis on education. State funding was also liberal even for private educational institutions. It was, in fact, unique compared to many other states that the government spent from public revenue towards a scheme of direct payment system to teaching and non-teaching staff of aided private institutions right from primary level to collegiate level. In 1985-86 the state spent nearly 40 per cent of its total development expenditure on education.

The recent statistics show that there are 5868736 students studying in 12096 schools in Kerala ie; on an average 864 schools per district (approximately in the ratio 1:0.44:0.37 of Lower Primary, Upper Primary and Higher Secondary Schools) and one school for every 500 students. For the 14 districts of Kerala, there are more than 220 colleges for about 5,70,000 students of higher education which includes 3,80,000 pre-degree students and professional students. Thus, on an average, there are 16 colleges per district¹⁹. Another notable feature of the education system is the sex ratio in the higher education - for every male student in college there is 1.05 female student, indicating the over-all coverage achieved by education in terms of numbers or the quantity.

The education expenditure in Kerala for a few years starting from 1960-61 in comparison to the national average and a few industrially developed states shown in Table 5.12 highlights the importance which was attached to education in the State of Kerala. The per capita expenditure in Kerala was found to be consistently standing above the national average and also that of a few selected states. Kerala was the state which was in the fore front in initiating reforms to democratise education. An important aspect of educational policy in the state was the recognition of the role of private sector. Much of the educational development in the state took place with active private sector participation. Recent statistics show that 61 per cent of schools and 60 per cent school students

are in the private sector. Similarly 80 per cent of colleges and 83 per cent of students are also under private management.²⁰ In spite of all these, when it comes to job oriented and professional courses and also for higher education, especially in the field of medicine, there is a large scale migration of Keralite students to the neighbouring states. This also results in the outflow of large amounts of money as capitation fee. A very rough estimate would put this outflow of capital at about Rs.80 crores per annum. The causes and effects of this phenomenon is interesting. First of all, there is a restriction from a segment of the society, especially the left wing political parties, in commercialising education by setting up 'self-supporting' educational institutions of higher learning on the grounds that it will dilute the quality of education, especially in the field of medicine. While this argument is in a way true, this approach has also resulted in : (a) the State of Kerala losing an opportunity for capitalising on one of its major strengths, (b) losing an opportunity to create sophisticated facilities for research, higher learning, super-speciality hospitals, etc. and (c) the steady outflow of potentially productive capital which if used with utmost care and quality consciousness would convert the state into a centre of higher learning instead of trying to maintain the mediocre quality levels due to resource constraints. In fact, the large number of educational institutions have also resulted in a thin distribution of available funds making it inadequate for any significant

qualitative improvement. Developing Kerala as a 'Centre for higher learning and research' is all the more significant considering the limitations of the state in accommodating large industrial establishments to contribute to the economy and also to generate employment opportunities. With a large number of regulatory mechanisms in vogue it is, in fact, not much difficult to take care of the quality control of such educational institutions. The quality of such institutions could very well be taken care even at the entry level of students by raising the present minimum level of 50 per cent marks to at least a minimum 60 per cent, to start with. Gradually it could be increased as the situation demands. With practically no successful mechanism to control the mushroom growth of such institutions in the neighbouring States, the state of Kerala will be simply losing an opportunity to capitalise on one of its very few strong areas. As such, there is no room for any euphoria even with the quality of the present educational system. The low rate of success of Keralite students in competitive examinations such as the Civil Services, Indian Engineering Service, etc. is ample proof for this. On the other hand, what is really taking place with the kind of education which is followed here is that a sizable number of the educated youth with agrarian family background leave the primary sector and do not really become part of any other productive sector. Instead, majority of them throng at the doors of the government departments for jobs. Thus, the educational thrust in the state remained

more like a 'push system' without considering the needs in the society. A typical example of this phenomenon is the failure of the vocational educational programme of the state. Though over a period of six years from 1983-84 enrollment in the vocational system increased from 570 to 3619²¹ this figure accounted only for 1.8 per cent of the total enrollment at the Pre-degree level whereas the target was to cover 10 per cent of the Higher Secondary students. Kerala is one state which is trailing behind all the others in this respect as all India coverage is around 2.5 per cent²².

Table 5.12

Expenditure on Education - a comparison

Year	Total Expenditure in Kerala (Rs. in crores)	Per Capita Expenditure (Rs.)					
		Kerala	India	T N	A P	Karnataka	Maharashtra
1960-61	18.55	10.90	6.31	N A	N A	N A	N A
1970-71	60.00	28.00	15.00	N A	N A	N A	N A
1980-81	217.00	85.00	47.00	50.00	43.00	47.00	61.00
1985-86	425.00	167.00	102.00	107.00	92.00	92.00	114.00
1987-88	527.00	203.00	136.00	129.00	114.00	134.00	151.00
1988-89	542.13	220.00	163.00	145.00	127.00	146.00	176.00
1991-92	815.23	282.00	208.00	242.00	179.00	219.00	271.00

Note : T N - Tamil Nadu ; A P - Andhra Pradesh ; N A - Not Available

Sources : 1. Department of Economics and Statistics ; *Statistics for Planning*, 1993
2. State Planning Board ; *Economic Review*, 1991 and 1994.

Based on the above analysis it is clear that Kerala has almost a luxurious educational set up in terms of quantity and not necessarily the quality. An analysis of the work participation rate and the employment or unemployment scenario might throw more light on this aspect.

Work participation rate:

The work participation rate denoting the percentage of workers to total population will give an idea about the participation of population in gainful employment activities. With a substantial control over its population growth, ideally speaking, Kerala with its higher education levels should have been gradually enhancing its work participation rate. A look into the work participation rates over the years (Table 5.13) would reveal that this has not really taken place. While this reduction in work participation could be due to various reasons, the ineffectiveness of the education system in making useful contributions to the economic prosperity of the region is somewhat evident from this.

Table 5.13

Work Participation Rates in Kerala (1901-1991)

Year	Male (%)	Female (%)	Persons (%)
1901	56.3	32.7	44.5
1911	53.8	28.9	41.3
1921	51.1	24.9	37.9
1931	50.0	35.9	42.9
1941	N A	N A	N A
1951	46.7	18.3	32.2
1961	47.2	19.7	33.3
1971	45.2	14.6	29.8
1981	44.9 (52.7)	16.6 (19.8)	30.5 (36.8)
1991	47.58(51.55)	15.85(22.5)	31.43(37.46)

Notes : Figures in brackets are all-India figures ; N A : Not available

Source : Department of Economics and Statistics.

A further analysis would reveal that the low work participation rate may also be due to the following reasons:

- (a) the spread of schooling and longer periods spent in education and resultant delayed entry into the labour force.
- (b) the time wasted by the educated youth in first trying for a government job and then for quasi-government and private jobs almost in that order. A sample survey conducted among potential entrepreneurs revealed that, on an average, the educated youth in Kerala spent about 5 years for job hunting before they find no other alternative but to start their own enterprises (see Chapter-4).

(c) the educated leaving their traditional industrial and agricultural activities in which their ancestors had been gainfully employed.

It is also interesting to note that Kerala which was consistently well above the national average and most of the other states in terms of literacy and expenditure on education is almost consistently lagging behind many of them as far as work participation is concerned (see Table 5.14). It is, in fact, astonishing to note that Kerala which is far ahead in female literacy and which also has more women (2.98 lakhs) attending colleges than men (2.77 lakhs) has a relatively very low female work participation rate when compared to many other states. On a holistic approach, all these observations also imply the failure of the total socio-political set up and more specifically the educational system in nurturing value systems favourable for economic activities and entrepreneurship. This would also mean that the 'push system' of education so far practiced have not been really beneficial to the region in economic terms. This calls for the necessity of a need based 'Manpower Planning' approach which shall essentially be a 'pull system'.

Table 5.14

Comparison of Literacy and Work Participation Rates

(Percentage as in 1991)

States	Literacy		Rate	Work Participation Rate		
	M	F	Total	M	F	Total
Kerala	93.62	86.13	89.79	47.58	15.85	31.43
Andhra Pradesh	55.13	32.72	44.09	55.48	34.32	45.05
Karnataka	67.26	44.34	56.04	54.09	29.39	41.99
Tamil Nadu	73.75	51.33	62.66	56.39	29.89	43.41
Maharashtra	76.56	52.32	64.87	52.16	33.11	42.96
India	64.13	39.29	52.21	51.55	22.25	37.46

Note : M - Male ; F - Female

Sources : 1. Department of Economics and Statistics, *Statistics for Planning*, 1993.
2. Department of Economics and Statistics, *Kerala at a Glance*, 1992.

Employment Scenario

The contradictions that have emerged in the development process in Kerala have their roots in the stagnation in the productive sectors, mainly with regard to manufacturing sector. Added to this was the gradual weakening of the primary sector activities. Though, the secondary and tertiary sectors showed positive growth during this period, creation of employment opportunities was not to the extent as witnessed in other states. Thus, unemployment, especially among the educated, has been growing rapidly and has now become more or less a chronic problem. The live register figure of job seekers has now risen to 40.23 lakhs. As on 31-03-94, there were 26.70 lakhs job seekers having qualifi-

cations SSLC and above. The total number of professional and technical job seekers were 1.29 lakh in 1994.²³

The district-wise distribution of total work seekers in Kerala is given in Table 5.15. It may be noted that the State capital, Trivandrum, itself accounted for nearly 28 per cent of the work seekers thereby topping the list among the districts in the state.

Table 5.15

District wise distribution of
Total Work Seekers - 1993

Districts	No.
Trivandrum	741855
Quilon	407564
Alleppy	332540
Pathanamthitta	175261
Kottayam	324861
Idukki	126815
Ernakulam	430480
Trichur	321689
Palghat	259787
Malappuram	199575
Calicut	308383
Wayanad	63926
Cannanore	223545
Kasargode	72085
Total	4023219

Source : State Planning Board, *Economic Review*, 1994.

The proportion of educated work seekers (S.S.L.C and above) was steadily on the increase over the years. From 52 per cent in 1980, it has gone up to 66 per cent in 1994. Work

seekers as a percentage of the total population has increased several folds in about a decade from 1980. These increases could be attributed to the rapid growth in the levels of education in the state. As at the end of May 1994, there were 26.7 lakh work seekers having S.S.L.C and higher qualifications . This consisted of 21.5 lakh matriculates, 3.1 lakhs PDC holders, 1.8 lakh graduates and 33751 post graduates on the hunt for a job (Table 5.16). The overall scenario, therefore, looks as if education by itself was an 'unemployment in disguise' as far as Kerala was concerned.

Table 5.16

Distribution of Work Seekers in Kerala by Education Level

Year	Total Work Seekers	Below S.S.L.C	% to Total Work Seekers	S.S.L.C	Pre-Degree	Graduate	Post Graduate	S.S.L.C & Above	% to Total Work Seekers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1980	1579164 (6.2)	767141	48	658652	79310	67841	8220	814023	52
1988	2914383	1234046	42	1400996	158085	106850	14406	1680337	58
1989	2910305	1184055	41	1443826	162589	100577	19258	1726250	59
1990	3103722	1230911	40	1544629	188726	117330	22126	1872811	60
1991	3363842 (11.55)	1268809	38	1710868	224978	132878	26309	2095033	62
1992	3733734	1349390	36	1937914	263690	153537	29203	2384344	64
1993	3882960	1371874	35	2032502	286375	163518	28691	2511986	65
1994	4044566	1373985	34	2150614	308983	177233	33751	2670581	66

Notes : 1. Figures in brackets are percentages to projected total population in the case of 1980 and actual total population in the case of 1991.
2. Percentages in column 4 and 10 relate to 'Below SSLC' and 'SSLC and above'.

Sources : 1. Department of Economic and Statistics ; *Statistics for Planning*, 1993
2. State Planning Board ; *Economic Review*, 1994

The number of technical and professional work seekers has also been growing over the years. In 1990 there were 1,16,388 technical and professional job seekers in Kerala. It increased to 1.25 lakh in 1994, comprising medical (3341), engineering (40,492), ITI (81,253), agriculture (498) and veterinary (103) professionals. While it is true that the number of Engineering educational institutions are much more than that under the other professional streams (which should ideally be so to cater to the increasing needs in the manufacturing sector) the huge surplus in this field of study also indicate either a stagnation in the manufacturing sector or an education system which is not need based. It could also be a situation of both the problems existing together (Table 5.17). The annual out-turn of students in the five government and three private engineering colleges in the State averages around 1,600. The annual out-turn of students from the 32 polytechnics of the State are between 2,500 and 3,000. The 48 technical schools turn out around 2,000 candidates skilled in vocational training every year. Thus, over the years, the state has been witnessing a curious phenomenon of its very assets turning into liabilities. The system is unable to absorb even a fraction of the qualified candidates churned out by a perhaps excessively developed education infrastructure.

Table 5.17

Number of Professional and Technical Work Seekers

Year	Medical Graduate	Engineering Graduate	Diploma Holders in Engineering	ITI Certificate Holders	Agriculture Graduate	Veterinary Graduate
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988	1256	4259	16562	61792	248	50
1989	1298	5153	17641	66402	345	54
1990	1559	6093	19068	78212	318	118
1991	2539	7450	21482	79714	355	85
1992	2785	7904	23856	81188	283	172
1993	3147	8973	26273	63379	381	83
1994	3341	9754	30638	81253	498	103

Sources : 1. Department of Economic and Statistics ; *Statistics for Planning*, 1993
 2. State Planning Board ; *Economic Review*, 1994

Employment in the organised sector

One of the disappointing aspects of Kerala's development has been the poor expansion of the organised public sector and private sectors and the consequent lack of generation of employment opportunities. During the decade 1966-76, the public sector expanded by 67 per cent as against only a 11 per cent growth in the private sector. But, during the next decade ie; 1976-86, the corresponding figures fell to 32 per cent and 7 per cent respectively²⁴. Since then, the private sector employment has been negative. Kerala is one among the states which registered a negative growth in employment during the eighties in the large-scale manufacturing sector

(Tables 5.18 and 5.19). A ranking of states based on growth rates in the registered manufacturing sector also revealed that Kerala's position is around twelfth. However, there has been a marginal increase in recent years. One of the notable aspect in the employment scenario of Kerala is that out of the total employment of 11.86 lakhs in the organised sector (as on 31st March 1993), 54.9% (6.48 lakhs) is in the public sector as against 45.1% (5.33 lakhs) in the private. The share of the public sector in the organised sector employment has gone up from 41.7 per cent in 1970 to 48.5 per cent in 1980 and further to 54.9 per cent in 1992. The gradually declining trend of employment in the private sector, in fact, indicates the frail nature of entrepreneurial activities in the state. Apart from this, being industrially backward, Kerala, would also, perhaps, rank first among all the states in terms of under-employment of the educated and the skilled. According to the latest declaration in the Rajya Sabha, there are nearly 46 lakhs educated unemployed in the country with Kerala, the most literate state, topping the list with 7.29 lakhs educated unemployed. Educated unemployment is comparatively a recent phenomenon resulting from economic under-development and wrong educational policies. Population explosion, unprecedented growth of formal education, slow economic growth, unemployability of the educated persons are some of the common reasons for the unemployment of the educated.

Table 5.18

Employment in the Organised Sector in Kerala

Sector	1970	1975	1980	1985	1990	1992	*ACGR	ACGR	ACGR	ACGR	ACGR
							between the years 1970 and 1975	between the years 1975 and 1980	between the years 1980 and 1985	between the years 1985 and 1990	between the years 1990 and 1992
(Numbers)							(%)	(%)	(%)	(%)	(%)
Public Sector	293318 (41.7)	418151	496659 (48.5)	568713	634379	648215 (54.9)	7.349	3.501	2.746	2.209	1.08
Private Sector	409562 (58.3)	462712	526459 (51.5)	507395	512034	532922 (45.1)	2.470	2.615	-0.735	0.182	2.0
Total	702880	880863	1023118	1076108	1146413	1181137	4.618	3.039	1.015	1.274	1.5

Notes : * ACGR : Annual Compound Growth Rate ; Figures in brackets indicates percentage to total.

Source : State Planning Board ; *Economic Review*, 1994

Table 5.19

Growth Rates of Employment in
Registered Manufacturing Sector of Different States

(Percentage)

State	Average ACGR Between	
	1970-71 and 80-81	1980-81 and 89-90
(1)	(2)	(3)
Andhra Pradesh	7.44	2.29
Bihar	3.76	-0.54
Gujarat	3.96	0.13
Haryana	5.08	4.06
Karnataka	4.83	0.52

(1)	(2)	(3)
Kerala	3.42	-0.85
Madhya Pradesh	4.82	2.73
Maharashtra	2.94	-0.98
Orissa	4.10	2.02
Punjab	5.39	6.14
Rajasthan	5.58	3.49
Tamil Nadu	3.42	1.87
Uttar Pradesh	7.03	0.37
West Bengal	1.19	-2.79
All India	3.99	0.60

Source : CMIE, *Basic Statistics Relating to States of India*, September, 1994.

5.4.5 Unemployment in Kerala - a comparative picture

Kerala which accounts for only about 3.5 per cent of the country's population has about 16 per cent share in the total unemployed in the country. Ratio of the State's share of the unemployed (in the total unemployed of the country) to the state's population share is a good indicator of the relative intensity of unemployment. A relative intensity figure above unity indicates a high incidence of unemployment.²⁵ From Table 5.20 it can be seen that the relative intensity of unemployment in Kerala is 4.64 making it top in the list. While Tamil Nadu stands second, Andhra Pradesh is fifth and Karnataka is much below. Uttar Pradesh which has the highest share of population, however, has the lowest intensity of unemployment.

Table 5.20

State-wise Share of Unemployed Persons (usual status) and
Relative Intensity of Unemployment

State	Population (1991 Census) (`000)	Per- cent	Unemployed Persons (`000)	Per- cent	Relative Intensity of Unemp- loyment
Andhara Pradesh	66508	7.86	1163	9.84	1.25
Assam	22414	2.64	402	3.40	1.29
Bihar	86374	10.20	691	5.85	0.57
Gujarat	41310	4.88	416	3.52	0.72
Haryana	16464	1.95	283	2.39	1.22
Himachal Pradesh	5111	0.61	68	0.58	0.95
Karnataka	44977	5.31	444	3.76	0.71
Kerala	29098	3.43	1879	15.90	4.64
Madhya Pradesh	66181	7.82	413	3.49	0.44
Maharashtra	78937	9.33	941	7.96	0.85
Orissa	31660	3.74	545	4.61	1.24
Punjab	20282	2.39	259	2.19	0.92
Rajasthan	44006	5.20	4876	4.03	0.77
Tamil Nadu	55859	6.60	1344	11.37	1.72
Uttar Pradesh	139112	16.44	844	7.14	0.43
West Bengal	68078	8.04	1311	11.09	1.38
Others	29874	3.53	339	2.87	0.81
All-India	846303	100.00	11818	100.00	1.00

Source : M.A.Oommen, 'The Acute Unemployment Problem :
Some Explanatory Hypotheses', *IASSI Quarterly*,
Vol.10, No.3, 1990.

Oommen (1990), based on the National Sample Survey Organisation's (NSSO) survey, had concluded that Kerala has seen highest incidence of unemployment both for males and females in rural as well as urban areas. The lowest unemployment rate for Kerala was seen among rural males with 12.5 per cent as

against a corresponding all-India average of 2.8 per cent. It was also found that the severity is most acute among urban females of Kerala (40.3 per cent as against 12 per cent for the country as a whole). Kerala also has the highest unemployment rate for the educated. For the rural educated females, the unemployment rate is as high as 57 per cent which would result in more pressure for teaching and clerical jobs which are considered to be more suitable for female work seekers.²⁶ The degree holders survey conducted along with 1981 census had revealed that 38.7 per cent of the degree holders were in administrative work and almost equal percentage (36) in teaching profession. Only 0.36 per cent were engaged in industrial or production activities (Table 5.21). Though enough data pertaining to subsequent years are not readily available it could very well be concluded that the same trend would have continued till the nineties, especially taking into account the stagnation in the productive sectors in Kerala. This would also mean that the educational system in Kerala continues to churn out generalists who may not be able to readily fit into the productive functions in a society. As seen earlier, Kerala is much ahead of all the other states in terms of literacy and the expenditure on education. But, the severity of the unemployment problem as revealed by the above analyses point to the ineffectiveness of the educational system in providing gainful employment within the state.

Table 5.21

Distribution of Degree Holders by Nature of Work

		1981	
Type of Organisation		Total	Per cent
1.	Teaching Extension	19930	36.03
2.	Teaching/Research	155	0.28
3.	Research	155	0.28
4.	Design/Develop/Testing	75	0.14
5.	Production Industrial	200	0.36
6.	Operation, Maintenance	380	0.69
7.	Consultation	2395	4.21
8.	Sales and Marketing	1565	2.83
9.	Management	2330	4.21
10.	Administration	21420	38.72
11.	Editing, Reprography	215	0.39
12.	Accounts, Auditing	3470	6.27
13.	Art	40	0.07
14.	Others	2990	5.40
15.	Total	55320	100.00

Source : *Degree Holders and Technical Personnel Survey, Census, 1981, Volume 5.*

Sample survey results

The sample survey conducted among potential entrepreneurs (for details, see 4.11 in Chapter 4) also revealed the following aspects with regard to the ineffectiveness of the present education system:

- (a) Education as such has not played any significant role in nurturing entrepreneurial qualities in the young minds.

(b) After education, on an average, more than five years of an individual was found to have been wasted in job hunting and about a similar period spent in shifting from one job to another (mostly petty jobs) before deciding to be an entrepreneur. This, essentially, shows that the education they have undergone was not really based on a specific need in the society. It was just as part of a general trend to earn a white collar job and was partly unemployment in disguise. The survey also revealed that 35.5 per cent of the unproductive time of those potential entrepreneurs were wasted in trying for a government job, particularly through the Public Service Commission.

The Unemployment Survey (1987) conducted by Government of Kerala had also revealed that only 8 per cent of the job seekers (educated and non-educated together) get a job within six months. It was found that 21 per cent wait for more than five years (Table 5.22). Given below are the other major findings of the study:

(a) The average waiting time of the educated of all categories to get a job for the first time is over 30 months for permanent employment and 27 months even for a temporary job.

(b) Graduate engineers wait more than a year to get a temporary job²⁷.

(c) Waiting time for SSLC holders with typing qualification is comparatively low.

Table 5.22

Average Initial Waiting Period (months) and Monthly Salary (Rs.) for Permanent and Temporary Employment Seekers in Kerala

Qualification	Permanent		Temporary	
	Waiting	Salary Income	Waiting	Salary Income
SSLC equivalent	47.98	808.96	34.8	439.45
SSLC + ITI equivalent	34.00	848.33	20.88	538.37
SSLC + Typing	14.63	612.50	30.62	415.32
SSLC + Other qualifications	40.75	794.67	19.69	490.54
Pre-Degree (PDC)	42.71	1242.94	37.22	464.80
PDC + Vocational Training	39.54	1481.69	19.33	534.19
Graduation	23.56	1258.12	20.01	608.32
Post graduation	21.90	1765.71	16.29	1072.37
All	30.87	1275.43	27.18	541.07

Source : T. Issac, and C. Mukherji, *Report on the Survey of Educated Unemployed in Kerala*, Centre For Development Studies, Trivandrum.

Education by Objectives

The burgeoning number of educated youth at different levels in Kerala is simply the result of a chain reaction. The number of students passing the SSLC examination rose from 0.47 lakh in 1960 to more than 2.85 lakh (50 % of those appearing for the examination) in 1993. This spurt in the growth of matriculates created a chain reaction resulting in growing demand for pre-degree and graduate education for

which both the private sector and the government reacted by multiplying the number of colleges almost in a repetitive fashion without considering the manpower needs in the society. With the result, the state literally ended up churning out graduates with general background.

Before concluding the analysis on the effectiveness of the educational system a recent study conducted by the Human Resources Development Ministry should also be looked into.²⁸ The study asserted that the minimum level of learning (MLL) in a totally literate Kerala is almost on par with that of a nearly illiterate Bihar. Similarly the 'Baseline Achievement studies' on 'learning achievement of primary school children' undertaken by NCERT also revealed that the achievement level of primary school children in Kerala is well below the national averages. The survey also revealed that teachers themselves exhibited very low level of comprehension in language and mathematics. Another national survey of achievement of primary school children in mathematics and language conducted by the NCERT with World Bank aid revealed very low levels of learning achievement in Kerala.

The MLL study highlighted the importance of stressing on the relevance, functionality and achievability to acquire knowledge, comprehension, application, etc. In contradiction to this, in Kerala, with over loaded syllabus and curriculum the emphasis was on quantity and not quality.

The analysis done earlier had shown that the educational system followed in Kerala was practically alienating the youth from many of the productive sectors in which their ancestors were gainfully employed. At the lowest level, the type of education received by a vast majority neither prepares them for employment nor helps them to enhance their abilities to perform their family occupation. In other words, the ill conceived educational policies have been doing more harm than good. For instance, in those regions where the educational level is comparatively low, the natural process of making a living prompts individuals to take up more entrepreneurial careers resulting in generation of further employment opportunities. What has happened to Kerala seems to be a shift in this natural phenomenon due to the government intervention with an ill-conceived educational policy which was never a need based one linked to the productive functions in the society. Over a period of time, this has also changed the societal value systems. All these analyses again prove that this state is yet to follow a system of 'Education by Objectives'.

Even if the present system is partially capable of catering to the needs at least in the Government sector, this again is made impossible by creating a 'bottle neck' between the educational institutions and the potential government and quasi-government organisations, including those in the manufacturing and other productive sectors. The 'bottle neck' is

nothing other than the selection through a protracted procedure of the State Public Service Commission which, on an average, takes about five years for any selection. This, not only incapacitates employers in getting the right people at the right time but also impedes the productive functioning of these organisations. This system of selection which is now being widened to cover almost all government and quasi-government (including autonomous corporations) is purely a 'puritanic' approach which would further impede the growth of this region as the Public Service Commission's protracted process would also fail to respond to the changing needs in a mercurial and open economic environment.

5.4.6 Wage-cost factors

A high level committee of the Kerala State Planning Board had reported that while employment generation has been low due to low investment and low rate of growth, especially in industry, trade union movements backed by political parties' organised agitations had pushed up the wages and other emoluments of the labour employed in the organised sector.²⁹ Subrahmanian and Pillai (1986) attempted to refute this hypothesis and came with the conclusion that wages in relation to productivity have been relatively lower in most industries in Kerala³⁰. Thampy (1990) pointed out the limitations of this study including the coverage which was limited to only large scale industries and also the high weightage of a low-wage and highly labour-intensive cashew processing

industry³¹. Thampy extended this examination to the SSI sector and analysed the wage-cost hypothesis by comparing the trend in industrial wages and its relationship with labour productivity. An examination of the data on wages and labour productivity for the years 1970-71 to 1982-83 showed that the wage per worker in Kerala had increased by three-and-half times, while productivity had multiplied only by less than two times (see Table 5.23). For all-India, the increase has been three times for both wages and productivity. The average wage in Kerala has been above the national average throughout the period.

Table 5.23

Trends in Wages and Labour Productivity in Kerala
in the SSI sector (Rs.)

Year	Kerala		All-India	
	Wages per Worker	Value Added per Worker	Wages per Worker	Value Added per Worker
1970-71	1,315	6,213	1,313	4,783
1971-72	1,492	5,735	1,365	5,348
1973-74	1,763	4,679	1,670	5,977
1974-75	1,905	5,525	1,809	6,266
1975-76	2,217	5,842	2,021	6,649
1976-77	2,147	7,624	2,123	8,254
1977-78	2,474	8,017	2,192	9,045
1978-79	2,805	8,463	2,588	9,756
1979-80	3,354	9,824	2,954	10,479
1980-81	3,684	10,079	3,291	11,403
1981-82	4,202	10,609	3,534	11,542
1982-83	4,528	12,034	3,990	14,069

Source : Adapted from M.M.Thampy, 'Wage-cost and Kerala's Industrial Stagnation : Study of Organised Small - Sector', Economic and Political Weekly, September 15, 1990.

An inter-state comparison of wages and the value added per worker had also revealed that while the wages per worker in Kerala increased by 244.3 per cent between 1970-71 and 1982-83, the increase in value added per worker was only 93.6 percent during the same period. In Punjab, Tamil Nadu, Uttar Pradesh, Karnataka and Assam the productivity of the workers had shown a higher growth when compared to the rise in wages. A comparison done between Kerala and West Bengal - two states known for their high level of trade union activities, was even more revealing. While both states had accorded increase in wages during the 12 years, the value added in West Bengal had always been above the all-India average. Thus, Kerala presented a picture of high wages and low productivity. Further examination also proved that the wage-cost hypothesis holds good in the case of a large number of industrial groups in Kerala's small sector. In other words, Kerala's small scale industrial sector is characterised by lower labour productivity and higher wages as compared to all-India.³²

While large scale unemployment is a reality in Kerala, the situation of high wages offers yet another paradoxical situation. A further enquiry on this aspect while interviewing entrepreneurs in Kerala and a few entrepreneurs at Karnataka and Tamil Nadu revealed the following points:

- (a) The wages in the organised sector in Kerala are, in fact, lower than what is in existence at least in the industrially developed regions in other states. But, as proved earlier the productivity of Kerala labour would be less.
- (b) Highly qualified personnel (eg: Engineers) are available in Kerala at very cheap and poor terms and conditions as there is already a competition for the very few job opportunities.
- (c) The wage rates are significantly high in Kerala in the unorganised sector activities such as 'atti-mari' (loading and unloading), field labour and certain skilled jobs such as carpentry, masonry, plumbing, etc. This is evident from the Table 5.24 given below, where the wage-rates in field labour and a skilled job such as carpentry in Kerala have been compared with those in 15 other states.
- (d) There is an acute shortage of man power for physical jobs such as field work, odd jobs at construction sites, etc. which is often compensated by the large number of immigrant workers from Tamil Nadu.

Table 5.24

Comparison of Average Daily Wages (in Rupees) of Field Labour (male) and Carpenters (1988-89)

Sl. No.	State	Type of Labour	
		Field labour/ (Annual average)	Carpenters (Annual average)
1.	Andhra Pradesh	14.70	24.55
2.	Assam	19.07	37.87
3.	Bihar	15.86	28.58
4.	Gujarat	16.40	39.38
5.	Haryana	27.69	49.17
6.	Himachal Pradesh	27.13	33.93
7.	Karnataka	13.46	24.65
8.	Kerala	27.47	49.80
9.	Madhya Pradesh	13.06	30.81
10.	Maharashtra	13.43	35.40
11.	Orissa	11.01	26.43
12.	Punjab	28.58	57.61
13.	Rajasthan	22.07	31.45
14.	Tamil Nadu	11.89	27.37
15.	Uttar Pradesh	15.71	32.88
16.	West Bengal	23.24	30.36

Source : Directorate of Economics and Statistics ,
Agricultural Wages in India 1988-89, Government of
 India, New-Delhi.

While the table gives somewhat an official average daily rate, the daily wage rates in vogue in 1995 in Kerala would be Rs.70 and Rs.95 for field labour and carpentry respectively. The high wages in skilled jobs in the unorganised sector has its impact on project cost and also in the maintenance

cost. However, the major problem in the unorganised sector is with the loading and unloading activity. Kerala, perhaps, may be the only place in the whole world where this activity which is popularly known as 'atti-mari' is carried out as a right of the working class. The head load workers, under the banner of different trade-unions, carve out areas of operation for themselves where workers from other activities and places have no right to load or unload materials, however small or big and irrespective of whether the material is a house-hold one or for commercial purpose. In reality, one has to pay a big price to become a member of such groups. Through an enquiry in a busy commercial area of Trivandrum, it was understood that a worker has to pay about Rs.70,000 for such a membership. The lucrative nature of this avocation is naturally implied in this practice. Though there are standard loading and unloading charges, what is uniformly being practised throughout the state is totally an ad hoc system of charges decided by the local head-load gang. This highly misused ad-hocism of the head load workers not only affect the operating costs but also creates lot of tension, worries and disruption of work. In fact, every time when a truck-load of material arrives, the entire drama of tension building, pressure tactics etc. are enacted as part of the negotiation strategy to get a better deal. The survey conducted among SSI units and their entrepreneurs had also revealed that they are generally satisfied with their own employees but are really concerned about this segment of the workers. The

unwritten rule in Kerala stipulates that even an internal worker should not do the loading and unloading job even within the factory premises as it is the prerogative of the head load workers.

5.4.7 Political stability

Development commences when new ideas originated within the society or brought in from elsewhere are put into practice. This would largely depend upon the political will and stability of the governments in power. In a democratic situation the political stability is in the hands of the people. In 1948, the first democratic ministry came into power in the southern most part of India, which is the present Kerala. Since then, this region had witnessed the rise and fall of short-lived ministries with spells of President's rule³³. With the result coalition governments with various permutations and combinations were tried out. After the formation of the present state of Kerala in 1956 it was the united communist party which came into power in April, 1957. This government was in power only till July, 1959. The next Government which came into power in February, 1960 was a coalition government of Praja Socialist Party (PSP) and Congress and was lead by Pattom Thanupillai. However, in September, 1962 Pattom Thanupillai resigned and the government continued till August, 1964 under the leadership of R.Shankar. Then again, from March, 1965 to March, 1967, Kerala had President's rule. From March, 1967 onwards it was the Commun-

ist Marxist Party (CPM) led ministry with E.M.Sankaran Namboodhiripad as the Chief Minister which ruled the state. This again, was a short-lived ministry ending its term in October, 1969. From November, 1969 to June, 1970 there was yet another short term government which was Communist Party of India (CPI) led one. Thus, till the seventies Kerala practically had the governments or at least the Chief Minister changing almost every two years. From October, 1970 till March, 1977 there was a stable Government of an united front. Though, in March 1977, Congress again came into power, its Chief Minister K.Karunakaran had to resign almost immediately in April, in the same year. The next Chief Minister, A.K.Antony stayed only for six months and the leadership was given to CPI's P.K.Vasudevan Nair, who again resigned in 1979. Then there was a non-communist government formed by the Muslim League, PSP and National Democratic Party with Congress support and led by C.H.Mohammed Koya. This Government hardly lasted for two months. From January, 1980 till October, 1981 there was another coalition government led by CPM's E.K.Nayanar and from December, 1981 to March, 1982 though Congress was again in power its Chief Minister, K.Karunakaran had to resign on account of a no confidence motion. From 1982-87, again K.Karunakaran of the Congress was in power for a full term of five years. Again in March, 1987 the Left Democratic Front came into power which lasted till 1991. In June, 1991 there was yet another change of political party with the Congress coming into power. This government again had a leadership change in 1995.³⁴

With such a track record of frequent changes of governments, political stability would be practically an unachievable precondition for any developmental activity in Kerala. It should also be noted that after the formation of the state of Kerala in 1956, many a time the state was ruled by a party which was not in power at the centre and the change from one party to another (or their coalition groups) occurred almost nine times in a period of about 37 years. Crores of rupees invested in various projects and also the expertise gained by the personnel on these projects have been wasted due to the reversal of policies which followed every change over.

Political instability, in fact, has a chain reaction jeopardizing the developmental efforts in a region. In the present administrative set up, political instability would necessarily mean a large scale reversal of policies and priorities thwarting the progress of many developmental projects. Unity of direction among the political parties in power, the bureaucracy and the society at large for a reasonably long period of time is essential to ensure the success of long-term developmental programmes. But this is one thing which is most affected by the frequent changes of governments in power, more so because of the fact that political instability also results in bureaucratic discontinuity. The failure of the pre-independent industrial developmental efforts to bear

fruits in the form of a strong industrial base with inter-industry linkages is better explained by this frequent changes of governments in power and the resultant reversal of policies and priorities and also the damage it has done to the unity of direction with regard to the developmental projects. Given the fact that in Kerala both the left and the right of the centre parties have a more or less balanced strength, political stability for long periods of time (as explained in the case of Singapore in Chapter 6) is almost unimaginable. Then the solution to the problem lies only in making the bureaucratic and administrative set up more apolitical. In other words, political instability shall be compensated with bureaucratic continuity. At the same time bureaucrats should be made responsible and accountable in ensuring the efficacy of the developmental programmes.

5.4.8 Trade Union activities

The trade union movement in Kerala is over 75 years old. The earliest attempt in organising labour took place in the coir industry in 1920 when the Travancore Labour Association (TLA) was formed at Alleppey³⁵. TLA was the first union to get registration under the Travancore Trade Unions Act of 1937 and was later renamed as Travancore Coir Factory Worker's Union (TCFWU). Soon, Trade Union movement spread to the farthest areas of productive activity in the state and established a kind of pervasive influence over all facets of

social life in Kerala. Though Kerala remained an industrially backward area, trade union movement in this part of the country struck out roots and spread throughout the state in a very short span of time, mostly based on the traditional sectors of coir, cashew, and plantation. Thus, by 1951-52 there were 555 registered trade unions in Travancore. This increased drastically to 1213 by 1957-58 and later on to 8244 by 1984-85 (Table 5.25). As of now Kerala represents about 20 per cent of the trade unions in India and the membership in these unions account for 7 per cent of total trade union membership in the country (Kerala has only about 3.5 per cent of the total population in the country). The growth in numbers of trade unions led to unhealthy competition, inter-union rivalry and division of the union movement. The industrial relations situation in Kerala up to 1966 was fairly good in terms of an analysis of the anatomy of industrial conflict.³⁶ The National Commission on Labour had commented highly of the trade union solidarity, democratic industrial relations practices and the nature of industrial relations culture that prevailed in Kerala. However, an analysis of the situation after 1966 presents a different picture. Organised labour in the state began to acquire a certain amount of notoriety with the character of its strike activity. This was reflected in the slogans they shout, threats, intimidation and muscle power they indulge in causing inconvenience to the public. The incidence of go slow, work-to-rule, short-

Table 5.25

Growth of Trade Unions in Kerala

Year	No. of registered Unions
1951-52	555
1952-53	568
1953-54	641
1954-55	767
1955-56	791
1956-57	584
1957-58	1,213
1958-59	1,538
1959-60	1,650
1960-61	1,815
1961-62	1,842
1962-63	1,680
1963-64	1,616
1964-65	1,731
1965-66	1,729
1966-67	2,047
1967-68	2,277
1968-69	2,571
1969-70	2,661
1970-71	2,492
1971-72	2,884
1972-73	3,337
1973-74	3,716
1974-75	4,073
1975-76	4,491
1976-77	5,552
1977-78	5,675
1978-79	6,110
1979-80	6,528
1980-81	6,936
1984-85	8,244

Source : Government of Kerala, *Kerala State Gazetteer*
Vol.3, 1989.

duration strikes and breach of settlements showed a rising trend. The media had also played a contributory role in maligning the image of trade unions in the state thereby imposing a heavy psychic cost on employers.³⁷

Though Kerala reported a loss of 10.57 million days in work-stoppages during 1959-69 and 15.70 million days during 1969-79, in recent times, the loss has considerably fallen. For instance, during 1980-84 the annual average time loss in Kerala was only 1.58 million man-days as against 11.10 million man days in West Bengal, 14.99 million days in Maharashtra and 3.13 million days in Tamil Nadu. During the period, the average time loss per 100 workers in organised industry was 435 for West Bengal, 443 for Maharashtra and 150 for Tamil Nadu, while it was only 148 days for Kerala and 167 for all-India. The point of importance is that the share of Kerala, in the total mandays lost, is declining rapidly. Mandays lost due to strikes in Kerala are also reported to be lower than that due to lockouts, lay-off and closure.

An analysis of the 'dispute frequency' (number of industrial disputes per one lakh of workers in the organised sector) in a selected few states from 1967 to 1985 (Table 5.26) revealed the following :

- (a) During the period from 1967 to 1974, the country as a whole had comparatively higher levels of industrial unrest. From 1975 to 1977, all forms of industrial disputes were suppressed by the internal emergency. After the emergency, though there was an upheaval of industrial disputes which later on gradually declined.
- (b) During the period from 1967 to 1974, Kerala gave a picture of highly strike prone area when compared to all the other states and also the all-India trend.
- (c) From 1977 to 1985, Kerala's dispute frequency drastically reduced and by 1985 it came to a level below the all-India figure. Among all the neighbouring states only Karnataka gave a better picture than Kerala. The dispute frequency in Andhra Pradesh had, in fact, escalated after 1977. Thus, Kerala recorded the minimum disputes frequency in 1985.

Table 5.26

Industrial Disputes Frequency 1966-85

Year	Kerala	Tamil Nadu	Karna- taka	Andhra Pradesh	Mahar- ashtra	Gujarat	West Bengal	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1967	40.64	16.71	14.23	11.03	32.33	13.39	19.97	16.94
1968	43.39	18.62	16.46	12.62	27.30	10.04	19.92	16.81
1969	34.41	13.83	22.12	15.63	26.48	7.78	18.58	15.62
1970	40.26	18.45	13.48	16.57	28.00	9.48	17.63	16.68
1971	38.59	21.09	12.25	10.81	27.12	13.08	13.79	15.60
1972	39.23	26.05	11.98	11.72	32.82	11.99	15.27	17.65
1973	24.10	15.57	11.54	14.57	24.99	16.36	17.34	17.65
1974	30.54	20.54	7.86	10.97	25.77	13.59	16.00	14.96
1977	19.60	18.78	8.77	9.14	18.10	13.84	19.19	14.87
1978	15.29	22.81	8.67	15.64	9.86	14.81	21.67	14.71
1979	13.81	18.77	6.12	25.47	8.59	17.50	15.87	13.59
1980	12.10	16.61	4.53	25.66	9.20	19.68	12.84	12.28
1981	10.13	15.75	3.07	19.23	9.41	17.41	9.54	10.91
1982	10.06	10.49	3.98	29.24	8.56	15.68	9.55	10.70
1983	6.43	11.72	4.96	36.54	8.33	14.02	10.83	10.01
1984	7.79	10.44	4.19	25.99	7.20	14.73	8.27	8.22
1985	5.68	10.16	3.97	14.29	6.13	13.00	8.51	6.83

Source : Indian Labour Journal, various issues.

The recent statistics in terms of 'man-days lost', 'No. of strikes', etc. shown in Table 5.27 revealed a pattern of ups and downs over the years. But, the question of whether the situation with regard to the industrial relations in Kerala is true or not may be less important than the overall perception of the entrepreneurs. As seen in Chapter 3, the entrepreneurs continue to differentiate Kerala from the other states on the aspect of labour attitude.

Table 5.27

Statistics Relating to Industrial Disputes in Kerala

Sl. No.	Description	Year				
		1986-87	1989-90	1991-92	1992-93	1993-94
1.	No. of disputes which led to :					
	(a) Strikes*	75	NA	41	43	47
	(b) Lockout	23	NA	29	29	31
	(c) Total	98	48	70	72	78
2.	No. of workers affected due to :					
	(a) Strikes	NA	NA	20409	115198	51209
	(b) Lockout	NA	NA	7243	10727	11885
	(c) Total	132912	64103	27652	125925	63094
3.	Mandays lost due to :					
	(a) Strikes	NA	NA	561747	1785205	518396
	(b) Lockout	NA	NA	975670	1098163	2105226
	(c) Total	2311000	1467000	1537417	2883368	2623622

Notes : * Including previous pending cases ; NA : Not available.

Source : State Planning Board, *Economic Review*, 1988 and 1994.

Study conducted by Oommen (1981) had pointed out that cheap labour and peaceful atmosphere were the most significant factors influencing entrepreneurs' decision for locating

their units outside Kerala.³⁸ Hence, even if there is prospects for high return due to availability of many resources, the entrepreneurs' perception of labour militancy in a region may influence his locational decision.

A comparison of the strikes and lockout and man days lost in different States as in 1983 depicted in Kerala Gazetteer (1989) showed a relatively better industrial relations position in Kerala. However, an estimate of the man-days lost (according to different reasons) in the State Public Sector manufacturing units revealed that in 1992-93 and 1993-94, strike, absenteeism and bandh accounted for 24 per cent and 25.8 per cent respectively. Power-cut accounted for only 7.4 per cent and 5.5 per cent respectively.³⁹ Therefore, there are confusing signals with regard to the labour scenario in Kerala.

In any case, locational decisions are not made only on a strict calculation of costs and returns. An enterprise, on the other hand, may place a great deal of emphasis on a peaceful industrial atmosphere. The influence of psychic costs and benefits on locational decisions are likely to be more for small-scale entrepreneurs as the small scale of their operations make them more vulnerable to strikes and other union activities. They also have only very little clout with political parties and government to take steps to combat labour agitations.

5.4.9 Changing size and Structure of the work-force

As mentioned in Chapter 1, the structure of labour force in an economy undergoes considerable changes during economic development over a period. As average national income rises, there is a proportionate shift of workers from agricultural to industrial employment. The share of the labour force in agriculture falls from 60-80 per cent to 10 per cent or below. The size of the service sector may remain more or less constant, but within the sector there is a transition to modern banking, commerce, transport, and government.⁴⁰ In this section the changing size and structure of the work force in Kerala between 1951 and 1991 shall be examined.

One of the features of developing economies, in comparison to developed economies, is that the work participation rate is much lower in developing regions than in developed regions. Between 1951 and 1991, the total work force in Kerala increased by 113.42 per cent from 4360 thousand lakhs to 9146 thousand lakhs as against an increase of 114.82 per cent in the total population from 13545 thousand to 29098 thousand as could be seen from Table 5.28. The work-participation rate in Kerala had been only 32.2 per cent in 1951, as against 39.1 per cent in India as a whole. Between 1951 and 1991, the work participation rate in Kerala declined marginally to 31.43 per cent. A gender wise look at this rate reveals that the male work participation rate declined from 46.7 in 1951 to 44.9 per cent in 1981 and female work participation rate

from 18.3 per cent in 1951 to 16.6 per cent in 1991 (see Table 5.13). The decline in the overall work participation rate in Kerala apparently is not a welcome change as it is indicative of growing unemployment and dependency among the population. The difference in the work participation rates, however, could be ascribed partly to the differences in the definition of work force from census to census. Nonetheless, the decline in the work participation rate is pointing towards the fact that the demand for labour grows less rapidly when compared to growth of population.

Table 5.28

Changes in the Distribution of work-force in Kerala :
(in thousand)

Industrial category	1951 Census	1981 Census	1991 Census
	Persons	(main & marginal) Persons	(main & marginal) Persons
Primary Sector	2391 (54.84)	4135 (53.2)	4321 (47.24)
Secondary sector	939 (21.54)	1510 (19.4)	1677 (18.34)
Tertiary sector	1030 (23.62)	2125 (27.4)	3148 (34.42)
Total workers	4360	7771	9146
Total population	13549	25454	29098
Work participation rate	32.2	30.5	31.43

Note : Figures in brackets are percentage to total workers.

Sources : 1. Directorate of Economics & Statistics, *Statistics for Planning* (various issues) and other interim publications.
2. Census of India, 1981 and 1991

The 1991 Census, however, revealed a reverse trend. Between 1981 and 1991, the total work participation rate has recorded a moderate increase from 30.5 percent to 31.43 percent. There has been an increase in male work participation rate from 44.9 percent to 47.58 percent, but a marginal decline in the female work participation rate from 16.6 per cent to 15.85 per cent. The moderate increase in the total work participation rate is thus due to the increase in male participation rate.

Changing composition of the work-force

The sectoral changes in the output together with the technology, in fact, determine the changes in the sectoral demand for labour. In other words, the changes in the sectoral composition of the output are accompanied by changes in the occupational structure of the work-force. The broad general classification of economic activities followed earlier as primary sector, secondary sector and tertiary sector could be followed to discuss the changes or shifts in the occupational structure of the labour-force. Table 5.28 gives the distribution of work-force by this broad sectoral classification between 1951 and 1991.

Hollis Chenery and Moises Syrquin held that "if all sectors had the same production functions, factor prices, and entry conditions, the changes in the pattern of employment would be expected to follow closely the pattern of structural changes

in output".⁴¹ They, however, observed "systematic differences between the two patterns". The general pattern of changes in the occupational structure with level of development is a rapidly declining primary share and a rising industrial share and tertiary share. The pattern of changes in the composition of labour force in Kerala economy between 1951 and 1991, as can be seen from Table 5.28 does not fully support this generally observed pattern. The proportion of workers in the primary sector declined from 54.84 per cent in 1951 to 47.24 per cent in 1991. But, the work-force in the secondary sector also declined from 21.54 per cent to 18.34 per cent during this period. As against this decline in the proportion of labour force in the primary and secondary sectors, the tertiary sector registered a substantial increase in its share of labour force from 23.62 per cent to 34.42 per cent between 1951 and 1991. This definite shift of labour force from the two producing sectors to the tertiary sector is the unique feature of the structural change in the labour force in Kerala and is not in conformity with the generally observed patterns as mentioned earlier. The decline in the overall work participation rate and in the proportion of work-force in the secondary sector indicate that (i) the development pattern of the economy was such that it could not absorb the growing labour force, (ii) there was no shift in the labour force from primary sector to secondary sector as is expected with economic development and (iii) the only sector where the growing labour force in the economy could be

absorbed was the tertiary sector. This is an unwelcome pattern of structural change. The work force in the primary, secondary and tertiary sectors registered an increase of 80.70 per cent, 78.60 per cent and 102.05 per cent as against 101.14 per cent increase in the population and 101.09 per cent in the total work force. Thus, both the primary and secondary sectors had a much less rapid growth of work-force than what the tertiary sector had. In other words, the productive sectors of the economy lagged behind the tertiary sector in providing employment for the growing labour force. This indeed is a paradoxical situation.

A further analysis of the detailed data not shown in Table 5.28 revealed that though the share of workers in the primary sector declined only marginally, there was a substantial decline in the proportion of cultivators in the primary sector from 23.15 per cent in 1951 to 12.27 per cent in 1991.⁴² This is indicative of a large number of cultivators leaving their occupation due to various reasons. The implementation of land reforms during the seventies and eighties and the increasing cost of cultivation could have partly contributed to this declining trend. This drastic decline was marginally compensated by the increase in the proportion of agricultural labourers from 25.9 per cent to 26.59 per cent.

To sum up, the structural changes in the work force between 1951 and 1991 are characterised by a decline in the proportion of workers in the primary and secondary sectors, and a

substantial increase in that of tertiary sector. Obviously, this is not the typical pattern of structural change in the labour force one expects to occur with economic development.

5.4.10 Migration of Keralites

As stated earlier, the exodus of Keralites to other parts of the country started in as early as 1931, primarily in search of employment opportunities. From the second half of the 1950s migration to the western countries such as the U.S.A, Europe and Africa began. Those who migrated were persons with high educational qualifications for employment in the fields of education, engineering and health care. Over the years, due to the strict controls enforced by those countries, this outflow was drastically reduced. Large scale migration, especially emigration of the unskilled and semi-skilled workers from Kerala began in the late 1960s when the Arab world was left open to emigrant workers to man their construction activities. With the oil price hike in 1973-74, the developmental activities in the Gulf countries could be augmented several folds. This, again, attracted large number of expatriates from several Asian countries, especially India and Pakistan. Keralites accounted for about 50 per cent of the migrant Indian population in the Gulf countries.⁴³

Several factors have been pointed out to have resulted in this large scale migration, some are 'push-factors' while some others are 'pull-factors'. As seen earlier the higher

educational and literacy levels coupled with very little local employment opportunities and the various other factors enunciated earlier made the push factor strong enough for mass exodus of Keralites. The pull factors were, of course, the higher income prospects. But, over the years the increasing competition from the migrants from other third world countries have made this pull factor almost unattractive as the wages and perks for majority of the skilled and unskilled jobs have been drastically reduced. But, the mounting unemployment, the general lack of entrepreneurial culture and the mass production of educated youth in Kerala continue to strengthen the push factor.

Remittances and Expenditure

The inflow of remittances from the Non-resident Keralites (NRK) into the state had been steadily increasing over the years. In a study conducted by Gopinathan Nair (1989)⁴⁴ the remittances from the Arab region alone over a period of 12 years was estimated as Rs.7215 crores (see Table 5.29). This estimation was done by taking 50 per cent of the remittances to India through the Bank channels as Kerala's share. The recent data pertaining to Kerala alone collected from the State Level Bankers Committee is given in Table 5.30. From the table it is clear that the percentage of Non - Resident External (NRE) deposits in the total Bank deposit in Kerala had been steadily increasing over the years. The NRE deposits were growing at an annual rate of about 28 per cent.

Table 5.29

Estimated Remittances from the Arab Region

Year	Remittances to India (Rs. crores)	Share of Kerala in Remittances (Rs. crores)
1975-76	132	66
1976-77	270	135
1977-78	487	243
1978-79	481	240
1979-80	790	395
1980-81	1,219	609
1981-82	1,098	549
1982-83	1,371	685
1983-84	1,500	750
1984-85	1,714	857
1985-86	1,628	814
1986-87	1,717	858
1987-88	2,028	1,014
Total	14,435	7,215

Source : Adapted from P.R.Gopinathan Nair, 'Incidence, Impact and Implications of Migration to the Middle East from Kerala' in Rashid Amjed (ed.), *To the Gulf and Back*, ILO, (ARTEP), New Delhi, 1989.

Table 5.30

Deposits in Kerala

Year	Total Deposit (Rs.in crores)	NRE Deposit	percentage of NRE in total deposit
1988-89	5666.7	1583.7	27.9
1989-90	6620.1	1918.7	29.0
1990-91	7857.7	2304.3	29.3
1991-92	9651.5	3039.0	31.5
Till Dec.1992 (9 months)	11233.0	3866.9	34.4
Dec.1992 - Dec.1993	13908.9	5584.5	40.2

Source : State Level Bankers Committee, Trivandrum.

Almost all the remittance receiving house-holds have improved their general standard of living and levels and quality of consumption of the people. Most of the emigrants have spent relatively large proportion of their savings in construction and renovation of buildings, purchase of landed property, purchase of vehicles and ornaments, etc.⁴⁵ The proportion of households which have made investments in business is relatively small. A survey made by the Government of Kerala in 1988 revealed the utilisation pattern of savings out of Gulf remittances in Kerala (Table 5.31). Figures in the table more or less validate the general impression that the NRKs spend bulk of their saving towards non-productive items. Investment in business was found to be a meagre 2.3%.

Table 5.31

Utilisation Pattern of Savings out of Gulf remittances
in Kerala (Average for the years from 1982 to 1986)

Item	Percentage
Purchase and investment on Land	20.8
Construction, improvement and purchase of building	36.7
Purchase of Vehicles	2.2
Purchase of Consumer Durables	1.7
Ornament and Jewellery	7.3
Education	6.4
Repayment of Loan	7.6
Financial Assistance to Relatives	1.9
Investment in Business	2.3
Deposit in Banks	7.2
Financial Investments	1.0
Others (Not Specified)	4.9

Source : Department of Economics & Statistics (1988),
Survey on the Utilisation of Gulf Remittances, 1988.

Economic impact of foreign remittances

The growth of the Domestic Product in Kerala from 1975-76 to 1989-90 was only 40 per cent as against the all-India growth of about 84 per cent during the same period. Thus, at the macro level, the impact of foreign remittances on the State income has been practically insignificant. In fact, the ranking of Kerala, in terms of per capita income, fell from 7 in 1975-76 to 9 in 1983-84 and to 14 in 1989-90 among the 17 major states in the country.⁴⁶ Studies have shown that remittances have gone mainly to sustain increasing levels of consumption, purchase of consumer durables, construction materials, etc., majority of which were imported from other states. Similarly, a larger portion of the deposits in the Banks in Kerala go to finance industries in other states. This is evident from the gradually declining Credit-Deposit Ratio (CD Ratio) of Bank funds in Kerala. The CD Ratio has gradually declined from 64.77 in 1988 to 41.73 per cent in 1994.⁴⁷ A state - wide survey conducted by the Government of Kerala had also revealed that the migrants have substantially improved their consumption standards, ownership of landed assets, value of house buildings and vehicles.⁴⁸ As almost all of the NRKs inevitably invested in landed property, the pressure on the already limited land area of this region became so much that the land prices have shot up several folds throughout the state. In fact, land has become the most secure and appreciating asset in this region.

Thus, the most direct outcome of the remittance is on consumption. Till the early 1970s consumption level in Kerala remained lower than the all-India average. Since then, it has steadily improved and by 1983-84 exceeded the national average. Latest estimates available indicate that the per capita food consumption levels in rural Kerala have become one of the highest among the Indian States and that only two States - Haryana and Punjab - which constitute the grain granary of the country - had higher levels. In the urban areas also, the levels in Kerala are higher than in all-India and in most other States⁴⁹. It was observed that the ratio of Consumption Expenditure to the State Domestic Product has been continuously on the increase and that it exceeded unity in 1986-87. This was possible obviously due to remittance incomes. The high qualitative standards of the dietary pattern of Kerala households have also been commendable. The qualitative improvement in dietary patterns has, in turn, increased Kerala's dependency on imported items such as vegetables, milk, eggs, and processed foods.

In general, apart from some employment generation in the tertiary sector, mostly in the travel industry, the remittances made by the Keralite emigrants have hardly been put to use for productive purposes which if done would have resulted in the growth of the economy of the region as well as large scale employment generation.

5.4.11 Survey among Non-Resident Keralites (NRK)

A quick survey was conducted to study the attitudes and investment plans of the NRKs, who represent a highly potential group of entrepreneurs, mainly considering their money power (see Chapter 3 for details about the survey methodology).

62.5% of the NRKs indicated that they have already invested in one house at their hometowns. 29% have made additional investment in real estate (house/flat/residential plot) at major cities like Cochin and Trivandrum in Kerala. 10.4% of them have invested in real estate in the metro cities of India. Majority of them own ancestral agricultural property. 21% have invested in cash crop plantations. Only 8.3% of the total number of NRKs surveyed have directly invested in industries, that too all of them having invested out side Kerala. One person had set up a project in Kerala about six years ago which had gone sick within one year after implementation. Another person had taken steps to set up a fish processing unit with an investment of about Rs.50 lakhs. According to him, he had to abandon the project due to various procedural delays, more so in obtaining institutional finance. All the 48 persons responded have investment in stocks, bank deposits, unit trust, etc.

On the question of what they would do on their return to India, 16.7% responded that they will engage in agricultural

activities on a full time basis. 25% have reported that they would set up service organisations. Another 25% expressed taste in trading activities. Only 12.5% expressed their inclination towards setting up industries.

With regard to the question on their confidence on the industrial scenario in Kerala, 73% said that they are not convinced about the industrial climate in the state. Majority consider that labour problems and power shortage as the major impediments for setting up industries in Kerala. 15 persons (31.3 per cent) were skeptical about bureaucratic and political interference. 27% of them indicated that there is the absence of an effective information and guidance system for identifying and implementing industrial ventures in Kerala.

Though, the sample size is too small, even the results of this survey show that people have not gained enough confidence in the overall industrial climate in the state. As stated earlier, majority of the NRKs are inclined towards investments with zero or very low risk factors. From the interactions with these NRKs during the survey, one thing has become certain. It is not the lack of money which prevents them from investing in industries. Majority of them sounded that even if they set up an industry, it will be outside Kerala as in the case of five others who already have direct investments in industries situated in other states. Through queries in somewhat indirect manner, it was understood that,

as such, the amassing of wealth primarily supports a growing menace of exorbitantly high dowry payments or capitation fee for higher education of their children. It was also inferred that the following aspects still prevail as impediments in attracting productive NRK investments.

- (a) Lack of general confidence in the overall industrial climate in Kerala.
- (b) People are worried about the high level of political consciousness and trade union activities.
- (c) The role of print media in politicising issues.
- (d) Lack of proper information and guidance system to woo and support potential entrepreneurs.
- (e) Political instability and unstable policies.
- (f) Lack of sufficient entrepreneurial qualities in the society or absence of role models.

Though, many of the aforementioned points are applicable to all those who are interested in setting up industries in Kerala, a few aspects have to be emphasised from an NRK's point of view. They are, the lack of a dependable Industrial Information System, procedural delays and apprehensions about political interference.

Many of the NRKs who would be returning to Kerala for good and planning to set up industries had indicated that they would be interested in completing at least the initial stages of the project implementation while they are abroad. This would mean that, in Kerala, there should be reliable information system and consultancy support to assist these NRKs in doing project scouting and other preliminary jobs during their visits on annual leaves. But, the state level organisations, both public and private, are found to be ill-equipped for the same. With the result, a potential entrepreneur may have to run from pillar to post for proper guidance. Any attempt to complete governmental formalities might teach him about the inordinate procedural delays. Therefore, unless at least the following steps are taken it may be difficult to attract NRKs towards productive investments.

- (a) Setting up a state level computerised Industrial Information Centre with links to national and international databases so as to provide updated information on technical know-how, policies, rules and regulations, market information, project profiles, sources of equipment, etc.
- (b) The state information centre shall publish news updates for dissemination of information to the NRKs through the NRI Economic Forums or the Indian Missions.
- (c) In 1992, the Industries department of the Kerala govern-

ment had mooted the idea of posting a liaison officer in one or two gulf countries with the idea of attracting NRK investments. This was subsequently abandoned. It is recommended that it would be worth setting up such an office with link to the Industrial Information Centre. NRKs should also be able to accomplish a part of the procedural formalities through this office. These liaison offices could be partially funded by the NRI Economic Forums or similar organisations in the respective countries.

- (d) Sufficient steps shall be taken to attract NRK investment in infrastructure development, especially in power generation.

5.4.12 Mobility of entrepreneurs

M.A. Oommen (1981), in his study on the mobility of small scale entrepreneurs from Kerala had drawn the following major conclusions.⁵⁰

- The exodus of Keralite entrepreneurs to Karnataka and Tamilnadu (the regions which were studied) was primarily an entrepreneurial phenomenon and did not show any specific pattern with respect to the industries set up by them.
- Majority of the entrepreneurs were graduates or post-graduates (mostly with technical background). About 25%

of them were unemployed before starting industries. Those who were industrialists earlier had shifted their units from Kerala.

- The general hypothesis that entrepreneurs with higher educational background are mobile was substantiated by the fact that about 48% of the entrepreneurs studied were either engineering graduates or diploma holders.
- Government financial institutions in Tamilnadu and Karnataka have taken much more positive approach in terms of speedy and sympathetic consideration of loans application.
- More than 50% of the employees in the units surveyed were Keralites.
- Most of the units studied were free from the influence of trade unions and was relatively free from stoppages due to strikes.
- The industrial estates in these places were almost a 'tailor made' site acceptable to the entrepreneurs.
- Labour cost broadly defined not only in terms of the wage and welfare cost, but inclusive of the loss and inconveniences due to strikes and disputes, appears to be an important criterion for selection of suitable locations.

From the above conclusions, it may be further argued that there is a general lack of a feeling of 'security' with regard to the setting up of industries in Kerala. This insecure feeling need not necessarily be one associated with labour militancy. It is often said that the initial developmental base more often than not decide the nature of further development. As explained earlier, in Kerala, the scene had been appropriately set for trading of its primary products without much value addition. Further, the nature of spreading of industrial activities right from the early stages (except a few units which were established at Cochin by the erstwhile Travancore regime) was not creating an environment of agglomeration. As on date, the lack of benefit of agglomeration is one of the reasons for the insecure feeling, mostly with regard to sourcing of machinery, spares and skilled service facilities, marketing, vendor development and so on. The overall effect is reflected on the social value system which, even now, foster a culture of salaried employment.

5.4.13 Looming Power crisis in the state

The economic status and living standard of the people of a nation is sometimes judged by the per capita consumption of electricity. The experience of industrially developed nations bears testimony to this aspect. If this yard stick is employed in the case of Kerala, yet another contradiction of higher standard of living with a poor per-capita consumption

of electricity would come to the surface. The present per capita consumption of electricity in Kerala is only 156.56 units (1989-90) which is second lowest in India; the lowest being that of Bihar while the all-India average (estimated) is about 221 units. The per capita electricity consumption of some of the states in India are illustrated in Table 5.32.

Table 5.32

Per capita power consumption (1988-89)

India	220.94 Units
Kerala	156.56 Units
Karnataka	237.41 Units
Andhra Pradesh	217.88 Units
Tamil Nadu	281.79 Units
Pondichery	519.04 Units

Source : CMIE, *Basic Statistics Relating to States of India*, September, 1994.

The surplus power availability, that too at cheaper rates was once a strong point of Kerala. In fact, despite the unfavourable socio-political environment during those days, a few entrepreneurs from other states had made industrial investments in Kerala taking into account this major advantage. Even now, the power tariff in Kerala is cheaper than that in other states, primarily due to hydel power generation. But, the problem lies in the acute scarcity of power with practically no ray of hope in the near future.

Kerala entered the era of electricity generation when the Kannan Devan company started hydel generation from Muthirapuzha river during 1900 A.D. for their commercial use. On the lines of this station, small diesel generating stations were set up at Trivandrum during 1929, Kottayam by 1932, Nagercoil and Quilon by 1934 and Kalamassery and Alwey by 1937, for distributing electricity to the public. Kerala's first hydel generating station for public needs was commissioned on 19-03-1940 in the erstwhile Travancore, with an installed capacity of 5 MW, which was subsequently increased to 15 MW by 1942 and finally to 37.5 MW by 1951.⁵¹

The installed capacity and annual generation capability of the state has grown from 38 MW and 151 MU of 1951 to 133 MW and 591 MU by 1961; 622 MW and 2510 MU by 1974; 1011.5 MW and 5119 MU by 1980 and 1476.5 MW and 5648 MU by 1991. The number of consumers have grown up from 0.28 lakhs of 1951 to 1.75 lakhs by 1961; 7.77 lakhs by 13.37 lakhs by 1980 and 34.5 lakhs by 1991.⁵² This shows that even though the number of consumers had increased 123 times by 1991, increase in power generation was only about 38 times of that of 1951.

As such, the total installed capacity of power generation in Kerala is 1503 MW which includes the 12 MW Maniyar Hydel Project commissioned in June 1995. In fact, all the 12 pro-

jects in operation in Kerala are hydel projects. The maximum achievable level of operation is about 1250 MW. Except Mani-
yar and Edamalayar projects, all the other generation sta-
tions are at least two decades old (see Table 5.33). Many of
the projects have been completed with inordinate delay.
Construction works of the 180 MW Lower Periyar Project start-
ed in 1983 and the 50 MW Kakkad project started in the year
1978 are yet to be completed. The Kallada project, the con-
struction of which was begun in 1956 could complete only its
first phase.

Table 5.33

Age of the Power Stations in Kerala

Project	Installed capacity (MW)	Year of Commissioning of generators	Age
Pallivasal	37.5	1940-51	55-44
Chenkulam	48	1954-55	41-40
Peringalkuthu	32	1957-60	38-35
Neriyamangalam	45	1961-63	34-32
Panniyar	30	1963-64	32-31
Sholayar	54	1966-68	29-27
Sabarigiri	300	1966-67	29-28
Kutyadi	75	1972	23
Idukki	780	1976-86	19-9
Idamalayar	75	1987	8
Kallada	under progress	1956	39

Sources : 1. Kerala State Electricity Board,
Published and Unpublished documents.

2. Government of Kerala, *Kerala State Gazetteer*,
Vol.3, 1989.

Apart from internal generation, the state is receiving its share from the Central Power Stations of Ramagundam Super Thermal Power Plant, Madras Atomic Power Plant and Neyveli Lignite Corporation. Though Kerala is eligible to draw 450 MW from the central grid, due to the geographical remoteness of this state, the power producing states supplying to the grid can easily eat into this share. With the result, Kerala gets only about 60-65 per cent of its share from the central grid.

Though the industrial development of this region is taking place only at a low pace, the number of applicants for house connections is about 600 per day. Due to the widening gap between demand and supply, Kerala State Electricity Board (KSEB) has been enforcing power cuts and resorting to load shedding since 1989 when Kerala faced the worst power crisis ever. Also, there are high transmission and distribution losses in the sector. Statistics relating to generation, demand and supply of power projected till 2000 AD is shown in Table 5.34 which shows that by 2005 the supply of power in Kerala would be less than 50 per cent of the demand unless drastic measures are taken to solve the power crisis.

Table 5.34

Supply and Demand for Power in Kerala State

Year	Energy Demand (MU)	Expected Supply including likely additions (MU)	percentage availability
1991	7960	*5075	64
1992	8979	*5679	63
1995	12833	8919	69.5
1996	14096	11144	79.05
1997	15316	12114	79.09
1998	16890	12114	71.72
2000	20395	12114	59.39
2005	34268	16416	47.90

* Actuals

Sources : 1. Kerala State Electricity Board,
Power System Statistics.

2. KITCO, *Industrial Potential Survey Reports,*
1992-1993 .

Present Power crisis

In order to maintain some respectability in distribution of power, KSEB has been resorting to power cuts. But the economic implication has been very great. It has resulted in loss of production, productivity, state revenues, value addition and employment. Details regarding power cuts in the State since 1989 are shown in Table 5.35.

Table 5.35

Details of Power cuts in Kerala

Sl. No.	Period	Power cut for HT/EHT consumers
1.	01-04-1989 to 30-04-89	40%
2.	01-05-1989 to 31-05-89	60%
3.	01-06-1989 to 15-06-89	100%
4.	16-06-1989 to 30-06-89	40% for HT, 100% for EHT
5.	01-07-1989 to 31-07-89	60% for EHT
6.	01-08-1989	withdrawn
7.	1992	Powercut again enforced

Source : Kerala State Electricity Board.

In addition to the low generation of power, there is also high transmission and distribution losses in the power sector. Statistics relating to transmission losses are given in Table- 5.36.

Table 5.36

Transmission and Distribution losses

Sl.No.	Description	Percentage	Equivalent MU
1.	As on 31.3.1989	24.18	1100
2.	As on 31.3.1990	22.10	1255

Source : Kerala State Electricity Board.

Kerala is experiencing severe low voltage problems throughout the state except a few important localities, during peak load hours. This is severe in Malabar area, which has no major generating stations other than Kuttiadi (75 MW, 248 MU) and is constrained to get power through the sole single circuit 220 kV line from Iduki, which is supposed to carry only 130 MW, but usually loaded up to 160 MW. The low voltage in the state is mainly due to the limitations in the installed capacity, lack of adequate reactive compensation, and inadequacies in the transmission and distribution networks. The peak demand of the state with the present low voltage conditions is 1271.6 MW during 1990-91 and 1308.8 MW during 1991-92. This would have been around 1700 MW for 1991-92, if the prevailing low voltage problems had been solved. The low voltage contributed lesser energy consumption also. Even though the state has an installed capacity of 1476.5 MW, the total machine capacity available for meeting the peak demand is around 980 MW, after deducting provisions for annual or routine maintenance and other reserves. The capacity share being received from the central sector power stations comes in the range of 160 to 190 MW only during peak load hours, even though this ranges from 250 to 350 MW during off-peak hours, while the entitled capacity share is 450.375 MW.⁵³

The above analyses show the dismal picture of the power availability in the state. This would be one of the major impediments to the industrial and general economic develop-

ment of this region. The following are found to be the root causes for this pathetic plight.

- (a) The over-dependence on hydel projects.
- (b) Non availability of energy raw-materials such as coal within the state and inadequate transport facilities for bulk handling of coal from far-off places. About half the length of main railway line within the state is even now single line.
- (c) Lack of political will and over-all bureaucratic lethargy resulting in lack of proper futuristic planning. For the same reason, inordinate delays in completing projects.
- (d) Scarcity of land
- (e) Scarcity of funds with the State Government
- (f) Delay in sanctions from Central Government Agencies
- (g) Lastly and the most important is the absence of an integrated approach whereby the Electricity Board join hands with say, Industries or any other department engaged in developing the productive sectors. This has resulted in the absence of any meaningful long-term plans with regard to the energy requirements for the state-as-a-whole.

As such, KSEB has the following proposals to augment the power supply. As a short-term measure, the KSEB has proposed the establishing of diesel/combined cycle projects at Kozhikode/Vadakara (120 MW, 642 MU), Kasargode (60 MW, 321 MU) and Brahmapuram (100 MW, 535 MU). As long term measures, KSEB has proposed Pooyamkutty (240 MW, 644 MU), Athirappally (160 MW, 364 MU) and other medium and small hydel schemes, Gas-based station at Vyppin (1200 MW, 6420 MU) and a Super Thermal Power Station at Thrikkarippur (2920/3000 MW, 15622 MU). The first stage (2x210 MW) of the proposed Super Thermal Power Station at Kayamkulam (2420 MW, 12947 MU) being implemented by NTPC is expected to be commissioned by 1996. The KSEB is also exploring the possibilities of establishing a Nuclear Power Station of 1000 MW at a suitable location with the help of the Nuclear Power Corporation. The ongoing projects of Lower Periyar (180 MW, 493 MU), Kakkad (50 MW, 262MU), and other small/mini hydel projects and share from the Kayamkulam Super Thermal Power Station may not be enough to meet the future demands.⁵⁴ Unless all of the projects proposed by the KSEB materialises in the scheduled periods of commissioning, the state will have to face serious power and demand cuts.

5.5 Other region - specific problems

Some of the other peculiar regional characteristics of Kerala which influence the success of any industrial development effort are discussed below.

Geographical remoteness

As stated earlier, this part of the country faces a geographical alienation within the country. This is reflected not only in terms of agro-climatic conditions, but also in terms of social features. Analysis of the situation prior to and also after independence have revealed that Kerala had not fallen in line with the developmental path the rest of the country had taken. The commercial linkage which Kerala could establish with the rest of the country was largely as a supplier of certain primary produces and as a highly potential consumer market. The geographical remoteness of Kerala from the major business and industrial centres of the country has proven to be highly disadvantageous to the state. This has resulted in heavy costs of transportation of raw materials into the state and distribution of finished goods outside the state. As this state is deficient in certain primary raw materials such as coal, iron ore, bauxite, etc. those sectors of industry using these raw materials are definitely at a disadvantage. Other specific problems associated with geographical remoteness have been explained earlier.

Locational disadvantage has also resulted in the state being alienated from the hustle and bustle of trade and economic activities taking place within the country. Thus, the state is also isolated from vital market information, a system for which is automatically created in many other states posi-

tioned amidst trade and business transactions. For the very same reason, the state's link with the national marketing and distribution network is also ineffective to support the SSI sector.

Insularity and Information gap

As pointed out earlier, in many of the industrially advanced states in the country, an information system on a variety of things is often created outside the government organisational frame work. This was not the case with Kerala which is geographically isolated within the country. For the very same reason, this state had been remaining aloof from not only the major economic activities in the country but also from the various social turmoils which the country had faced. For all practical purposes, a Keralite entrepreneur would face more problems in getting a first hand information or even participating in an exchange programme, trade fair or anything of that sort which normally takes place in the capital city of New-Delhi which is almost at the other end of the country. A Keralite entrepreneur would be spending more money and energy to partake in such activities and also to source informations from government and foreign agencies when compared to

his counter-parts in the northern states or even the other southern states such as Karnataka, Tamil Nadu or Andhra Pradesh. This may not be totally applicable to an entrepreneur in the large sector. But those in the small sector are definitely at a disadvantage. Thus, information becomes either costly to them or a belated one. The overall exposure to the new developments would also be poor. As such, much of Kerala's foreign trade links are through the metropolitan cities like Bombay and Madras, which is, in fact, not a necessity. One way out of this predicament is to have direct trade and commerce links with other countries exploiting Kerala's strategic location in the Arabia sea. Here, it may be noted that Kerala's trade links with other countries especially the Arab countries which was active since about 3000 BC gradually faded away when this region had to function within the constraints of a regulated economy as part of a large political entity. While the trade links with the external world was gradually fading away, due to various socio-political reasons as explained earlier, this region also failed to merge with the overall economic trend in the Indian peninsula. But, now that the Indian economy has been drastically de-regulated the kind of business tie-ups which this region had earlier could very well be reinstated in a better fashion. This is somewhat easier in the case of Kerala with its large number of migrants spread all over the world. With such an approach Kerala could either value-add on indig-

enously available raw materials or even import raw materials, add value and export. Here, what is important is to focus on low volume-high value addition processes and products or high-tech products. This drastic change in the overall developmental approach, however, demands government intervention with long term plans, unity of direction and political commitment. Such an approach would also mean putting an end to the blind copying of other states or national level generalised models of development.

Selection and procurement of machinery and equipment

More often than not, selection of machinery and equipment becomes an herculean task for a Kerala based entrepreneur. This is essentially due to the basic problems of the state, many of which have already been discussed. However, for clarity, the reasons shall be summarised as follows.

There are only a very few machinery manufacturers within the state. Procuring equipment from far off places not only increases the cost of equipment but also the ordering costs. But, more than that, the actual inspection of the equipment, ascertaining its quality and even identifying the right vendor are time consuming and more often inadequate. Though, many manufacturers have Kerala based dealers or commission agents, these local representatives are ill-equipped to provide the right information and service support to the buyers. While this may not be the case with highly reputed

manufacturers' products, it is very much true in the case of those suppliers who generally cater to the needs of SSI sector. It should be concluded that, here again, the geographical remoteness of the state and its existing low level of industrial activity are the root causes for the situation.

This situation is more severe for medium and large scale industries which have lot of bought-out components and spares. For instance, Kerala Automobiles Ltd., a public sector company making three wheelers, get their body made from a North Indian town and majority of their component and spares requirement are also met by vendors from other states. Their attempts to develop local vendors including ancillarisation was not successful. Essentially, this is typically a 'chicken first or egg first (?)' situation pointing to the lack of the benefit of an agglomeration of inter-linked industrial activities.

5.6 Summarising the Strengths and Weaknesses of Kerala

As discussed elsewhere in the report, except for the scarcity of land and the peculiar feature of small land holdings, Kerala offers an excellent environment for developing agro-based and fisheries related activities. The nature's gift to the state is abundant. It enjoys both south-west and north-east monsoons, with an average annual rain fall of about 3000

mm. The large number of swift flowing rivers, rivulets and streams, having regular flow of water, provide the state with adequate clean surface water during most part of the year. Kerala is endowed with five per cent of India's total water potential. With plenty of rain fall and an average temperature of about 90°F, the state has a moderate climate. The agro-climatic conditions are most suitable for the thick growth of a variety of vegetation, consisting of a good number of food crops, a large number of long standing fruit bearing tree crops like coconut, jack fruit, mango etc., and also high value-yielding plantation crops like tea, coffee, rubber and cashew, as well as spices like pepper, ginger and cardamom. This unique cropping pattern has contributed basically to two things - one, the state had never faced, in its history, any serious famine as in other parts of India and two, the state came into regular direct contact with the outside world, with its commercial trade of spices from as early as 3000 B.C. Probably, Kerala is the first state in India which opened up and established a commercial, cultural and religious link with the out-side world. This was made possible by the advantage the state had in regard to its geographical location in the Arabian sea, and natural agro-climatic conditions. Kerala is already producing large quantities of natural rubber, spices and certain varieties of fruits and other agricultural produces. The land and climate are highly suitable for flori-culture, tissue culture, sericulture, etc. Probably, what is required is to strengthen

these new areas of agro-based activities. In this background, based on the earlier analyses, an attempt is being made to do a SWOT analysis of Kerala from the point of view of industrial development.

Strengths

- a) Kerala has educated, trained and enriched human resources. The state has the highest literacy rate among all the states in the country. People with post-school education constitute a significant proportion of the unemployed youth. Kerala has also produced large number of highly competent professionals, majority of whom are at present employed in different parts of the world.
- b) Keralites - both men and women - working both within and outside Kerala have demonstrated high aptitude and skill in their areas of work and adaptability to their environment.
- c) Kerala, probably has the highest Physical Quality of Life Index (PQLI) in the country and has an excellent social infrastructure including schools, colleges, hospitals, banks, post offices, etc.
- d) The entire state of Kerala is well connected through an extensive network of roads. Though not much used now, Kerala also has a network of canals which could be converted into usable waterways for commercial and

tourism purposes. The State also has a railway line through its entire length.

- e) Kerala is strategically located in the Indian ocean for developing direct trade links with the rest of the world. Cochin port could, in fact, become an attractive destination in the international sea route.
- f) With its lengthy coast-line, Kerala also provides ample scope for developing container terminals and fishing harbours.
- g) The state is the major producer of commercial agricultural crops. Kerala produces 93% of India's rubber, 70% of coconuts, 60% of tapioca and almost 100% of lemon grass oil. It is also the single largest producer of banana and ginger, besides tea and coffee in abundance.
- h) Kerala is one continuum where there is no rural/urban divide as the boundaries merge with remarkable ease.
- i) Kerala is one large homogeneous consumer market consisting of 29 million people.
- j) Kerala has a strong background of traditional commodity exports.
- k) Significant and steady inflow of foreign exchange remittance by non-resident Keralites.

- l) Pollution and dust free environment due to rich and thick vegetation.
- m) Plentiful supply of water from its various rivers and rivulets, backwaters and seasonal rainfalls.
- n) Picturesque land and evergreen forests.

Weaknesses

- a) Absence of primary industrial and energy raw materials such as iron ore, bauxite, coal, crude oil, etc. which would normally lead to the establishment of large industries in core sectors and would facilitate the evolution of an industrial culture.
- b) Geographical remoteness within the country.
- c) Limited land area, high density of population and spatially dispersed human settlement pattern, which has resulted in acute scarcity of land for industrial purposes and also pose more problems with regard to pollution control.
- d) Unlike other states like Gujarat, Tamil Nadu, Maharashtra, etc. Kerala has not had a strong traditional entrepreneurial class. This has also resulted in the absence of sufficient successful role models in the society to attract the younger generation into entrepreneurial activities.

- e) Total dependence on hydel power and ever increasing power shortage. The availability of cheap hydro-electric power was once a major strength of Kerala. But, over the years, due to growth in consumption, the vagaries of monsoon and delays in sanctioning and creating additional generating capacity through thermal stations have brought the state into a situation of looming power crises. Added to this is the problem of high transmission and distribution losses. All these have culminated in power cuts, load shedding and poor quality power.
- f) Lack of sufficient central investments especially in the early plan periods and the limited number of large industries, the presence of which would have spawned smaller units in large numbers.
- g) Multiplicity of trade unions and over emphasised trade union activities. Heavy loading and unloading charges and unrealistic practices in this activity.
- h) Unfavourable image and investors' phobia about 'Kerala labour' and consequent reluctance on the part of outsiders to invest in the state.
- i) Lack of political stability and unity of direction in developmental approach and unstable policies and priorities.
- j) Lack of sufficient resources with the State Government

- k) Educated youth in Kerala prefer salaried jobs to self employment.
- l) Lack of proper industrial information and guidance mechanism.

Opportunities

- a) The long coastlines and backwaters provide ample opportunities for promoting fisheries and related industries. This also facilitates promotion of tourism.
- b) The abundance of raw materials such as rubber, spices, coconut and coir, mineral sands, china clay, etc. provide a strong base for high value addition aimed at both the domestic and export market.
- c) The large and unified Indian market facilitates mobility of entrepreneurs from one state to another. Kerala's high physical quality of life and good social infrastructure could attract Indian and multi-national business houses into this state provided right and friendly policies are pursued not only by the government in power but also by the political parties functioning in the state.
- d) The opportunity to attract some of the highly skilled, qualified and experienced Keralite professionals, especially in the fields of engineering and medicine, who

are at present employed in different parts of the country and also abroad due to lack of sufficient opportunities and also the absence of good industrial climate in their home state.

Threats

- a) Steady migration of investment and industries from Kerala to neighbouring states in search of industrial peace, governmental assistance and uniform and steady policies and also to enjoy the benefit of agglomeration.
- b) Aggressive industrialisation policies of other states.
- c) Creation of unacceptable pollutants in water and air by the proposed industries can be a health hazard in a highly densely populated region like Kerala.
- d) Possibility of creating an ecological imbalance affecting the lushness and greenery of Kerala.
- e) If adequate power at its rated voltage cannot be provided, all the developmental efforts will be jeopardised.
- f) If a proper investment climate is not provided, the capital might get diverted and get sunk in unproductive assets.

5.7 Conclusions

Kerala, a tiny strip of land in the southern coastal belt of the Indian sub continent has many peculiar features compared to the other states in the country. Kerala is one region which has a high level of physical quality of life with a relatively low per capita income. On many aspects such as geographical features, location, climatic conditions, and social development, this region also faces a kind of insularity within the political entity of India. While this region do not possess many conventional industrial and energy raw materials, the abundance of certain unique resources had helped this region to commercialise agriculture and play an active role in international trade and transactions even in the 18th century. But, this early commercialisation of agriculture and the establishment of international trade links resulted only in two economic activities viz; trading and banking. Even the two traditional industrial sectors of coir and cashew existed in a highly decentralised manner. In fact, it could also be said that the initial industrial base, which was sharply focused on one or two traditional agro-based sectors and with limited scope for value addition and inter-industry linkages, itself could be a specific regional characteristic when viewed from a post-independent national perspective.

All said and done, one of the major impediments which Kerala had faced for any productive economic activity had been the

scarcity of land, be it for modernising agriculture or for setting up large industrial units. Added to this was the dispersed human settlement pattern totally different from what is seen in the rest of the country. These aspects and a variety of other region-specific factors such as ecological constraints, geographical position, etc., when viewed from the angle of industrial development, highlight a set of regional characteristics somewhat different from those of other regions in the country.

Even during the princely regime, this region had been emphasising on social development through large scale education and health care facilities. Development of education became easier with the arrival of Christian missionaries who were, in turn, supported by the government. But, this wide spread education practically ended up only in enabling the local population to migrate to other parts of the country and the world and get employed there, instead of participating in productive wealth creation within the state. This phenomenon resulted in large scale remittances from Non-Resident Keralites which relieved the Kerala society from the usual economic pressures to indulge in productive activities to improve their standard of living. Therefore, though the per-capita income was less than the national average, Kerala remained as a consumption oriented state mostly depending on the remittances from the Gulf Countries. The wide spread education had also resulted in alienating a sizable number of

youngsters from those traditional sectors in which their ancestors have been gainfully employed. The alarming share of Kerala in the total unemployed population of the country and the gradually declining work-participation rate in Kerala points to the overall ineffectiveness of the education system. In other words, the burgeoning number of educated youth at different levels in Kerala is simply the result of a chain reaction of an education without specific objectives in accordance with the economic needs arising in the society. In such a situation, the wide spread education in Kerala may be seen as unemployment in disguise. Such an educational system might do more harm than good. By imparting purposeless qualifications, the natural process of individuals turning to entrepreneurial careers to make a living have been adversely affected as the individual will be caught in a dilemma of unclear career options. These findings support the argument that the welfare oriented developmental approach emphasising on education has not contributed much in directing the human resources to the productive sectors of the economy.

The 'money-order' economy coupled with almost an equitable distribution of land would have made individual families more or less self-sufficient. This, in turn, would have reduced the usual economic pressures for engaging in productive pursuits, thereby adding another dimension to the social factor with regard to industrialisation. In fact, as of now, this may also be considered as a region-specific factor.

Yet another peculiar regional problem of Kerala was the high incidence of political instability. This often resulted in reversal of policies and priorities and bureaucratic discontinuity at key positions. Added to this was the proliferation of trade unions and their activities. The militant practices of 'head load' workers, the high wage-cost in the unorganised sector and the shortage of workers for manual labour are peculiar problems in the labour scenario of Kerala.

The looming power crisis in Kerala, coupled with regional limitations in terms of land and availability of energy raw-materials still remains as a major impediment to the industrialisation of this region.

While many of the aforesaid problems associated with this region have been detrimental to the industrialisation of Kerala, it may also be said that there was an overall failure in recognising and exploiting the unique strengths of this region, viz; the rich flora and fauna, excellent agro-climatic conditions, abundance in the production of cash crops, the strategic location in the Indian ocean, the early trade links with other countries, the unique human capital formation, and good physical quality of life. Considering these unique features of this tiny strip of land, it may be even necessary to evolve region-specific development strategies which are different from the generalised national level development approaches.

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Chapter 6

A HOLISTIC APPROACH TO THE INDUSTRIALISATION OF KERALA

6.1 Introduction

With the analyses so far done, it is possible to make a lengthy list of multifarious reasons which would have contributed to the industrial backwardness of the State of Kerala. Some of them are: (a) the initial developmental base built up during the colonial rule which emphasised on plantation crops; (b) the resultant low level of industrial activity; (c) the over emphasis given to social development (welfare) right from the period of the Princely State regime; (d) the failure to capitalise on the medium and large scale enterprises set up during the period from 1936 to 1947 to create backward and forward linkages, especially after the formation of the State of Kerala; (e) the lack of adequate central investments when compared to other regions in the country; (f) over-emphasised trade-union activities and pro-labour attitude especially on matters related to traditional industrial sectors; (g) failure to modernise traditional industries; (h) absence of clear signs of political will and commitment to strengthen the productive sectors; (i) frequent

changes of government and resultant shifts in policies and priorities; (j) failure to manage SLPEs as profitable commercial establishments; (k) peculiar regional characteristics such as scarcity of land, geographical alienation from the rest of the country, lack of primary industrial raw materials, ecological constraints, etc.; (l) increasing wages in the unorganised sectors and militancy of the loading and unloading workers; (m) social development through ill - conceived educational policies which resulted in churning out large number of youth with general educational background who flock to white collar jobs; (n) the attainment of higher levels of education even in the early periods of the twentieth century which enabled the people of this region to migrate to other major cities in India and also to other countries and the resultant 'money-order' economy; (o) 'money-order' economy coupled with almost an equitable distribution of land which made individual families more or less self-sufficient (though this highly socialistic pattern was not providing enough scope for large scale productive activities); (p) the overall effect of the aforesaid factors which resulted in the society losing entrepreneurial traits; and (q) the looming power crisis with almost no sign of any real solution.

Of the above, certain factors would have definitely played more significant a role than the others. But a coincidence of many of these factors or a combination of some of these fact-

ors would have kept the overall environment non-conducive for entrepreneurial activities, when compared to many other states in the country. These reasons could be grouped under major heads indicating the critical causes or factors responsible for the present state of affairs. In this chapter, what is being attempted is to focus on those critical factors with a view to either find solutions or to take deviations from the conventional approach. While attempting to do so the emphasis will be on evolving a multi-pronged or holistic approach which would provide sustainable development to this region.

6.2 The Methodology

The methodology adopted in evolving a holistic approach is primarily based on the *Causes* and *Effects* identified by the analyses done on the existing industrial scenario, the performance and growth of industries, the early developmental approach and the specific regional characteristics related to Kerala. 'Effects' indicate the features of the present state of industrial development in Kerala, and the 'Causes' indicate the reasons which have been identified through the analyses done in the earlier chapters. In other words, 'effect' means the end result and 'cause' means an element or factor which may influence the effect. A 'throw-back' approach is then employed by using the popular Management diagnostic technique of 'Cause and Effect' diagrams with a

view to link the 'causes' or factors that have so far influenced the industrial development of this region with the 'effects'. It may be noted that there is a general convention in Management parlance that a brainstorming session should precede the preparation of Cause and Effect diagrams. In this thesis, this convention is being deliberately violated with a view to extend the application of this highly useful Management tool to draw vivid conclusions in a usable form based on the systematic analysis done using other research techniques. Therefore, it is also assumed that the systematic research and analysis done using usual statistical and other techniques by themselves would be as good as brainstorming session and may be even more logical and complete.

Linking the Effects and Causes

Chapters two to four have been largely focusing on the present state of industrial and general economic scenario in the state and was specifically aimed at focusing on the effects of the earlier socio-economic environment and developmental efforts. This was important as any further modification in the developmental approach was possible only if the existing industrial base and other economic features are known. Subsequently, through a historical analysis and also through primary surveys the *causes* of these *effects* were identified. This automatically takes care of establishing one to one link between the causes and effects, but more in a descriptive manner. In order to obtain a holistic picture, and also to

fine tune the analysis, 'Cause and Effect' diagrams have been resorted to.

In the following analysis and modifications it may be noted that several causative factors would have worked in harmony to create a specific effect. These *causes and effects* could be either very significant and major ones or very trivial ones too. While it was essential to address to each and every problem, in order to have a focus on the major issues, the major effects and causes were selected for further pictorial analyses. Some causes may be common to a variety of effects. Such causes may be identified as the 'Major (critical) Factors' that would influence further development of this region.

Solution Diagrams

Having identified the major causes or the factors the next step was to propose the solution diagrams. As an interim step a matrix of 'Major factors' and 'Solutions' was made. Here, the effort was to segregate and focus on those problems which could be solved and those which demands deviation from the conventional approach. Subsequently, the solutions have also been suggested in descriptive form.

Analysis of Perceptual Factors

Simultaneous to the aforesaid exercise, based on the critical factors identified, a survey was conducted among entrepreneur-

rs who are sufficiently mobile in terms of establishing their units in any of the four southern states viz; Kerala, Karnataka, Tamil Nadu and Andhra Pradesh. Their perception about Kerala as an industrial destination in terms of the critical factors and in comparison to the other three states were recorded. Based on this, an analysis was done with a view to assess entrepreneurial perception about Kerala as an industrial destination (see 3.6 in Chapter - 3).

6.3 The major *Effects*

Based on the analyses done in Chapters two to four the following significant features or the *effects* in the industrial scenario in Kerala have been identified.

- a) Limited large and medium scale industries, many of them being sick state public sector enterprises.
- b) Weak industrial base in the small-sector
 - Low capacity utilisation.
 - Low technology
 - Low investment
 - Limited inter-industry linkages
 - Weakening traditional sectors
- c) Poor entrepreneurial climate
 - Society prefers salaried jobs
 - Investments in unproductive assets
 - Fear of labour
 - Tendency to migrate to other states and Gulf countries
 - Even the Non-resident Keralites continue to invest only in unproductive assets within Kerala.
 - Lack of confidence in Kerala as an Industrial destination.

6.4 Critical factors or *Causes*

A systematic recording of the findings of the analyses so far done was carried out using the Cause and Effect (Fish-bone) diagrams. These Cause and Effect diagrams have been classified into Problem Diagrams and Solution Diagrams. While the Problem Diagrams (Figures 6.1 to 6.3) give the present state of affairs, the solution diagrams (Figures 6.4 to 6.7) depict the proposed developmental approach.

The most frequently occurring factors or causes which have figured in these diagrams have been identified as the Major (critical) factors which would largely influence the further industrial development of this region. The critical factors which were thus identified are the following:

A. Critical inherent or root factors

- (a) Availability of land
- (b) Environmental and ecological conditions
- (c) The type of raw materials and other natural resources locally available.
- (d) Other (region-specific) resources

B Critical man-made factors

- (a) Initial developmental process (initial conditions) and the existing industrial base.
- (b) Political stability and government support
- (c) Labour relations
- (d) Capital availability

(e) Energy (power) availability

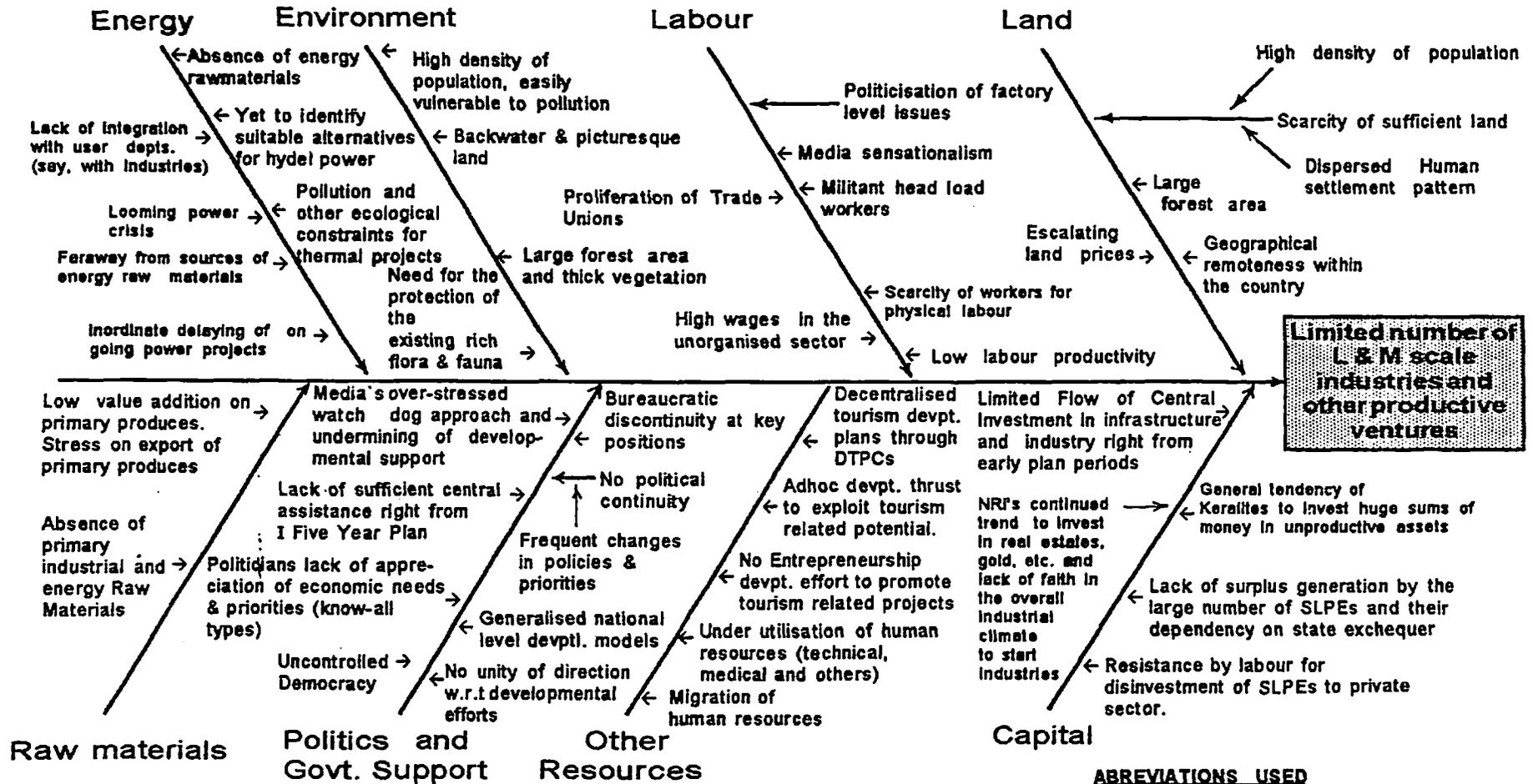
(f) Social value systems and education

Almost parallel to this exercise an attempt was done to segregate the various elements of the major causative factors into those which could be *managed or solved* and those which demands *deviation* from the conventional industrial development approaches which could have been a success elsewhere. (see Table 6.1) Subsequently, considering these two aspects of any element of the causative factors, detailed solution diagrams were made as shown in Figures 6.4 to 6.7.

Fig 6.1

PROBLEM DIAGRAM - P₁

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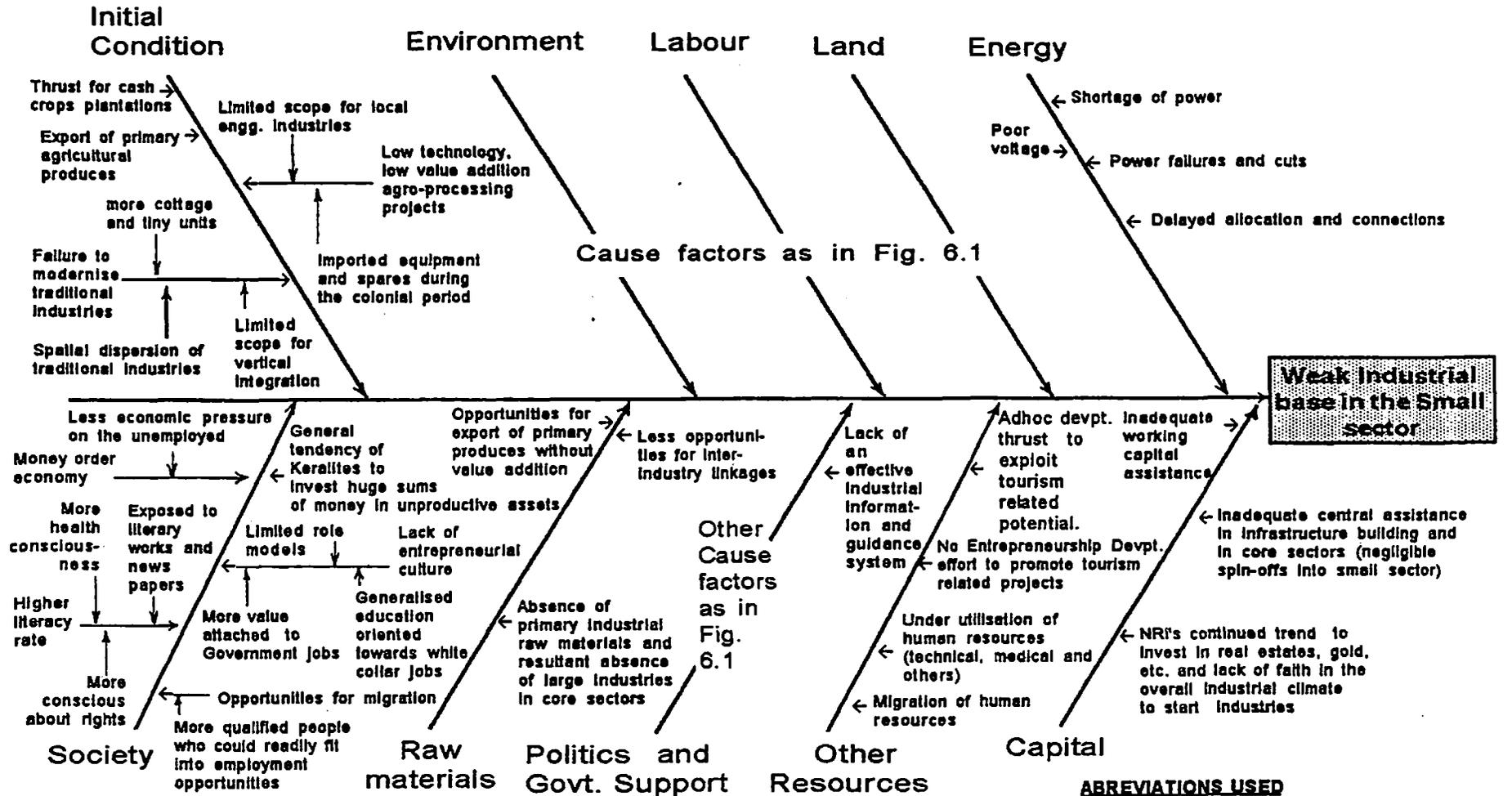
ABBREVIATIONS USED

- L & M - Large and Medium
- SLPE - State Level Public Enterprises
- DTPC - District Tourism Promotion Council
- NRI - Non-Resident Indians

Fig. 6.2

PROBLEM DIAGRAM - P₂

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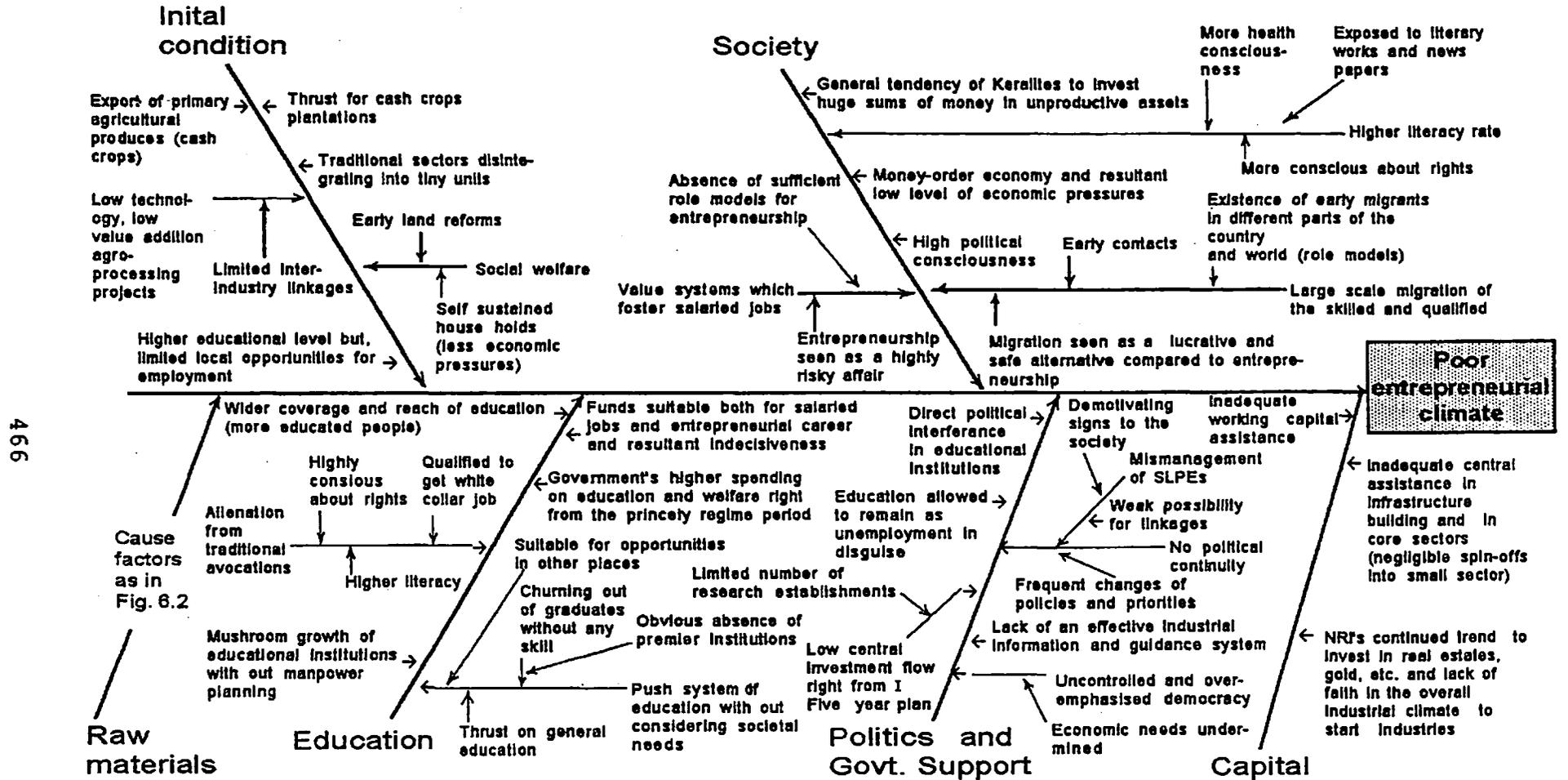


ABBREVIATIONS USED

- L & M - Large and Medium
- SLPE - State Level Public Enterprises
- DTPC - District Tourism Promotion Council
- NRI - Non-Resident Indians

Fig 6.3

PROBLEM DIAGRAM - P₃



ABREVIATIONS USED

- L & M - Large and Medium
- SLPE - State Level Public Enterprises
- DTPC - District Tourism Promotion Council
- NRI - Non-Resident Indians

Table 6.1

Outline of Critical Factors and Elements influencing Industrialisation of Kerala

Major Causative factors	Inherent/Root elements		Man-made elements		Problems	Prospects
	Manageable	Demanding deviation in the approach	Manageable	Demanding deviation in the approach		
a. Land	Geographical remoteness within the country	Scarcity	Booming real estate activities	High density of population. Dispersed human settlement pattern	Pollution problems. High project cost. Limits benefit of agglomeration. Limits the number of Large and Medium scale industries	Nil
b. Environment and ecological conditions	-	Picturesque land, rain forests, back waters, rivers and rivulets	-	-	- do -	High potential for tourism related projects
c. Raw-materials	Variety of raw-materials such as rubber, spices, china-clay, silica sand, rare-earths, etc.	Absence of primary industrial raw materials and energy raw materials	-	-	Very limited scope for industrial investment in the core sectors	Rare-earths related large and medium industries. Highly value added products based on other raw-materials aimed at direct export. Import other raw materials, value added and export
d. Other resources	Intelligent and literate human resource. Skilled men in traditional fields including Ayurveda.	Picturesque land rain forests, back waters, lengthy sea-coast, etc. Better health condition and hygiene.	Large number of educationally qualified people	-		High potential for human capital based and tourism related projects
e. Initial condition	-	-	Initial developmental approach aimed only at bare minimum processing of cash crop produces for export. Weak traditional sectors	-	Trend to export primary produces without much value addition	Potential for modernising traditional sectors

Major Causative factors	Inherent/Root elements		Man-made elements		Problems	Prospects
	Manageable	Demanding deviation in the approach	Manageable	Demanding deviation in the approach		
f. Political stability and government support	—	Political instability	Uncontrolled democracy. Bureaucratic discontinuity at key positions	—	No unity of direction. Reversal of policies and priorities. Stalling of projects. Lack of political determination and commitment	--
g. Labour	--	--	Proliferation of trade unions. Militant headload workers. High wages in the unorganised sector	—	Over emphasised political activities. Lack of confidence about comfortable labour attitudes	--
h. Capital	--	--	Low inflow of central investments	--	Limits spin-offs and inter-industry linkages. Limited 'incubator' organisations.	--
i. Energy	—	Absence of energy raw-materials such as coal, oil, gas, etc.	Too much dependency on hydel power generation	—	Limited scope for thermal power plants. Very little scope for nuclear power plants.	--
j. Society	Social value systems favouring salaried jobs.	—	High levels of education and high literacy	—	More of anti-entrepreneurial social value systems. Educational system was not nurturing entrepreneurial qualities. It was alienating youngsters from productive sectors	Being highly literate and educated it is easy to attain societal changes through re-orientation programmes

Fig. 6.4

SOLUTION DIAGRAM - S1 (of P1)

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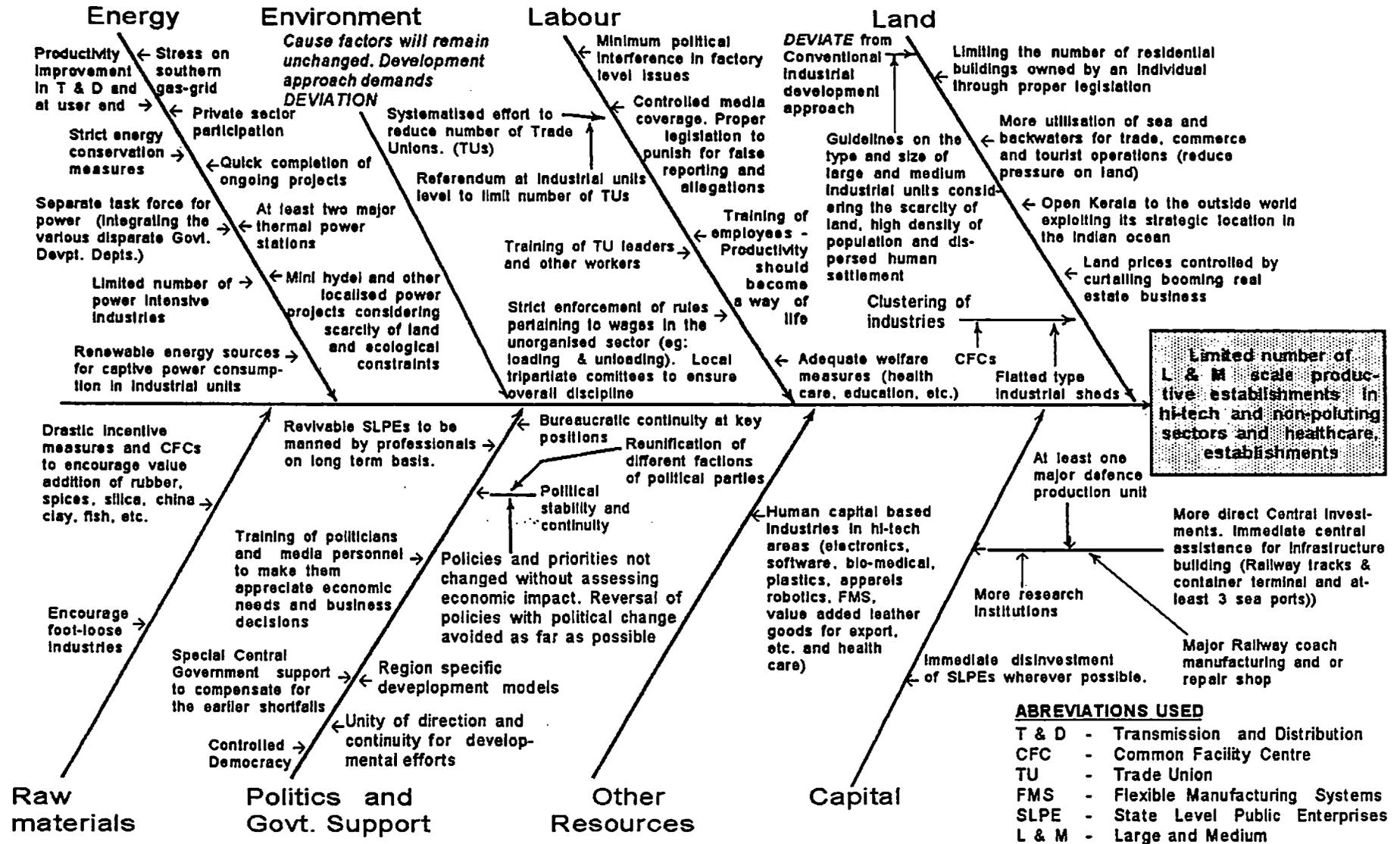


Fig. 6.5

SOLUTION DIAGRAM - S2 (of P1)

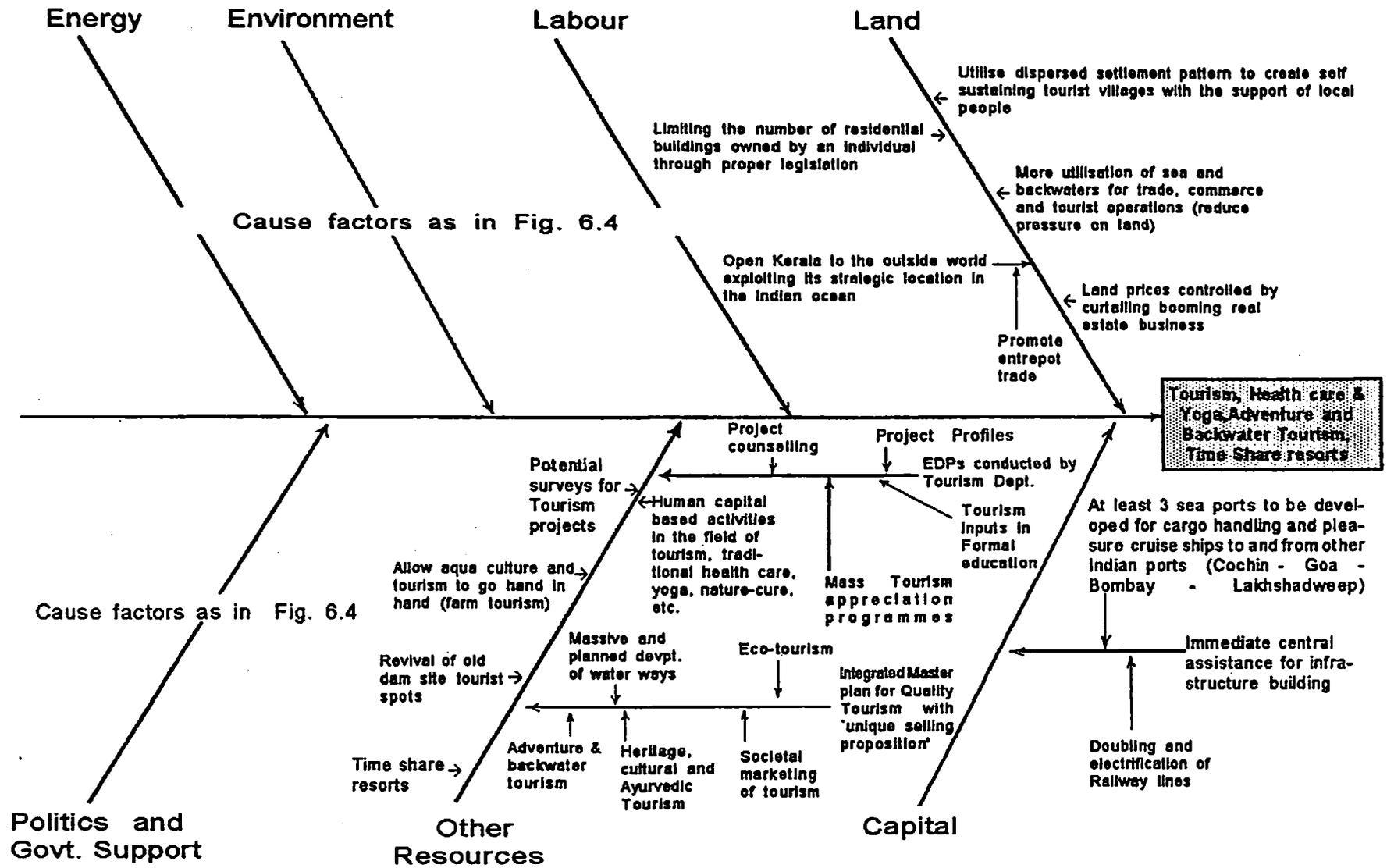
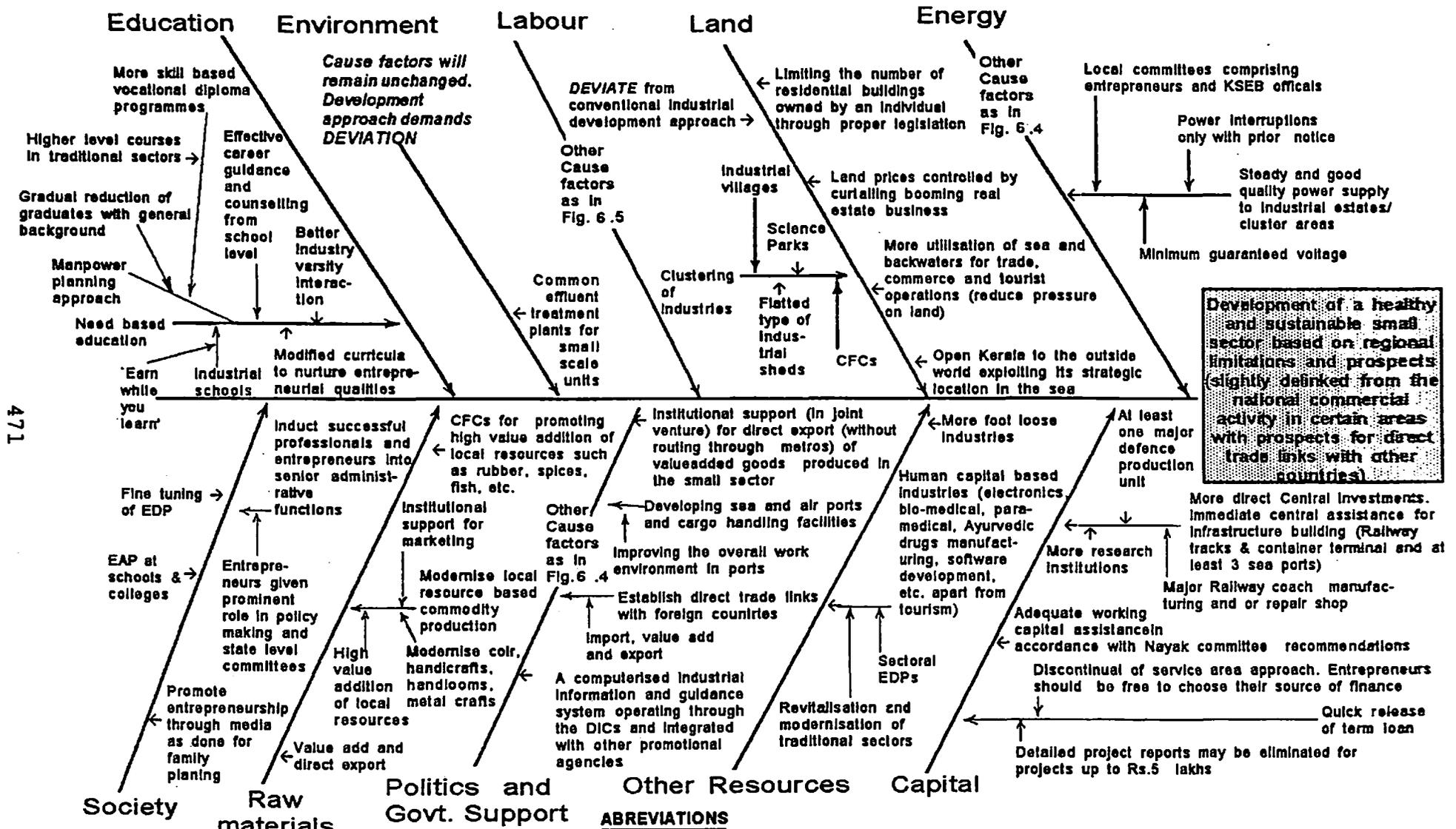


Fig. 6.6

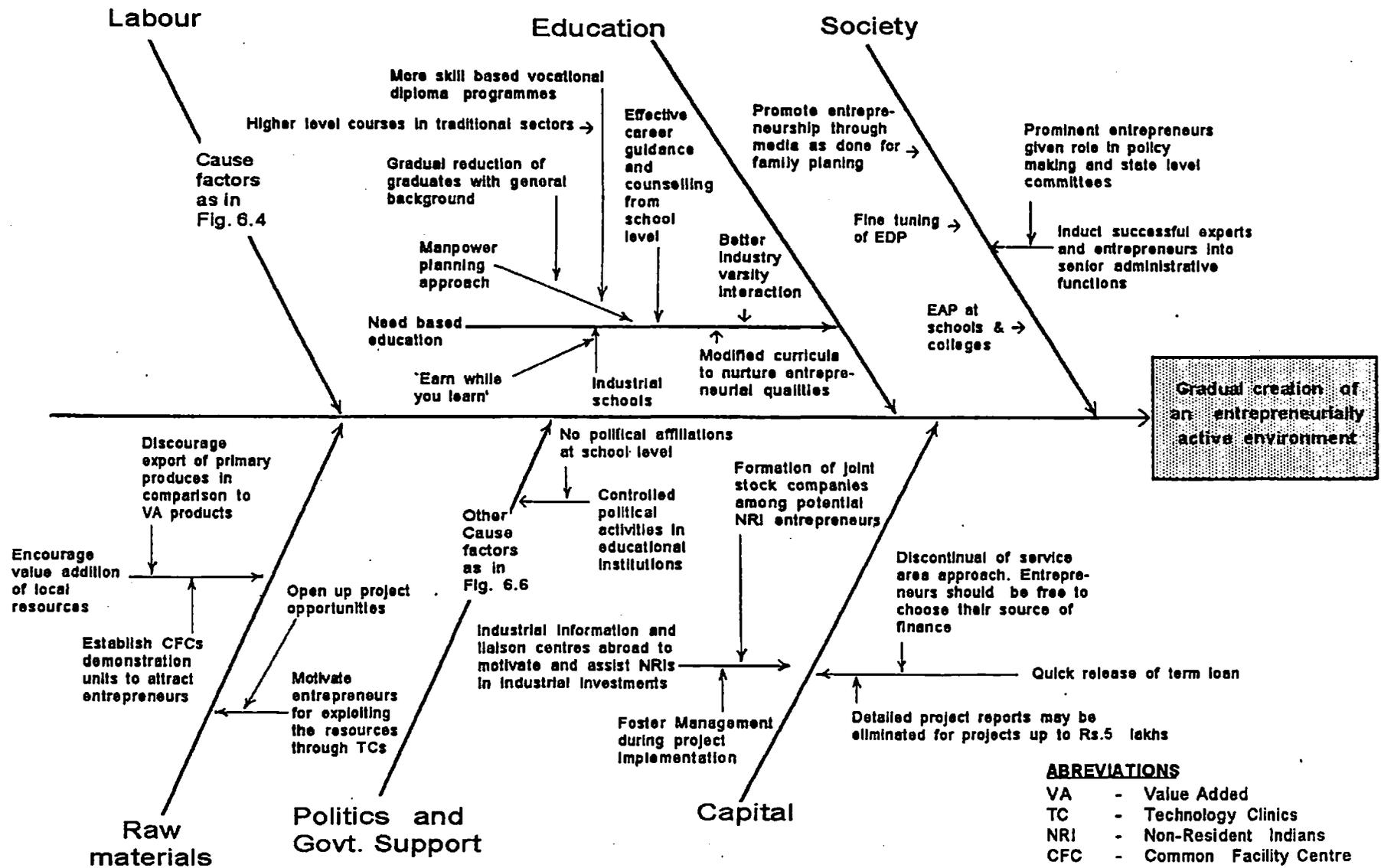
SOLUTION DIAGRAM - S3 (of P2)



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Fig. 6.7

SOLUTION DIAGRAM - S4 (of P3)



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6.5 Detailed analysis of the Causes and Effects

The earlier depiction by way of 'fish-bone' diagrams gave a holistic picture of the problems of industrialisation of this region. This method of analysis reveals that in order to achieve industrial development of the region, a multi-pronged approach has to be resorted to taking into account a set of main factors and or sub-factors at any given point of time. The detailed analyses of the Causes and Effects and the logic behind the solution diagrams are given below. In order to avoid separate repetitive descriptions for Problem and Solution diagrams, the analytical description of the problem and the solution is given together. It may also be noted that the solutions have been arrived at based on the detailed analyses done in the earlier chapters. Therefore, only a gist of the arguments and conclusions have been given below.

Solution steps

A. Land

Scarcity of land and high density of population are peculiar problems faced throughout the state. This, coupled with a dispersed human settlement pattern and also the construction boom which was largely dependent on the foreign remittances, have tremendously increased the pressure on land. The land costs have also escalated several fold during the past one decade or so. Thus, while scarcity of land also is an *inherent* problem which demands a *deviation* from the conventional

industrial developmental approach, a few methods would provide solutions to some of the man-made problems. Yet another problem faced by Kerala is its geographical remoteness within the country (see Chapter 5 for details) almost alienating it from the hustle and bustle of economic activities within the country. The proposed solutions are :

- a) More utilisation of sea and backwaters for trade, commerce, tourist operations and transport with a view to reduce the pressure on land.
- b) Open Kerala to the outside world by establishing direct trade links with foreign countries (may be even through the introduction of 'twin city' concepts) exploiting its strategic location in the sea. Develop sea ports and cargo handling facilities.
- c) Limit the number of residential buildings owned by an individual through proper legislation.
- d) Control land prices by trimming the booming real estate business in a need-based manner. Civic authorities may enforce strict regulations on construction of buildings considering its impact on the living conditions, density of population, etc.
- e) Promote clustering of industries (especially, small-scale units) by providing excellent common infrastructure and Common Facility Centres (CFC) such as tool

rooms, design and testing centres, marketing supports, etc. Adoption of villages for nurturing such clusters may even be entrusted to private sector on Build, Operate, Lease and Transfer (BOLT) system.

- f) Promote the use of 'flatted type' of industrial sheds by providing built-up complexes instead of conventional industrial estates and independent plots. Such infrastructural facilities may be encouraged to come up in the private sector. Flatted type sheds could cater to the needs of sectors such as electronics, garment making and hi-tech areas.
- g) Issue guidelines on the type (thrust industries) and size of large and medium scale industrial units considering scarcity of land and ecological constraints.
- h) Create 'Industrial Growth Centres' in districts such as Kasaragod, Cannanore and Malappuram which have relatively more area of unutilised land.

B. Environment

Kerala's ecology and environment is a strength as well as a weakness in economic terms. While it is essential to protect the rich flora and fauna of this region, this very requirement also brings in a lot of constraints for industrial development. The high density of population also makes this region vulnerable to pollution. On the other hand, this

picturesque land with its backwaters and tropical forests make this region a highly potential place for the promotion of tourism. These cause factors should therefore be considered as *inherent* or *root* factors which demands deviation in the approach towards economic activities. This deviation will be reflected in the solution diagrams in terms of the proposed thrust to alternative avenues (other than manufacturing) of economic activities such as tourism, health-care, etc. (see Fig. 6.4 to 6.7).

C. Raw materials

From an historical point of view, it is often explained that Kerala had missed the earlier national level rapid industrialisation drives mostly on account of the absence of primary industrial raw materials such as iron ore, bauxite, etc., the presence of which normally results in the setting up of large industrial units in core sectors. But, the earlier analyses have revealed that this alone may not be the major factor for the industrial backwardness of the state, as the state also has the history of having failed to capitalise on a large industrial base deliberately created just before independence and also has the history of low value addition of majority of the raw materials which are locally available in abundance (see 6.6.1 below). The argument for the latter situation is that this trend was deliberately brought in by the British colonial regime with the idea of sourcing raw materials from India to strengthen their industrial activities. Given this

background it is suggested that the following measures may be adopted.

- a) Specific incentives and subsidies aimed at promoting high value addition of locally available raw materials such as rubber, spices, silica, china clay, fish, rare earths, etc.
- b) Common Facility Centres (CFC) for research, design, testing, processing and training in selected fields to encourage value addition of the aforesaid raw materials in the small sector with the help of these common facilities.
- c) High value addition of these raw materials aimed at direct export to foreign countries. The emphasis could be on focusing on certain thrust areas which offer immense opportunities for vertical integration aimed at export of products as well as technology.
- d) Provide institutional support for marketing of value added products made out of local resources. For instance, promotion of floriculture, tissue culture or fruit processing shall be done through an institutional support and guidance for global marketing.
- e) Import raw-materials, value add and export (see 6.7.1 below)

f) Modernise coir and handloom sector with a long term vision, programmes and plans to cater to the widening global and domestic market for eco-friendly products.

D. Other resources

The excellent human capital formation that has taken place in Kerala, the natural beauty, rain forests, backwaters and the extensive sea-coast are certain unique resources of Kerala which are yet to be fully exploited for the economic prosperity of this region. The earlier analyses have shown that the higher level of human resources development in Kerala had resulted in the migration of the skilled work force to other parts of the country and the world (see Chapters 4 and 5). This migration had largely taken place due to the inadequacy of sufficient opportunities within the state. From this point of view the solution to the problem may lie in developing human capital-based industries in the fields of electronics, bio-medical and para-medical activities, software development, ayurveda, etc. (see Figures 6.5 and 6.6). It is also equally important to attract more and more youngsters into entrepreneurial activities in these sectors. From a holistic point of view, the continuation of Entrepreneurship Development Programmes (EDP) cannot be expected to achieve this objective fully. On the other hand, as explained in Chapter 4, EDPs may be seen as a fine tuning programme for those highly potential entrepreneurs who have already been brought

to that stage through adequate awareness creation and motivational measures included in the curricula at the school and college levels. In the present approach the EDPs are imparted on a raw target group with an average age of 30 years when some resistance to change has already developed in their minds. As seen from the survey conducted among EDP candidates majority of them also reach the EDP classes after a protracted attempt for salaried jobs, almost wasting their most productive years in life. As part of a multi-pronged approach, the society at large shall be exposed to extensive Entrepreneurship Awareness Programmes (EAP) through electronic and print-media, seminars, etc., probably the way mass awareness was created for family planning measures.

Development of Tourism is often stated as one of the priority areas for the state government. However, based on the earlier studies done specifically on the subject of Tourism Development of Kerala¹ it can be said that a holistic approach towards developing a sustainable tourism industry has not yet been tried. For instance, the experimentation with decentralised district level tourism development through the District Tourism Promotion Councils might have resulted in a thin spreading of the resources without having a master plan. This might have also resulted in the ad hoc development thrusts given to exploit tourism - related potential. While earlier itself Kerala had proven the possibility of generating tourism potential associated with investments in the other pro-

ductive sectors of economy (for instance, tourist resorts around the Malampuzha and Neyyar Dams), this effort has not been subsequently pursued with sincerity and commitment. The present plight of inactivity at both the above referred dam sites which used to attract thousands of tourists one or two decades ago is ample proof for this. In this context, it could be recommended that apart from reviving these old-time resorts, new such resorts could be developed. For instance, aquaculture and tourism could go hand in hand wherever there is scope for it. In a similar manner tourism development in Kerala could also be easily and effectively linked to ayurvedic and herbal health care systems which is traditionally a strong area of knowledge and skill in Kerala. A planned introduction of this new concept called *Ayurvedic tourism* along with *Cultural and Heritage tourism* would enable Kerala to position itself in a unique manner in the global tourism market.

Yet another problem in the development of tourism is the failure in developing entrepreneurship in this sector the way it has been tried in the case of manufacturing industries. These and other finer elements such as tourism potential surveys, societal marketing of tourism, preparation of project profiles and specific financial assistance schemes should become an integral part of a multi-pronged tourism development approach (see Fig. 6.5).

E. Initial industrial base

The initial developmental approach adopted in Kerala since the period of the colonial rule was analysed in detail in Chapter 4. The corresponding features of the initial condition are indicated in Fig.6.3 (Problem diagram P₃). Though there was a short period of accelerated thrust for setting up modern industries in Kerala just before independence, after the formation of the present State of Kerala, the successive governments more or less fell in line with the initial developmental approach. Apart from this, these Governments also inherited the long tradition of emphasising on education and social welfare. The overall effect was low value addition on the locally available resources and also low entrepreneurial participation in manufacturing. While the initial economic base is a historical reality, as of now, what is important is to correct its influences on the society which has culminated in entrepreneurial inactivity, especially with regard to manufacturing. In other words, over a long period of time, the effect of the initial developmental thrust has become a societal problem when viewed from the point of view of industrialising the state, the solution for which is suggested along with other factors such as society, education, raw material, etc. in the solution diagrams (Figures 6.6 and 6.7). For instance, motivation of the local people to venture into manufacturing based on locally available resources could be achieved through the establishment of

common facility centres, demonstration units and also by providing institutional support for marketing in a few selected areas in the small sector. At present, such institutional support is being provided to handloom and coir sectors. But, by the very nature of the organisational set up, these institutions are incapable of reacting to a mercurial business environment, especially when catering to the external markets. Revamping of educational system to make it a need - based one is yet another approach of correcting the initial thrust on generalised education.

F. Politics and Government support

The analyses done in the earlier chapters have indicated that the nature of government intervention was not adequately favourable for the industrial development of this region. The political system was also not found to be supportive to it. The major problems which came to the surface were political instability, frequent changes of policies and priorities, bureaucratic discontinuity, etc.(Fig. 6.1). The probable solutions to these problems are listed below (see Figures 6.4 and 6.6).

(a) Uncontrolled democracy and unity of direction

Over emphasis on democratic values and systems and procedures would be like either allowing different horses to pull a cart in different directions or wasting lot of time to arrive at a consensus by making the 'method'

right and not the 'end'. Uncontrolled democracy would, therefore, work against one of the basic principles of management, viz; unity of direction. Instead, accountability in quantifiable terms and also authority to perform shall be guaranteed to Department Heads which should be periodically reviewed against a time frame. Discipline among the media shall be brought in through a process of consensus and training by keeping the economic needs as the main item in the agenda. Media shall start undermining political debates of leaders and sensationalisation of trivial problems in the industries and elsewhere.

Policy decisions shall be taken based on logical conclusions and using the expertise of professionals appointed for the purpose. Populistic approach aimed at the vote banks and over-stressed and ill-conceived welfare measures may be avoided. For instance, decisions like selection through Public Service Commission for all government organisations should be weighed against its impact on incapacitating the functioning of many government owned commercial organisations due to cumbersome and protracted procedures in the name of puritanism.

(b) Training the leaders

As such, political workers are seldom put through formal training programmes linked to business and economic

needs of the society. Considering this aspect, it may be appropriate to organise periodic structured training programmes for top, middle, and bottom level politicians, Members of Legislative Assembly (MLAs) and Ministers on areas of economic interests such as productivity, economic needs, socio-economic aspects, labour relations, tourism, industry etc. The Institute of Management in Government and other similar institutions and the National Productivity Council could take the lead in this activity.

(c) Political stability and continuity

Political splits and branching out have become the order of the day. Splits occur mostly on account of petty parochialism, personal ambitions and conflicts. As tug-of-war between parties and their factions increases, more so in a situation of balanced strength of two or more parties, political instability sets in. This results in a chain reaction of lack of unity of direction, reversal of policies and priorities and discontinuity of bureaucrats at key positions including the chief executives of SLPEs. The net effect would be the creation of unfavourable environment for private investment. But, political stability in a democratic country is something which is in the hands of the people. However, suitable methods could be evolved to educate the masses about the need for political continuity. But, for some reason,

in a peculiar situation as in Kerala, if political continuity cannot be maintained, the next best solution is to have an approach whereby the changing governments will not simply reverse policies and priorities on ideological grounds and without considering the economic impact, especially if it results in the wastage of large sums of money already invested, impairment of the health of an industrial sector, reduced employment, etc. Political instability, therefore, may be compensated through an apolitical approach by ensuring bureaucratic continuity.

(d) Bureaucratic continuity

Bureaucrats may be appointed in various positions in an apolitical manner and based on his/her suitability for a function. They may also be allowed to continue in positions which require continuity to ensure success and accountability. They should also be made responsible and accountable in ensuring the efficacy of the developmental programmes by using suitable norms for performance measurement. Here, the present yardstick of percentage of expenditure out of the total budgetary allocation by itself would act as a drain of resources. With such a yardstick in operation it will only be natural to spend huge sums of money in an unplanned and wasteful manner towards the end of the financial year with a view to achieve the targets fixed for expenditure under

various development schemes. The busy road repairs and the numerous money spending activities of various departments during the months of February and March every year are enough proof to this wasteful practice. One way out of this would be to fix quarterly targets with higher weightages (performance rating) for expenses incurred in the initial periods of the year.

G. Labour

It was seen earlier that the common complaints about the high wage cost of Kerala labour is more or less a sweeping statement covering the entire work force. The earlier analyses have shown that the wages in the organised sector in Kerala are not high, but the problem lies in the unorganised sector comprising head load workers, construction workers and certain skilled men like carpenters, plumbers, etc. The large number of immigrants from Tamil Nadu who compensate for the shortage of Keralite workmen for unskilled manual labour and the reverse flow of skilled factory labour to other states is a clear indication of the comparatively higher wages in Kerala in the unorganised sector. But, it was revealed that the productivity of Kerala workers in general had been low when compared to their wages. Proliferation of trade unions was obvious in Kerala. Apart from this, the head load workers continue to be a nightmare to entrepreneurs. Therefore, it could be generally concluded that though statistics show an overall improvement in the labour scenario, the labour sup-

port for productive activities obtained from Kerala is somewhat a strained one compared to the other southern states. The over-emphasised trade union activities had, in fact, sent shock waves among the entrepreneurs and their perception about Kerala labour continues to be so. Analysis of entrepreneurial perceptions about Kerala as an industrial destination had also revealed that labour attitude is the major factor which differentiates Kerala from the other southern states. In the background of the aforesaid problems the following are being proposed as the solutions.

(a) Limiting the number of Trade Unions

A serious effort may be chalked out to reduce the number of trade unions (and so also the number of political parties) by conducting referendums in industrial units as per the guidelines of the National Commission on Labour. It would also be appropriate to initiate a move to re-unite the various factions of erstwhile major political parties and trade unions. This effort shall be projected as a need of the hour for political stability and economic prosperity of the region by providing a more favourable condition for economic activities.

(b) Productivity

Productivity, should become a 'way of life' in the industries. This could be achieved not only by setting production standards but also by training and motivating

workers, providing as much welfare measures as possible and also by establishing productivity-linked incentives. Tendencies to withhold productivity under the umbrella of trade unions shall be curtailed by not merely through the enforcement of regulations but also through generating a sense of belongingness to the organisations where they work. Apparently, majority of them are primarily wedded and loyal to their trade unions. This change could be achieved only through proper management practices with continuity and long term vision.

- c) Trade union leaders and members shall be put through training programmes intended to inculcate better work culture and also to nurture qualities favourable for economic activities. They may also be trained in proper collective bargaining methods.
- d) Strict enforcement of rules pertaining to wages in the unorganised sector. Tripartite local committees with representation from trade union, industry and known personalities could be formed to ensure an over-all discipline and also to settle disputes.

H. Capital

To start with, the present integrated Kerala had the problem of sourcing adequate capital from Central Government by way of direct investments in infrastructure and industry, when

direct government investment in key productive sectors was the order of the day. The details with regard to its effects have already been analysed in Chapters 4 and 5. Now, when the Indian economy has been opened up to the rest of the world and the government has almost divested itself of the responsibility to make any more direct investments, Kerala faces a new problem with regard to investments from outside the state, essentially due to the absence of the benefit of agglomeration of inter-linked industrial and commercial activities. Apart from this, the Non-Resident Keralites continue with the trend of investing in unproductive assets. This apart, Keralites in general have shown a tendency to invest huge sums of money in landed property, buildings and gold. The SLPEs in Kerala which were set up deliberately by the state government to compensate for the inadequate central investment in the earlier Plan periods also had failed to generate surplus. As of now, government's efforts to disinvest many of these SLPEs to attract capital into the state and boost up the secondary sector has also been in vain, mainly due to the resistance from the labour unions.

Considering the historical facts which ultimately resulted in Kerala remaining a poor economic performer demands some amount of corrective steps from the part of both the central and state governments. As seen earlier, Kerala needs a different developmental approach as many of the national level generalised models may not readily suit the regional charac-

teristics of this state. Therefore, deliberate government intervention is required to help Kerala tide over the present economic crisis. Based on these arguments it could be suggested that, to create an environment conducive for 'cumulative causation' resulting in a healthy small industrial sector, it may be essential that at least one major defence production unit and one major railway coach manufacturing or repair shop along with a few research institutions of national importance come up in Kerala. The experiences of the other three southern states in this regard validates the effectiveness of such an approach. More central assistance could be directed to flow into infrastructure building, especially in developing at least three sea ports in Kerala, container terminals and also doubling of railway lines. The sea and air ports shall be developed in a manner which facilitates direct trading and commerce relations with the other countries (see Fig. 6.4 to 6.6). However, considering the scarcity of land, Kerala could emphasise more on developing its sea ports.

I. Energy

To start with, Kerala did not possess any conventional energy raw materials such as coal but had enough potential for hydel power generation. Naturally, the entire power system in the state was built up around the hydel sources. At the initial stages, this was absolutely a strong point for the state as there was not only surplus power but also cheap power avail-

able in the state. But, over the years the total dependency on hydel power has led the state into a situation of looming power crisis. While various alternative sources of energy are being considered now there is no real ray of hope except for the possibility of a 2420 MW super thermal power station coming up at Kayamkulam. Here again, lack of political will, constraints related to land availability, coal handling and other typical problems in a densely populated region had brought in inordinate delay even for making a real beginning in the execution of the project. This project which was earlier expected to be completed in 1995 is now scheduled to complete only by 1998. Considering the high density of population, a nuclear power plant may be the last thing which Kerala could think about. Most of the projects proposed by the state are awaiting clearances from Central Government agencies, especially from the Ministry of Environment and Forests. The proposed gas-based station at Vypin is awaiting fuel-linkage from the Ministry of Petroleum and Natural Gas. This can be established only if the Southern Gas Grid for bringing the gas from Bombay High to Cochin materialises. Apart from this, delays in obtaining sanctions is yet another reason for the delayed implementation of almost all the projects taken up by the State Electricity Board. Considering all these the following solutions are recommended. These recommendations have also taken into account the importance of energy conservation and overall productivity improvement in the power sector.

- (a) Political commitment and will to prioritise power generation as a major necessity of the state. Form a high level task force for this purpose.
- (b) The task force should be able to facilitate integrated functioning of various agencies connected with power generation and consumption.
- (c) The task force may remain separated from KSEB and shall prepare a Master plan and also identify suitable type and place of power generation.
- (d) The Master plan shall have (a) short term plans to fill the immediate demand-supply gap which would also cover energy conservation and other productivity improvement in the existing system (b) Medium term plans linked to the economic activities that would take place in the sectors of industry, tourism, etc. (c) Long term plans to avoid future crisis.
- (e) Stress on Southern Gas Grid and gas-based power stations
- (f) Speedy completion of the proposed two super thermal power stations at Kayamkulam and Thrikkarippur.
- (g) Power projects may be made free from strikes and work stoppages through proper legislation.
- (h) Private participation and wholly privately owned power projects shall be encouraged to the fullest extent

possible. Kerala State Industrial Development Corporation may extend financial assistance for such projects. Ultimately KSEB should be by and large focusing on the transmission and distribution only.

- (i) The earlier lapses in Central Investment should be sought to be compensated through investments in power projects.
- (j) Introduction of renewable sources of energy for captive power consumption (eg: solar panel or wind power for common lighting purposes in industrial estates)
- (k) Mini hydel and other localised power projects.
- (l) Strict energy conservation measures through 'energy-audits' and also by educating the masses.
- (m) Productivity improvement in transmission and distribution and also at user end. KSEB or Electrical Inspectorate may provide consultancy support for the same to industries - a separate Research and Consultancy division could be thought about.
- (n) Discouraging setting up of new power-intensive industrial units with a view to ensure the success of the existing industrial units.

J. Society

Having identified the importance of the society and its value systems as an essential pre-condition for the success of any industrial developmental activity, it is imperative to look into this aspect from the point of view of industrialising Kerala. The conclusions made with regard to the 'money order' economy, the reasons for migration, lack of entrepreneurial culture, lack of entrepreneurial role models in the society, etc. are indicated in the problem diagram given as Fig. 6.2. The corresponding solution diagram comes up with the following major points (see Fig. 6.6).

- a) The initial condition with regard to economic development was basically an agrarian one with almost full thrust on plantation crops cultivation and the export of its produces. The subsequent government interventions to industrialise this region have been either very short-lived ones or those with inadequate homework and commitment. This background coupled with the over-emphasised political and trade union activities and various other factors which were analysed threadbare earlier have made the Kerala society somewhat unprepared for any drastic industrialisation programme, more so in an open economic environment led by market forces. Therefore, bringing in an attitudinal change in the society is almost a pre-requisite for any earnest economic development process.

b) It was also found that the higher level of literacy and education achieved by Kerala even in the pre-independence period had prompted Keralites to migrate to other regions. Though this resulted in large scale remittances into the state, Kerala was also losing an opportunity to build up its productive sectors through the participation of an entrepreneurially active society. The 'money order' economy coupled with the effect of land reforms had also lessened the economic pressures on Kerala youth. In fact, the general education earned by these youngsters would have alienated them from those traditional sectors where their ancestors were gainfully employed. In other words, education by itself might not have contributed to a sustainable economic prosperity of this region (see Chapter 5). In this background re-vamping the educational system may be an essential prerequisite for any long term economic development programme.

Considering the importance of preparing the society for the proposed industrial development approach, the detailed analyses and recommendations with regard to this aspect have been given separately under the heading 'Creating an entrepreneurially active environment in Kerala'. But, all the major suggestions with regard to this would appear in the solution diagrams (Fig. 6.6 and 6.7).

6.6 Creating an entrepreneurially active environment in Kerala

Two factors play a vital role in entrepreneurship development. One factor is the development of the ENTREPRENEUR himself and the other is developing an ENVIRONMENT conducive to entrepreneurial activities. The emergence of entrepreneurs in a society depends on closely inter-linked economic, social, cultural, religious and psychological variables. Experiments in India have shown that entrepreneurship can be developed through planned efforts. It was observed that 'Entrepreneurs are not necessarily born, but can be developed through various 'Stimulatory activities'.² Thus, the much popular Entrepreneurship Development Programmes (EDPs) came into existence and was being tried out throughout the length and breadth of the country. The study of such efforts in Kerala revealed that while such motivational and awareness training programmes were meticulously organised, the state failed to provide 'Support Facilities' such as basic infrastructure, institutional support for overcoming the locational disadvantages, proper industrial information system, etc. With the result, the motivated prospective entrepreneurs continued to run helter-skelter for know-how, raw material procurement and power connection. A survey conducted among the EDP candidates also had revealed that a majority of them were driven to entrepreneurship due to the shortage of job opportunities. A small percentage of them had come for EDPs

after retirement from government service. Ideally speaking, entrepreneurs should emerge out of a society as a natural phenomenon driven by the urge to achieve material benefits and to be independent. For a variety of historical and other reasons stated earlier the Kerala society does not show much entrepreneurial qualities especially with regard to the setting up of manufacturing units.

6.6.1 Resources endowment and entrepreneurial climate

Though industrial development of a region could have close links to the resources available there, it could be said that abundance of natural resources alone cannot set favourable conditions for commodity production. The industrial backwardness of Kerala is a classic example for this. As such, majority of the raw materials available within the state flow out to other states for value addition, only to be returned as finished goods. Thus, the benefits of reinvestments of the surplus generated also go elsewhere. A review of the industrial exploitation of some of the major resources would itself reveal the neglect of the immense opportunities for economic activities within the State.

Rubber

About 93 per cent of the natural rubber produced in India is from the state of Kerala, out of which only about 15 per cent is utilised by the industries within the state. But, it is

ironical to note that Kerala has the highest number of rubber-based industrial units when compared to other states.³ This essentially shows the low level of investment and low scale of value addition in this sector, mostly employing low technology process. Most of the rubber based - industries in Kerala manufacture products such as MC sheets, hawai chappals, tread rubber, latex thread, rubber bands, etc. There are, however, a few examination gloves manufacturing units in the Cochin Export Processing Zone and a public sector undertaking, Hindustan Latex at Trivandrum, manufacturing condoms.

At present, rubber in the form of raw sheets, crepe and latex concentrate are sent outside the state in large quantities where substantial value addition takes place. It has been found that about 45 per cent of the rubber consumed in the country is in tyre and tube production and 15 per cent in cycle tyre industry. Majority of industries in this sector are in other states. This is partially due to other favourable conditions such as the presence of those industries which consume rubber products (eg: automobile industries) and the availability of raw materials such as nylon, tere-lene, synthetic rubber, rubber chemicals, carbon black, process oils, etc. which are needed for rubber-based products.

China clay

Kerala is endowed with one of the richest and largest china clay resources in the country. The total estimated reserve is

about 72 million tonnes.⁴ The clay available in this region are the high grade Kaolinitic clay, refractory and plastic clays for ceramics, paper coating grade and that for pharmaceutical applications. But, there are only three major industrial units in Kerala using china clay, viz; Kundara Ceramics in Quilon district, English Indian Clays Ltd. at Trivandrum and Ceramic Products at Cannanore. There are also a few clay crushing and washing units in the small sector. Most of these units produce only conventional products with low value addition taking place within the state. With the advancement of technology, there is, in fact, ample scope for utilising the high grade china clay resources for producing highly value added products such as special refractories, zeolite, bone china ware, HT insulators, Wall and Floor tiles, ceramic fibre, etc.

Rare earths and silica sand

The state has the largest resources of beach sands (approximately 18.50 million tonnes) containing the richest concentrations of ilmenite, rutile, zircon, monozite and sillimanite in the world.⁵ The maximum utilisation of these mineral sands is well below a lakh of ton per annum. Apart from the two state-owned Titanium dioxide manufacturing units, Indian Rare Earths is the only other unit processing these minerals.

The industrial exploitation of silica sand, available in plenty in Alleppey district, is negligible. There are only a

very few sodium silicate units, glass shell units and two ferro-silicon units. Most of the license holders mine silica sand and send them outside the state for use in foundry units and glass making. It is astonishing to find that there is only one medium industry in Kerala using silica sand for glass production. There is an apparent scope for setting up units to produce sheet glass or float glass, GLS bulb shells, etc.

Leather

In the state of Kerala, approximately about 10 lakhs numbers of skin and hides per month are generated. But, industrial exploitation of this raw material is on a very low key.⁶ Due to the problems of setting up tanneries in this densely populated state, raw hides and skin are sent to the neighbouring Tamil Nadu for the initial processing. But, it would still be advisable to bring back the processed leather for making products such as warm clothes, shoe uppers, fancy items, gloves, etc. aimed at the export market. In this context, it may be noted that, in the seventh plan period, on all India level, leather industry had registered a growth rate of 28 per cent as against the target of 19 per cent and leather goods stood fourth among commodity exports from the country. It is disappointing to find that Kerala which produces a large quantity of raw leather could not partake in this prosperous business.

Marine wealth

Kerala has an extensive coastline and large fresh water lakes, providing rich sources for a variety of fishes, prawns etc. Kerala accounts for about 20 per cent of the total fish landings in the country. It also accounts for about 40 per cent of the total export of marine products from the country.⁷ Therefore, this is one sector which gives room for complacency as far as the present level of industrial activity is concerned.

As seen in Chapter 4, the future of cashew industry, which was a foreign currency earner, is apparently quite bleak. It was also observed that the coir industry is gradually moving out of Kerala into the neighbouring states. As in the case of cashew industry, the situation demands a holistic approach for properly exploiting the wide variety of raw materials such as coconut kernels, oil, shell, husk, coir, etc. which are obtained from the coconut tree.

The above picture of under exploitation of the majority of the already available resources points to the necessity of considering the following aspects while framing any alternative strategy for industrial development of the region:

- (a) Abundance of natural resources alone cannot set favourable conditions for commodity production.

- (b) The most important aspect of any economic activity is the human factor. The passive resources become active elements in an economy only when technology and capital are applied on to them by enterprising people who have an urge to achieve material benefits.
- (c) The overall cost-competitiveness of a region, making it suitable for economic activities, arises from the cumulative advantage accruing from a variety of factors. Therefore, it is felt that due consideration has to be given to principles such as 'circular and cumulative causation'⁸ instead of resorting to the 'resource endowment' approach while chalking out industrial development plans. There could, of course, be a thrust assigned to commodity production based on certain specific strengths of a region. In this context, it is felt that the traditional industries in the sectors of coir, handloom, cashew, handicrafts, etc., which had thus become promising industries in Kerala are now in their declining stage due to the absence of a holistic approach.

6.6.2 Revamping the educational system

Compartmentalised development approaches, as in the case of over - emphasised general education, were found to have done more damage than good. Education without specific needs alienated many from their traditional sectors of activities and also resulted in large scale unemployment and under-

employment. As stated earlier the society at large, which includes the educated and skilled youngsters, their parents, the bureaucracy and above all the political parties and their followers, should change in terms of their attitude towards participating or at least remaining supportive to economic activities. The new attitudes and tendencies may have to be socially developed to attain an industrial culture. This can be massively achieved and rapidly spread only through need-based education. Here, education should be seen as a social process aimed at motivating a community into certain activities in preference to others rather than teaching only the three 'Rs' ((R)eading, W(r)riting and A(r)ithmetic).

In the pre-British period, educational facilities existed almost in every village. But, as in the case of Industrial backwardness, the nature and type of educational institutions in Kerala did not change with the times. As on date, there is not even a single premier educational institution of higher learning within this state. From the analysis done in Chapter 5 what is evident is that the human capital development which took place in Kerala was only "efficient" in churning out educated youth but "ineffective" in achieving the real socio-economic objectives. This points to the necessity of a thorough revamping of the educational system with the objective of making it a 'need-based' one. This is, in fact, one aspect of creating a conducive environment for industrial development. Perhaps, the root cause for the dull economic

environment of Kerala lies in the high literacy and wrong educational policies, by which people become more conscious about their rights than duties and also carry unrealistic career ambitions. Even now, the educated in Kerala look up mainly to government organisations (comprising departments and public sector undertakings) and the organised private sector for employment. This was evident from the results obtained from the survey conducted among EDP candidates (see Chapter 4).

Over the years, the State has been witnessing a curious phenomenon of its very assets of educated youth turning into liabilities. Most of the educational institutions in Kerala still function with the traditional notion that they exist for creation and dissemination of mere knowledge. In a highly competitive global environment, education *per se* is not useful unless the education is transformed to fulfill the needs of a regional economy. But, a high degree of mis-match is observed in the demand and supply of manpower. This has created a huge army of university degree holders who are not required by the industrial sector. The industrial sectors require only highly skilled manpower in specific areas with significant bearing on productivity. A look at even the management ambience and the industry structure in Kerala would reveal certain peculiar features as given below.

- Though Kerala has produced eminent managers and teachers, most of them have acquired their status working outside Kerala.
- This migration of skill creates further impediments to the development of the region as the less successful get left behind manning many medium scale production units, a large part of which is state-owned. Those who have gained expertise outside are also found to return to the state at a later stage of their career, for personal reasons, and get under-employed.
- In Kerala, as in the case of central public sector investments, educational and research institutions of national importance have also not come up the way such institutions have been set up in states like Tamil Nadu, Maharashtra, Andhra Pradesh, Gujarat, Karnataka and many other industrially developed states in the country. Ideally speaking, the technical institutions of this state should have focused in developing manpower in thrust areas of economic activities of the state. To list a few, Bio-technology, Tissue culture, Fisheries, Agro-processing, Electronics, Computer applications, Health care, Tourism, etc. could be the areas of focus. Here again, the effort shall be from two angles. The primary focus shall be to stimulate the society at large, at the primary education level itself to venture into entrepreneurial activities. This approach should

also result in a shift from the present social attitude of valuing a general education aimed at white collar jobs, especially in the government sector. Thus, the society at large should be made enthusiastic about entrepreneurial activities. This could be attained by building up confidence about the social benefits of business enterprises, especially the benefits with regard to employment generation, economic prosperity and enhanced standard of living. It is also important to make the people aware of a reasonable level of social costs to be borne for achieving economic prosperity. The situation is of a 'give and take' nature trying to strike a balance between the social costs, benefits, risks, etc.

6.6.3 Manpower planning approach

The role of education in economic development has been emphasised through the previous analyses. Education, particularly for the pre-industrial societies was an important means of enhancing productive capacity. For the very same reason, allocation of resources to education was regarded as a form of capital formation. But, the human capital development achieved in Kerala did not result in the creation of a strong economic base of this region. As seen earlier, this was largely due to the failure to create avenues for the exploitation of the high level of human resources created. This resulted in the massive exodus of the educated and skilled

Keralites to other regions of the world. The net result was an apparent lushness and prosperity with no sustainable economic base. Thus, the educational development in Kerala did not become an essential part of the region's economic planning. Instead, it remained simply as a 'push system'.

Manpower planning assumes that things are complementary to each other and that the proportions in which they have to be combined are relatively stable. Its purpose is to derive the pattern of expansion in each level and branch of the educational system that will be required now, given the production targets for each sector of the economy in a future year.⁹ This is done by comparing the future 'demand' for manpower with particular types of educational qualification with the supply that is likely to be forthcoming. The following steps are involved in the process:

- (1) Prepare an 'inventory' of manpower, classified by industry, occupational and educational attainment, for the base year.
- (2) Estimate total employment in each sector of the economy for the target year.
- (3) Within each sector, allocate the estimated employment for the target year among various occupational categories. From this allocation by occupational category derive the requirements by educational attainment for each sector. This gives us the 'demand' for manpower

with each type of educational qualification.

- (4) Estimate the supply of labour of each educational category that would be available in the target year, given the present stocks and the net addition that would result in the intervening period from the existing educational system, after allowing for death, retirement and emigration.
- (5) Compute the difference between the 'demand' and the 'supply' of each type of manpower for the target year as given by steps (4) and (5) respectively. This gives the changes in supply that would be required in the target year to achieve balance with demand.
- (6) Compute the enrollment in each level and branch of the educational system that would be required in each successive year up to the target year in order that the changes required to achieve balance in that year may be achieved.

For the manpower planning approach the question of the time-period of planning is a matter of some importance. For relatively short periods, changing circumstances can be taken care of. For long periods, this is not possible. But, the time horizon appropriate to manpower planning is quite long. The calculations at each stage depend on specific economic assumptions. Suitable forecasting techniques should be employed for sectors where the pace of technical change is

expected to be rapid.

6.6.4 Catching them young

The ever-increasing demand for degrees and post-graduate degrees is also the result of the failure of the technical educational system in the state to help find jobs. The enrollment rate in vocational courses in the state indicates that the government's efforts to vocationalise higher secondary education has not been successful. The rush for college admission and degrees is made worse by the value attached by employers, especially the government, to degrees as against the capability of a candidate to do the job effectively. A degree or a post-graduate degree continues to be seen as an indicator of job requirement and skill, irrespective of whether it adds any special qualification for the job.

The number of persons with general education (graduation for the sake of being graduate) should, in fact, be gradually reduced in a phased manner and kept at an optimum level. In a buoyant economy, the opportunities that are created in the productive sectors would automatically take care of this. On the other hand, in a region like Kerala (which is facing a 'chicken first or egg first?' kind of situation with regard to economic development), earnest government intervention may be required to catch the youth while they are sufficiently young to attract them to the productive sectors of the economy. This is essential as part of a multi-pronged approach,

especially in achieving a societal change for economic development. As such, the situation is of a set of generalists in the state secretariat governing those in the productive sectors through policies, plans, programmes, regulations, etc. Quite naturally, a general education which is almost toil-free and easily earned, gains more importance in the society, more so because it fetches a government job with all possible regulatory powers, less efforts and other benefits attached to it. Therefore, what is being proposed is to deliberately devalue the tendency for general education by catching a sizable number of average students coming out of the schools to channelise them into a process of 'earn while you learn'. As an extension to this, the large scale subsidisation of general education shall be cut down and the surplus thus generated shall be paid as compensation for the work put in by those youngsters who are under the scheme of earning (for the work they do) while they study. It is also possible to induct professionals with expertise and entrepreneurs with proven abilities to senior administrative functions on a term of service basis. This would also add respectability to those engaged in wealth creation.

6.6.5 Earn while you learn - a model frame work

Education in Kerala is by and large highly subsidised. The practically free education coupled with large number of institutions in Kerala have, in fact, diluted the quality and effectiveness of learning. Being free, courses of higher

education offered are generally not based on the needs arising in the society. For the very same reason students also get enrolled mostly based on what is available rather than based on their specific tastes, aptitudes, and strengths. Thus, formal higher education, in a way, acts as a stop-gap arrangement before these youngsters throng the doors of government departments and add to the list of the unemployed. For the Government in power, this is also a temporary solution to the problem of unemployment as more often than not higher education (including Masters Degree programmes in Engineering) is unemployment in disguise. Now, the pertinent questions are:-

- Should higher education be subsidised at all? If it has to be at least partially subsidised, should it be on a highly selective manner in terms of the courses and beneficiaries? Having enjoyed subsidies and concessions for pretty long periods, it is almost impossible to bring in any drastic overnight changes. What is best possible may be the gradual implementation of schemes which would discourage the youth from whiling away their time in some colleges under the cover of a graduate course without any purpose. In other words, only meritorious candidates in any discipline (with some concessions to those belonging to the economically weaker sections of the society) should be able to pursue higher studies in such institutions or courses which are subsi-

dised by the government. This would naturally discourage the present trend of 'graduation for the sake of graduation' as now any non-technical degree course is practically free of cost. But, this approach would unleash a large number of youngsters who were in disguised unemployment. Therefore, it is also imperative to attract them to other skill-oriented programmes as part of a manpower planning approach in the overall economy. Here again government subsidies could be employed on the basis of merit.

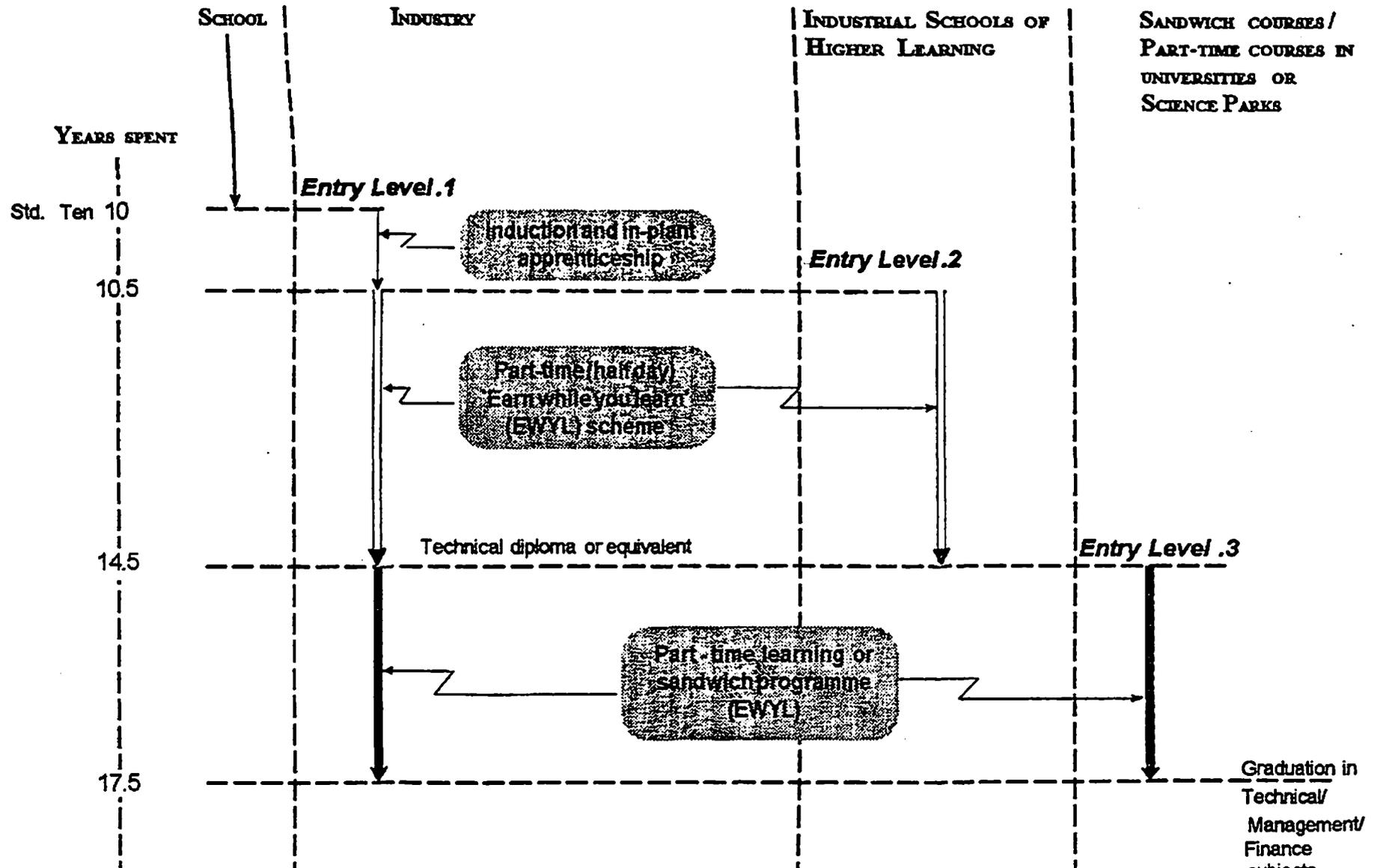
- Shouldn't there be system whereby a sizable number of the students coming out of the schools after tenth standard education are oriented or attracted towards the productive sectors ? For instance, through campus interviews average matriculates could be selected by such industries where they could be put through a on-the-job training with attractive stipends for a period of about two to three years till they qualify to become regular employees. Such induction should also take care of the further learning aspirations of these boys and girls through an 'earn while you learn' kind of approach. It is also possible to modify the shift duration (say, to 4 hours) for these new entrants so that half a day is available for continued higher learning which will enable them to reach any level in the organisation if they wish so. Such schemes could be easily implemented

in industrial areas by setting up *Industrial Schools of Higher Learning* (like the sports schools) as a joint project of a few like-minded industries , government and accredited Universities. Titan watches at Hosur in Tamil Nadu has partially attempted such an experimentation of selecting trainees from matriculates through campus interviews. By this process, it has been found that they were also not violating any labour laws. As such, the boys were found to be highly motivated, for the simple reason that they get a monthly pay of about Rs.3600/- besides other benefits such as subsidised food, health care, etc.¹⁰ But, it is quite likely that some irritant industrial relations problems might crop up as these boys become young men and get exposed to the general industrial work culture. It is also quite likely that they might get frustrated at a later stage when they find that they cannot come up the corporate ladder because they had come out of a formal education system at an early stage. The company expects some such set backs for this experimental approach and as such believes that such problems could be kept under control through in-house training programmes. But, it is very strongly felt that in-house training may not fetch proper results. Instead, what is being suggested here is to make a formal higher learning possible through a system as described earlier. A system similar to 'sandwich courses' as tried out in certain universities could

be introduced to facilitate these boys and girls to pursue their higher studies. The usual sandwich courses allow students to spend alternate 6 months at the college and a chosen industry. At the industry the incumbent is more or less treated as an apprentice trainee and therefore may not really benefit monetarily or even in terms of experience. What is being proposed here is an 'earn while you learn' system. The concept of Science Parks if introduced would facilitate easy implementation of this system of learning (see 'Science Parks' described below). This would also facilitate a healthy exodus of a few who would look for a change of job to other organisations. Anybody could also come up the corporate ladder without getting punished for having left the school earlier. Considering the 'Thrust Industries' proposed for Kerala, majority of which are in hi-tech areas and human capital based ones (see 6.9.1 below), the above system of education may be highly successful. For instance fields such as electronics, bio-technology, hotel industry, tourism, etc. give enough flexibility and scope for such an operation. A model frame work for the concept of *Industrial Schools* is shown in Fig. 6.8. The industrial schools should emphasise on inculcating entrepreneurial qualities in the students whereby at a later stage sufficient 'spin offs' of small enterprises take place around the parent organisation.

Fig.6.8

A Model Framework for Industrial Schools Concept



S15

6.6.6 Importance of industry-varsity interaction

Presently, the average quality of research carried out in the technical institutions is not very high. The bulk of the undergraduate student projects does not involve any new application or development. They mostly involve a recycling of available knowledge. This may meet the training requirements of the students, but still is inefficient use of resources. Though, it is unrealistic to expect all these projects to be utilitarian in a commercial or social sense, with proper coordination some of these projects could be productively utilised. The university-industry interaction would, in fact, accrue benefits to students, faculty members, the university institutions and industries. Students would benefit from the relationship with industry by being exposed to practical problems, by improving their prospects for employment through internship and summer employment as well as special recruitment programmes that are established through such relations.

Faculty members may individually benefit by industrial contacts that lead to consulting opportunities with accompanying additional income. Consulting also provides the faculty members with increased awareness of the state-of-the-art as practised in industry, and provides material that can enrich class room teaching as well. At the same time, the benefits industries would derive from such interactions will be enormous. The net result of an effective industry-varsity inter-

action does not end with the mere benefits to both the parties involved in the affair. On the other hand, this results in drastic positive changes in the societal value systems with regard to education, industry and employment.

Science Parks

A University investing in an industrial park may be a rare phenomenon in India. But, 'University of Warwick Science Park Ltd.' is a typical name of one among the 33 Science Parks promoted jointly by various Universities, Government development agencies, local bodies and private companies in the United Kingdom.¹¹ A Science park is a property-based initiative which has formal operational links with a University or other Higher Educational Institution, or major centre of research. It is designed to encourage the formation and growth of knowledge-based business and other organisations normally resident on site. It has a management function which is actively engaged in the transfer of technology and business skills to the organisations on site. Although, in the United Kingdom, science parks accommodate only about 5 per cent of the national population of technology-based firms, where science parks do exist in an area there is evidence that they are a major location for newly formed high technology firms. Preliminary results from a survey of high technology firms in the Coventry and North Warwickshire areas suggest that about a third of new high technology firms formed in the area in the last four years have located on the War-

wick Science Park, or would wish to do so if space were available.¹² Considering its high human capital formation, Kerala could experiment with at least one Science Park to provide the necessary impetus for the formation of knowledge-based business and high value adding science-based companies.

6.7 The Regional Approach

One of the conclusions which has naturally emerged from the analyses so far done in this thesis is that a given political unit is not necessarily of the right size for economic development. The development policy for 'India-as-a whole' would not be effective in reaching the remotest corners of this vast country. In the usual course of things development would concentrate in and around metropolitan cities. As Schumacher (1973) had put it, this results in twin evils of mass unemployment in backward regions and mass migration to the metropolitan areas. The result of such a development will be an ever widening regional disparity whereby the rich becomes richer and the poor becomes poorer.¹³ From this point of view, very generalised national level approaches for industrial development will be ineffective in somewhat isolated regions like Kerala which also have peculiar regional characteristics. Therefore, it is important to adopt a 'Regional Approach', especially to develop those regions which were left behind during the earlier plan periods.

It had been the experience the world over that the overall development of smaller countries such as Singapore, Korea, Japan, etc. have been comparatively easier, probably due to the low level of diversities within the country. The example of Italy is often quoted to stress upon the importance of the regional approach. Southern Italy and Sicily did not develop merely as a result of successful economic growth in 'Italy-as-a-whole'. Italian Industry concentrated mainly in the North of the country, and its rapid growth did not diminish, but on the contrary intensified the problem of the South. Competition from the North destroyed production in the South and drained all the talented and enterprising men out of it. Conscious efforts had to be made to counteract these tendencies, for if the population of any region within a country is by-passed by development it becomes actually worse off than before. This resulted in mass unemployment, and mass migration.¹⁴ The evidence of this truth can be found all over the world, even in the most highly developed countries. Kerala's experience is somewhat similar to this.

It is not possible to give hard and fast definitions with regard to economic development. Much depends on geography and local circumstances. A few thousand people would be too few to constitute a region for economic development; but a few lakhs of people in a region with specific characteristics could be treated differently. Apart from having a homogeneity in terms of 'economic structure', the 'cultural structure' of

the region also plays an important role in the success of any developmental effort. Analyses done earlier have also revealed that the regional approach simply cannot be one dependent on the natural resources available there, especially in the context of modern industry. Singapore, for instance, with practically no natural resources and very negligible agricultural produces have an active industrial base in the sectors of oil products, electrical, electronics, ship building, beverages, textiles, garments and machinery manufacturing. The whole of Switzerland has less than six million inhabitants; yet it is divided into more than twenty 'cantons', each of which is a kind of development district, with the result that there is a fairly even spread of population and of industry and no tendency towards the formation of excessive concentrations.¹⁵ The bigger the country, the greater is the need for internal 'structure' and for a decentralised approach to development. If this need is neglected, there may be no hope for those regions which are underdeveloped.

Prior to the introduction of its rural industrialisation programmes Chinese rural areas did not have access to the essential industrial outputs such as cement, steel, etc. Even when available, these goods had to be secured by the rural areas at uneconomic prices due to high cost of transportation. The Chinese solution to this problem was to institute massive rural small-scale industrialisation programmes with a view to meeting the rising demands of the agricultural sec-

tor. This involved considerable scaling down of capital-intensive technologies and upgrading the available indigenous technologies.

Given the fact that in Kerala industrialisation is somewhat impeded by certain basic regional aspects such as scarcity of land, high density of population, non-availability of primary industrial raw materials and geographical alienation from the other industrially developed regions of the country, what is important is to formulate a clear policy as to what kind of productive sectors could be developed in this region, be it industry, tourism, health-care or anything of that sort. Here, certain comparisons with other regions would become useful.

6.7.1 Industrial development experiences in other regions

Ideally speaking, the development experiences in other states in India should be compared with a view to adopt successful developmental approaches which are suitable to Kerala. Dhola-
kia (1994) had, in fact, undertaken such an exercise and had concluded that the roots of India's growth acceleration can be traced to the growth experiences of a few states such as Maharashtra, Gujarat and Uttar Pradesh.¹⁶ He had concluded that Maharashtra had emphasised on the strategy of physical infrastructural development leading to industrialisation and pointed out that Uttar Pradesh was emphasising more on primary production which, in turn, led to industrialisation

and growth of services. Gujarat turned into high growth state in 1973-74 when its tertiary sector experienced sharp increase of 3.11 percentage points growth followed by a substantial growth in the secondary sector. Later on Gujarat also emphasised on the strategy of physical infrastructural development for industrialisation. Madhya Pradesh, on the other hand, was pointed out as a beneficiary of the spurt of activities in the neighbouring states of Maharashtra, Gujarat and Uttar Pradesh, over continued period of time. Assam was identified as a region which represents a new impulse of growth within the national economy, mainly on account of the discovery of oil. He pointed out that while Himachal Pradesh represented a case of exclusive tertiary sector-led acceleration, the case of Karnataka resembled the one of Maharashtra. Both the states of Punjab and Haryana have been identified as high growth states in the primary sector which had also achieved a break through in their industrial growth during the early 1980s. The strategy of concentrating first on the tertiary sector growth which succeeded in Gujarat to make it a leader did not succeed in Bihar and Rajasthan. Dholakia, then adds :

Among the states experiencing significant deceleration in their growth rate over time, the case of Kerala, is very puzzling. Kerala experienced a marked deceleration of 2.05 percentage point in the growth of total SDP in the year 1972-73. In the same year, it also experienced significant deceleration in its tertiary and secondary sectors. Whereas

it is acknowledged widely that Kerala opted for a growth strategy based on human capital development, it is difficult to explain a significant downward shift in its long-term growth rate...

Dholakia, in an earlier study¹⁷ on the regional aspects of Indian industrialisation, had brought out the picture of a North-South divide in industrial development. He suggested that political factors must be very important in explaining the phenomenon. He also concluded that the sharp increase in the long-term growth rate of the Indian economy achieved in 1981-82 is not observed in all the states but only in six to eight state economies.

Kerala's Insularity

From the analysis so far done in this thesis with regard to the specific regional characteristics and also the earlier developmental experience of Kerala (which was somewhat out of tune with the national trend), one aspect which comes to surface is Kerala's insularity within the large political entity of Indian Union. This insularity is mainly in terms of geographical remoteness, social development background, quality of life (which is comparable with many developed nations) and economic indicators, all of which have been analysed threadbare in the earlier chapters. The drawbacks associated with this insularity become all the more severe when factors such as acute scarcity of land, absence of

primary industrial and energy raw-materials, etc. are considered. These very aspects stand as impediments for not only adopting popular and successful national level industrial developmental approaches (Industrial Growth Centres, for instance) but also limit the entry of many large business houses into the state. The earlier analyses have also shown that Kerala needs an approach different from the generalised national level industrial development models. In fact, considering its strategic location in the international sea route through the Indian ocean and also its history of direct participation in world trade as early as in the eighteenth century, a new approach to overall economic development seems to be possible. In this context, it was felt appropriate to have a quick look into the industrial development experiences of a few economically advanced smaller countries in the world such as Singapore and South Korea which, like Kerala, had more disadvantages attached to their regions for any rapid industrial and overall economic growth. This was also done on the grounds that while Kerala's regional characteristics are somewhat different from many other states in the country, some of its problems and prospects from the point of view of industrial development resembled those of the aforesaid smaller countries in the Asia-pacific region.

The Singapore experience

In 1959, Singapore had an unemployment rate of 5 per cent, a serious housing problem and high rate of population growth of

3.3 per cent.¹⁸ At that point of time when the People's Action Party (PAP) Government assumed power, the economic prospects of Singapore had an uncertain future because of (a) Singapore's total dependency on entrepot trading and increased direct trading by Singapore's neighbours (b) high population growth rate and (c) Singapore did not possess any natural resources or rich hinterland upon which it could rely on to solve its economic problems. The only points of strength were its strategic location, natural harbour and human resources (somewhat similar to Kerala; but, Kerala does possess many other natural resources). Therefore, strong and committed government intervention was required to achieve economic development of the region. Accordingly, as early as in the 1960s, the Singapore Government identified two prerequisites for industrialisation to succeed there viz; 'active government support' and the offer of 'better package of incentives to ensure commercial viability of industries'. In August 1961, the Economic Development Board (EDB) was created as the government's executive agency for industrial development. EDB's main thrust was to attract foreign investors and provide all assistances. The EDB began its task of transforming the entrepot-based economy into a manufacturing one by relying initially on a strategy of import substitution directed at the Malaysian market. This strategy provided protection for infant industries, fiscal incentives and industrial infrastructural facilities. However, this strategy was not very successful, judging by the slow growth of GDP

(5.5 per cent) during 1960-65.¹⁹ Singapore's poor economic performance during this period was attributed to three major reasons. They were (a) the emphasis on social investment during this period, as housing and education accounted for nearly 30 per cent of public expenditure. (b) the failure of the idea of wider common market with Malaysia.

The loss of Malaysian market meant that Singapore had to sell its products to the world market. Consequently the government changed its strategy to *export substitution* which replaced exports of labour-intensive agricultural products with exports of labour-intensive manufactured products. The thrust was given to encourage export production, the application of science and technology to industrial operations and the accelerated inflow of foreign investments. In Singapore, government legislation, however, was not limited to attracting foreign capital into industries. But, it also extended to discipline the labour force as the government had realised that fiscal incentives alone were insufficient to attract and retain foreign investment. The government also realised the importance of political stability. A survey of 101 manufacturing firms in Singapore conducted in 1985 confirmed the importance of political stability as a pre-condition for foreign investment as about 24 per cent of the companies identified political stability as the most important reason for locating their operations in Singapore. This is one aspect which the planners, the policy makers and the society

at large in Kerala should take note of while they cherish the hope of attracting foreign industrial investments into the state. Yet another lesson Kerala should learn from Singapore is its achievement in the field of industrial relations (Table 6.2).

Table 6.2

Man-days lost in strikes in Singapore (1946-77)

Year	No. of strikes	Man-days lost
1946	47	845637
1948	20	128657
1950	1	4692
1952	5	40105
1954	8	135206
1956	29	454455
1958	22	78166
1960	45	152005
1962	88	165124
1964	39	35908
1966	14	44762
1968	4	11447
1970	5	2514
1972	10	18233
1974	10	5380
1976	4	3193
1977	1	1011

Source : Jon S.T.Quah, 'Political Consequences of Rapid Economic Development : The Singapore Case', in Stuart S.Nagel (ed.) *Asian Development and Public Policy*, Mc Millan, 1994, p.7.

The Industrial Relations Act was amended in 1968 to ensure discipline among the workers by excluding from collective

bargaining such personnel matters as transfer, promotion, termination of service due to reorganisation or redundancy, and the assignment of duties to employees. The government also introduced Employment Act of 1968 by which streamlining and standardising the minimum terms and conditions for work for all categories of employees was done. Then from 1968 to 1972 the Singapore economy grew rapidly at an average annual rate of 13.4 per cent which also resulted in severe labour shortage. The rapid growth during this period is attributed to the following factors :

(a) Dynamic and resourceful political leadership with focus on economic development (b) The measures introduced to establish industrial peace (c) Economic policies which emphasised outward-looking development, private enterprise, manpower development and the fuller utilisation of untapped labour resources (particularly domestic female labour supply) and (d) The peculiar phenomenon of the absence of opposition in parliament from October, 1966 (of course, coupled with the rare but fortunate leadership with commitment to the economic prosperity of the region).

By 1979, Singapore's growing labour shortage meant that it was gradually losing its comparative advantage in labour-intensive industries. The government, then, appropriately realised that in order to continue to grow, the economy will have to move into skill and capital-intensive industries producing high value-added goods. The 'second industrial

revolution' began in 1979 with the adoption of new policy measures by the government.

The major policy instruments employed by the government to launch the 'second industrial revolution' in 1979 were a wage-correction policy to accelerate upward wage adjustments and induce labour saving; promotion of automation, mechanisation and computerisation to foster labour substitution and labour productivity; reduced dependence on foreign labour; greater emphasis on manpower training and skills development; and investment-promotion policy focusing on high value-added, skill-intensive and technology-intensive investments; and strong emphasis on research and development activities. In a nut shell, the economic development in Singapore from 1960 to 1990 witnessed the following major approaches :

- (a) shift from a reliance on its strategy of import substitution to one of export substitution after separation from Malaysia in August, 1965.
- (b) the 'second industrial revolution' in 1979 to encourage the development of capital-intensive, high-technology and high-value-added industries.

Lessons from South Korea

The transformation of the Korean economy from one of the poorest countries like any other Asian country 40 years ago to an industrialised country today is a remarkable history of

the most rapid growth for any country in the world. The Korean war (1950-53) had destroyed almost two-thirds of productive capacity and almost one million people were killed. After initial uncertainty, the country embarked on sustained economic development in 1961. During the following 30 years, the average annual GDP growth of 7.0 per cent per annum has been one of the highest in the world for such a prolonged period.²⁰

It is widely known that the success of South Korean economy is largely due to a strong state, and especially due to its ability to channel public and private resources into producing a dynamic industrial sector.²¹ Park Chung Hee inherited a state with administrative and coercive machinery that was introduced during Japanese imperial rule and was later reinforced during Syngman Rhee's reign and in the aftermath of the Korean war. When Park took over the government, South Korea was virtually free of old, traditional business organisations and societal pressures. He also benefited from his military background and was able to dissociate himself from former civilians, politicians and businessmen tied to the corrupt Rhee regime. As the business sector and workers were too weak to organise for collective action, it was relatively easy for Park to build a 'developmental state' that was autonomous and strong enough to command development programmes guided by the principles and priorities dictated by the state.²² Park established insulated policy-making institu-

tions and filled them with a competent and professional cadre of bureaucrats. The Economic Planning Board (EPB) was one such organisation which had powers cutting across the domains of economic agencies such as the Ministries of Finance, Commerce and Industry, Agriculture, Fisheries, etc. Korea's rapid industrial growth is totally indebted to a strong state and 'proper policies'. The government was keen enough to ensure that the evolving economic policies were a continuation of the past ones, but at the same time the economy was pushed towards more and more liberalisation and structural readjustments to fit international market requirements.

As such, the Korean economy is characterised by export oriented industrialisation. Korea's domestic market is relatively small compared with its industrial capacity and this made the economy heavily dependent upon external markets. For instance, Korea's export earnings are equivalent to as much as 40 per cent of its GNP.²³ Because of this, state had been more cautious and restrained in manipulating economic policies for the sake of pure political gains. This, in turn, allowed policy making in economic sectors more independent and apolitical. In other words, for Korea, political control of the economy was more important than in countries with larger domestic markets or less dependency on world markets. Political instability or labour unrest would affect Korea's international standing, and therefore, the state pays keen attention to such things as industrial peace, political

legitimacy and stability in economic policies than those countries whose economies depend less on the world market.

As the size and complexity of the economy increased, the private sector and social groups became increasingly vocal about the negative aspects of Korea's state-centric economic development policy. Social criticism and political attacks against state intervention in the economy also rose sharply. Ahn (1994) had argued that from the recent experiences in South Korea and elsewhere, it should be considered that the factors leading to the downfall of old regimes are not the same as those required for the successful consolidation of democracy. Therefore, the strategy for democratic consolidation should be different from the one that overthrows an undemocratic power and that popular support of democracy on its own cannot guarantee a successful transition without the help of economic and institutional elements.²⁴ Finally, successful democratic consolidation does not necessarily mean the introduction of a weak state. Studying about South Korea, Ahn concludes :

Ironically we have come a full circle to conclude that democracy needs a strong state. However, a strong state here does not mean a return to the old system. In a truly democratic state the authority of state institutions should be newly empowered by civil society, and thus agencies of the state may grow even stronger than before, though in a different way.

The Hong Kong experience

Hong Kong is one of the few Third World communities that showed rapid progress in economic development, mostly based on the development of the manufacturing sector. The colony comprises 236 islands and islets and a small part of the main land east of the Pearl river, the total area being 1034 sq. km. Most of the area is mountainous and many of the islands are virtually waterless. Only 13 per cent of the total area is under crops, livestock and fish farming. Bulk of the food for the population has to be imported. Before the Japanese wartime occupation Hong Kong existed on entrepot trade serving all far eastern countries. But the greater part of its business was with China. Following the war, trade with China was drastically reduced and new markets were sought. But, such trade was inadequate to sustain a large population and there began the transformation from a trading into a manufacturing economy.²⁵ The decision to develop the manufacturing industry was the only possible solution. But, the colony virtually had no raw materials, fuel or power with which it could develop industry and could only capitalise her two major resources viz; its position in relation to world seaways and trade, and an abundant supply of cheap labour.

Over the last 20 years there had been an amazing growth both of industry and in the degree of sophistication of its products. In 1951 the annual per capita income for its two

million people stood at £ 85; in 1977 for an enlarged population of 4.5 millions it became £ 1250. Unlike in the case of Singapore and South Korea there was no significant formal development plan ever been promulgated by the government. Instead, the government relied upon *laissez-faire* policies embodied in, free enterprise, free trade and minimal taxation. The government's role had been to help industry to function efficiently by providing a stable framework of law, order and adequate infrastructure. The unique character of Hong Kong's material and human situation had forced development along limited channels. Its industrialisation was by and large dependent upon the advantages of low wage rates and high productivity of labour. Nearly all the workers and most of the entrepreneurs were Chinese, who had world-wide reputation for diligence, perseverance and thrift. They are also dexterous, quick to learn and shrewd in perceiving opportunities.²⁶

Foremost among the circumstances which were helpful to the colony's development was its geographical position in the sea and its possession of one of the best harbours in the world. These led to the growth of a great port with associated repair and service facilities and commercial connections. The limitations of Hong Kong's situation and resources had brought the classic response of fabricating raw materials that are light relative to their value and that require little fuel in the manufacture. And, now, this is a country

successfully living by the export of its manufactures. This was largely possible due to a government committed to the minimum of interference with the development of the economy and the efforts and driving force of dedicated and disciplined people.²⁷

The colony has already moved away from the stage when it relied upon low wage industries to give competitiveness. It has broadened its range of products and introduced new and advanced technologies, with more emphasis on research and innovation. Hong Kong had been assiduous in seeking out and fostering overseas markets, attending trade fairs all over the world and sending out trade missions.

Overall lesson

In general the successful economies in the Asia-pacific region had two common features : all had stable governments and all were development oriented with active private sector participation. Goh Chok Tong, who became Singapore's second Prime Minister, while addressing a seminar in Singapore on the 'political pre-conditions' for economic development said:

First, stable government. A stable government is a prerequisite for economic development. Without it, private investors will not be able to make long-term investment decisions... A stable Government alone is not enough for economic development to take place. It must also be development-oriented... Economic development can succeed

only if the government is totally committed to it. Politics must not be allowed to interfere in the development process. The government would have to make policy decisions on the basis of economic logic rather than on political ideology ; otherwise, the results will be disastrous.²⁸

It would be interesting if a close correspondence could be found between a country's strategy for economic development and degree of freedom and democracy its citizens enjoy. But, there appears to be no correlation between economic policy and nature of political regime. However, the experiences of small regions like Singapore, South Korea and even European countries such as the Netherlands with practically negligible resources, highlights the importance of political will, commitment and continuity to foster economic development. From this point of view it will be appropriate to look into the bare minimum political pre-conditions for economic development, more so for a state like Kerala with very high political instability.

6.8 Political pre-conditions for Economic Development

Spengler (1960) had identified four minimal political conditions for economic development viz; minimal public services, growth-supporting and growth-stimulating arrangements, personnel, and political instruments.²⁹ Malcolm Gillis et.al. (1992) had pointed out that although economic development in England during the Eighteenth century occurred with little

direct assistance from the government, the situation since then has been such that successful growth was not really possible without the active support of a government.³⁰ According to them, if a government is unwilling or unable to play a positive role in promoting economic development then the government itself can be considered a barrier to development or a fundamental cause of poverty. They have identified three political pre-requisites for economic development - political stability, political independence and government support for development.

Political stability

Governments must be able to create and maintain a stable environment for modern enterprises, whether public or private. Civil war, sustained insurrection, or invasion by hostile forces must be avoided as far as possible. Investors will not put their money into projects that pay off only over the long run if, in the short run, a change of government could lead to the projects being confiscated or rendered unprofitable by new laws and other restrictions. Where instability is particularly rife, a common solution among the wealthy has been to stop investing in the local economy and to ship off a large part of their wealth to banks in Switzerland or to indulge in conspicuous consumption.

Political independence

Political independence is a precondition for the promotion of economic development as the experience of most colonial governments has shown that they made 'only limited investments in training local people, in developing electric power resources, or in promoting industry'. These governments were interested in creating a stable environment solely for the benefit of a small number of traders and investors from the colonising nation, but not for the benefit of the local population as a whole.

Governmental support

Government support is the most important prerequisite for economic development. Without such support, sound policies for promoting economic growth will not be implemented or even formulated in the first place. However, policies designed to promote economic development do not benefit everyone in the same way and might even result in adverse consequences for some groups. On governmental support, it was further argued that:

If those who become worse off in the short run are in a position to topple the government, that government will be unwilling or unable to take the steps necessary to promote growth. This explains why some governments have not been able to devalue their currencies, eliminate overstaffing of public enterprises or remove subsidies on basic consumer

goods, even when such policies made good economic sense in the interests of the nation as a whole. One major reason why many nations are still underdeveloped is that their governments have been unable or unwilling to pursue policies that would achieve development.³¹

This, in other words, points to the legitimacy and power of the incumbent government. The greater the legitimacy and power of the incumbent government, the greater will be the willingness or ability to pursue policies to promote economic growth as it cannot be overthrown by those groups who are against such policies or who might be adversely affected as a result of such policies. This, in fact, was one of the major problems Kerala faced due to the frequent changes of governments formed with all possible permutations and combinations for coalition governments. Many a time these coalition governments were formed with parties having diametrically opposite ideologies and philosophies. Yet another problem in Kerala was the near-balanced strength of the Left wing parties and the Right of the Centre Congress and its allies. This made the overall political situation vulnerable to frequent changes. These changes of governments in power resulted in frequent reversal of policies and priorities. In sharp contrast to this phenomenon, a look into all the successful economies in the Asia-pacific region would bring out two prominent features viz; stable governments in power and development with active private sector participation. A

lesson to be learned from this is that the economic development of a region can succeed only if the government is totally committed to it and the society at large is kept motivated and influenced through a multi-pronged approach. Over emphasising on certain areas on an ad hoc basis and frequent reversal of priorities and policies would demoralise the society which, in turn, would adversely affect the entrepreneurial qualities of the people.

6.9 'Industry' redefined for Kerala

In a conventional approach, the word 'industry'³² conjures up visions of mechanised factories. But, the advancement of bio-sciences in the latter half of the twentieth century has widened the canvass of industry. A plant breeder growing genetically engineered seeds on a commercial basis or a sericulturist breeding silk worms and extracting silk could also be classified as industrialists, and so is the case with those in health-care and hospitality industry. Thus, in the modern context the barriers between the primary, secondary and tertiary sectors as propounded by Colin Clark³³ is gradually fading away. Therefore, in the changed economic environment industry may be redefined as an organised economic activity involving a process of conversion for value addition aimed at selling its products or services. The analyses so far done with regard to the industrialisation of Kerala underscores the need for such a broader and holistic approach. The earlier analyses have proved that Kerala is not

an ideal location for a large number of huge industrial units, especially process industries with effluent problems and also those industries in the core sector for a variety of reasons. The most important reasons are the acute scarcity of land, highly dispersed human settlement pattern, and also the need for protecting overall natural lushness and greenery. Any frantic effort to industrialise this region through approaches which were successful elsewhere might damage some of the unique features of this region.

Yet another major impediment, at least in the earlier periods of industrial development of the country, was the absence of primary industrial raw materials such as iron ore, bauxite, etc. and also the absence of energy raw materials such as coal and crude oil. Therefore, some of these inherent or root factors such as acute scarcity of land, the need to protect the rich flora and fauna and the absence of primary industrial raw materials demand deviation from the conventional approach towards industrialisation. Kerala's remarkable social development without economic growth is another aspect which should support the view point to take an 'off-beat' track towards economic prosperity. From this point of view developing the manufacturing sector alone may not be acceptable as the panacea to the economic stagnation of Kerala. On the other hand, alternative strategies which might also demand identification of new 'Thrust Areas' for economic growth may have to be adopted.

6.9.1 Thrust Areas

In the process of evolving the solution diagrams through the linking of the Causes and Effects, many of the thrust areas for industrial development (with the redefined meaning and scope) in Kerala have naturally come to surface. They are: Electronics, Bio-Technology, Soft-ware development, Tourism and Health care, all of which except Tourism are by and large human capital-based and are also more or less 'foot-loose' type of industrial activities. Apart from this, a further focusing on the findings of the various analyses done earlier is required to make a comprehensive listing of the thrust areas for economic activity.

The conventional approach in identifying the thrust areas for industrial activity will be to link it to the resource endowment, the skills available and the market demand. It has been proved earlier that resource endowment *per se* does not mean much as far as the industrial development of a region is concerned. Kerala's case is a classic example for this. Much would depend upon the nature of the human intervention to convert the 'passive' resources into active element of an economic process. Tourism is one such area where natural beauty alone cannot set favourable conditions for the growth of this sector. Kerala is yet to capitalise on its unique and major resource, viz; its scenic beauty, lush green forests, back-waters, lengthy sea coast and canals. What has been tried so far is a lethargic experimentation with run-of-

the-mill tourism projects, mainly by creating concrete jungles at tourist spots. Here again, the planners, the policy makers and the implementing authorities of the state failed to adopt a holistic approach of developing tourism. The failure was not only in identifying region-specific projects but also in taking the society forward (a sort of societal marketing) along with these project ideas. The insecure feeling in many of the tourist spots of Kerala, the indifference of the government employees and the local society and also regular events of 'dharnas', processions, 'bandhs', etc. are unwelcome elements in a region which intends to capitalise on its potential for tourism-based economic activities. In addition to this is the disregard for providing the right information, not even through simple mechanisms like the signboards, route maps, bus route numbers, comprehensive tourist guides, personal guidance, etc. Thus, though tourism could be classified as a thrust area, the selection of the activities under these areas is of prime importance, so also is the importance of achieving societal changes conducive to the success of these activities. What is equally important is to do a sort of brand positioning of Kerala as a tourist destination in the global tourism market. Entrepreneurship Development Programmes aimed at systematic identification of potential entrepreneurs and training them to set up viable and attractive projects related to tourism will go a long way in improving the quality of tourism products and services. As such, much of the training programmes organised in this

sector are primarily aimed at generating white and blue-collared employees.

The next approach towards industrial development is to go by the skills available. The skills in Kerala may have to be then classified into those in the traditional sectors and those in the non-traditional sectors (Table 6.3). While all the five areas listed under traditional skills even now provide ample opportunities for economic activity, the success would largely depend upon how far these sectors could be modernised and revitalised to cater to the needs of an open global market. However, these areas could still be considered thrust areas for industrial activity in Kerala, especially on account of the changing attitudes towards a more eco-friendly living habits, and the increasing demand for natural products, bio-degradable materials, etc.

Table 6.3

Nature of Local Skill Availability

<u>Traditional</u>	<u>Non-traditional</u>
(a) Coir	(a) High literacy level, generally intelligent work force with higher levels of educational background.
(b) Cashew	
(c) Handloom	
(d) Handicrafts	
(e) Ayurveda and other traditional health care	(b) Large number of technically qualified, medical and paramedical professionals presently employed in different parts of the country and abroad.

The skills listed in the non-traditional areas give enough reason to promote foot-loose modern industries . Apart from these foot-loose modern industries, Kerala's strength even in terms of manpower in the health care related fields could be utilised. Kerala should ideally be emphasising on an already developed private health care mechanism with a view to convert it into super - speciality facilities. This, coupled with advanced medical education itself may put an end to the present drain on the savings of Keralites who pay enormous amount of capitation fee to the private medical institutions in the neighbouring state of Karnataka.

Another approach is to resort to the market demand. It is too well known that Kerala is a highly potential consumer market. Though a state whose share in all-India Net Domestic Product is gradually declining, Kerala's household consumption expenditure has been growing at an annual compound growth rate of 13.3 per cent (from 1972-73 to 1986-87), the corresponding all-India figure being 11.5 per cent.³⁴ Kerala has only about 3.5 per cent of the country's population, but consumes about 20 per cent of bath soaps made in the country and provides excellent market for almost 15 per cent of the consumer items produced in the country. Kerala also consumes 10 per cent of the medicines manufactured in India.³⁵ The sample survey among SSI units had also revealed that no specific industry-group was showing poor market demand (see

Chapter 3). All these point to the simple fact that Kerala provides ample opportunities for a demand-based approach in selecting projects on a case to case basis, also considering other factors which would influence the overall viability of the projects. However, a variety of industries making drugs and pharmaceuticals including ayurvedic drugs, plastic products, export-oriented garments, value added leather products, cosmetics, soaps etc. could be suggested as potentially viable project ideas under a broad classification of demand-based foot-loose industries.

It was also borne in mind that while selecting thrust areas in the manufacturing sector, possibility of creating enough inter-linkages through backward and forward integration (resulting in the development of the small-sector) is also taken care of. From this point of view it is also equally important to create a few large industries (as reflected in the solution diagrams) with the objective of creating 'incubator' organisations which would eventually spawn smaller units as 'spin-offs', the ultimate objective being creation of an effect of 'circular and cumulative causation'. In other words, what shall be attempted is to create an environment which provides the benefit of agglomeration of inter-linked industrial activities. Another important observation with regard to the developmental approach in Kerala is the failure to exploit the highly strategic location of Kerala in the Indian ocean. In fact, Kerala's position offers ample

opportunities for developing entrepot trade and also fueling facilities for aircraft. But, this requires some amount of deliberate support from both central and state Governments in terms of tax concessions and duties, specifically aimed at developing this region. The entrepot trade could be extended to 'import, value add and export' activity. Based on all the above arguments the entire concept of Thrust Areas could, now be summarised as given in Table 6.4.

Table 6.4

Thrust Areas

Sl.No.	Thrust Area
A	Traditional Industries
1.	Coir
2.	Cashew
3.	Handicrafts
4.	Handloom
B	Modern Industries
1.	Electronics
2.	Bio-Technology
3.	Soft-ware development
4.	Rubber
5.	Spices and Oleoresins
6.	Ayurvedic Drugs
7.	Marine / Sea Food Products
8.	Garments for exports
9.	Leather footwear and garments for exports
10.	Drugs and pharmaceuticals.
11.	Minerals based (China clay, Silica sand, Rare-earths etc.)

Sl.No.	Thrust Area
C	Other areas
1.	Tourism <ul style="list-style-type: none"> - Backwater Tourism - Adventure Tourism - Ayurvedic Tourism - Yoga and health clubs - Heritage, cultural and pilgrimage tourism - Holiday resorts
2.	Health care - Ayurvedic and herbal cure <ul style="list-style-type: none"> - Allopathic Super speciality hospital and Medical College - Naturopathy
3.	Aquaculture
4.	Entrepot trade.

6.10 The need for a Master Plan

From the arguments so far made it is more or less clear that the industrialisation of Kerala is a highly complex problem demanding a multi-pronged and off-beat approach. Here, the larger interest of the society is of utmost importance as any blind copying of industrial development approaches in other regions of the country could result in a major catastrophe to this ecologically fragile region. Such a holistic approach becomes almost impossible without a Master Plan which would prevent ad hoc developmental plans and programmes. The Master Plan would facilitate the integration of various factors and agencies and would also enable striking a balance between social costs and benefits.

Though the Master Plan shall be made on a long term basis (say, 10 to 15 years) there could be sub-plans on short term (say, 2 years) and medium term (say, 5 years) basis. While short term Plans are meant to attend to the immediate developmental needs to keep the region moving ahead exploiting the immediate opportunities, the long-term plan could aim at aspects such as inculcating proper value systems in the society, re-orienting the educational system, etc. Therefore, depending on the plan period, the various ministries, organisations, departments and agencies involved and their scope of involvement would also vary.

The Master Plan shall give projections with regard to the probable investments in various sectors, and the phased requirement of infrastructural facilities (which includes, power, water, land, sheds, etc.). Based on the projected growth, it should also be possible to do a need-based manpower planning by resorting to a 'Pull system' rather than the present 'Push System'. Based on this the educational institutions could plan their courses and curricula to match the needs arising in the productive sectors.

As seen earlier, attainment of societal changes favourable to entrepreneurial activities may be one of the most important pre-requisites for the industrialisation of this region. The Master Plan shall also propose ways and means to achieve this against a time frame. Achieving societal changes could be planned for on a long term timeframe. Workable programmes

have to be chalked out to generate entrepreneurial traits and characteristics in the society through a multi-pronged approach. But, apart from stimulating different segments of the population, it is also imperative to provide meaningful support facilities on short term and long-term basis. Providing both the 'stimulatory' and 'support' facilities should, therefore, be an integral part of a 'Master Plan' for the industrial development of the region. As such, various departments and development agencies function as disparate bodies with very little integrated approach. This is typically a problem of the inability to address to the multifarious factors affecting the success of any developmental effort. While certain organisations such as the Industries Department play stimulatory roles, a few others such as the Electricity Board, with very little links to developmental and promotional departments, are vested with the task of creating the support facility. In the absence of any integration between the functioning of these departments, stimulatory and support activities also take place in an unrelated manner. To solve this problem, about a year ago the overall responsibility of the industrial development of a district was assigned to the District Collectors. But, Collectors who are mostly overloaded with a variety of unrelated activities cannot be expected to perform this task with focus and involvement.

Another major factor is the lack of 'unity of direction' in pursuing with the developmental programmes. Unity of direc-

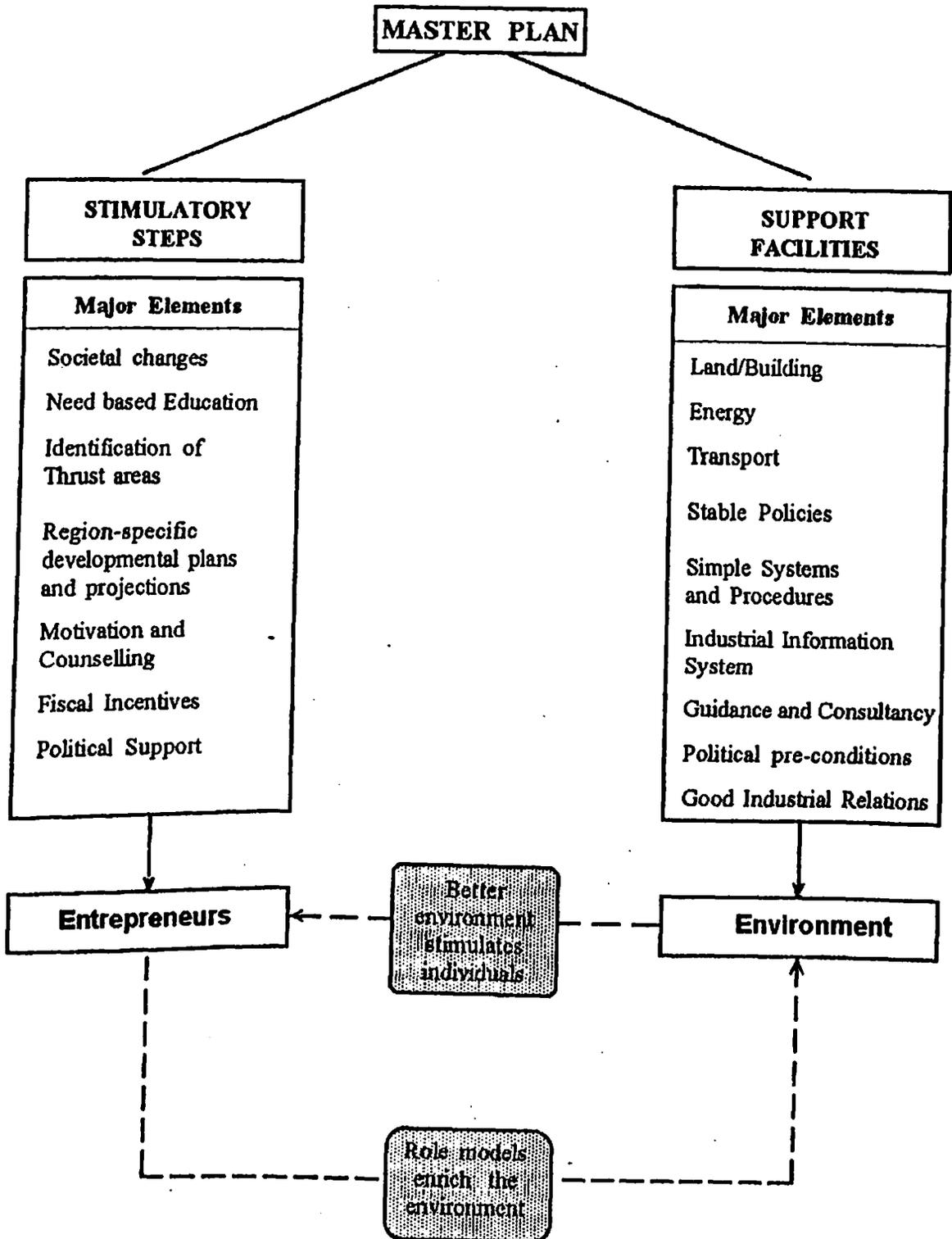
tion is, in fact, one of the basic principles of management. However, in an over-emphasised and uncontrolled democratic set up with multitudinous political parties forming coalition governments, it is only natural to find that this principle cannot be safeguarded. The situation becomes worse every time when the party or the coalition parties in power changes which inevitably results in reversal of priorities and policies. As seen earlier, one of the reasons why Singapore could achieve remarkable economic prosperity without having practically any natural resource to depend upon was its political stability for a long period. Another important factor was the 'controlled democracy' which included even the control over the media to prevent them from sensationalising trivial issues, which is, in fact, a major feature of the media in Kerala. Therefore, the Master Plan shall also encompass clear steps for achieving political pre-conditions essential for economic prosperity. The aim should be to avoid wastage of scarce resources in the name of ideological tug-of-wars between political parties. Some of the milestones of achievements with regard to this, which could be indicated in the Master Plan are: referendum to reduce the number of trade unions; serious efforts to reduce the number of political parties through mergers; training of political and trade union leaders; self-imposed discipline in organising 'bandhs', agitations and processions which affect day to day life and work; and code of conduct and discipline for newspapers.

The need for an integrated and holistic approach to the economic development of Kerala, more specifically the industrial development of the region, is more or less evident from the 'Cause and Effect' diagrams (Solution diagrams 6.4 to 6.7). It may be difficult to do a better pictorial depiction considering the large number of critical factors and their multitudinous elements. However, in the light of the concept about the Master Plan as an essential pre-requisite to integrate the various elements within the domains of disparate agencies and departments, an over-simplified diagrammatic representation of the integrated development approach could be proposed as shown in Fig. 6.9.

The stimulatory steps indicated in the diagram are expected to generate more entrepreneurs in the society. Adequate support facilities, on the other hand, would make the environment conducive to entrepreneurial activities. While better environment itself would stimulate entrepreneurship or attract investors from other regions, more entrepreneurs as role models would, in turn, enrich the environment. Thus, the stimulatory and support activities form part of a cycle and act as complementary to each other. It may be noted that the support facilities such as land or building and transport may have to be developed in a region-specific manner after taking into account the regional limitations and also the prospects for alternative methods.

Fig. 6.9

*Simplified Form of Integrated Development Approach



* See Figures 6.4 to 6.7 for the complete picture

6.11 Conclusions

The factors which would have so far influenced the industrial development of Kerala have been listed in the introductory part of this chapter. Many of these factors have adversely affected the economic prosperity of this region, some having done almost irreversible damages. But, the opportunities lost by this state cannot be simply compensated by some 'wonder-drug' remedies. However, one consolation of the opportunities lost would be the fact that if uncontrolled industrial development had taken place in this region, India would have lost one of its picturesque stretches of land. Now that the whole world is so much concerned about environmental and ecological protection, probably this may be an appropriate time for Kerala to adopt an eco-friendly and sustainable development capitalising on its unique strengths. From this angle even the usage 'Industrialisation' would be like a misnomer unless the word 'Industry' connotes somewhat differently for this region.

From the analyses so far done it is more or less clear that industrialisation of Kerala is a complex problem which demands a multi-pronged and somewhat off-beat approach in finding solutions. Here, the larger interest of the society is of utmost importance as any blind copying of conventional industrial development approaches might result in a major catastrophe in this ecologically fragile region. Yet another conclusion which has naturally emerged from the earlier

analyses is that a given political entity need not necessarily be of the right size for economic development. The development policy for India as a whole may not be effective in reaching the remotest corners of this vast country. For instance, Kerala was found to be differing from most other states in terms of various social, geographical and economic aspects. Therefore, many of the national level developmental models for industrialisation were found to have created only limited impact in this region.

As such, Kerala is also found to be lacking adequate infrastructural facilities to support any rapid industrialisation programme. Kerala's peculiar regional characteristics also demand a deviation from the conventional approach to industrial development. The type of infrastructural facilities which could be created and the nature of economic activities may also have to differ. Kerala's insularity within the Indian sub-continent, coupled with its strategic location in the international sea route and its early history of active trade links with other countries also highlight the importance of alternative strategies for a sustainable growth of this region. Considering all these aspects, it may be essential to focus on region-specific thrust areas such as Electronics, Bio-technology, Soft-ware development, Tourism, Health-Care, Aquaculture, Entrepot trade, etc. But, the sustainability of even these activities might depend upon the ability to create enough inter-linkages between various

economic activities which would result in a kind of 'cumulative causation' or 'multiplier effect'. In other words what may be essential for Kerala would be the deliberate creation of at least a few selected large 'incubator' organisations or major activities which would eventually spawn small enterprises as 'spin-offs'. At the same time Kerala may try to look outward to the rest of the world for commercial links rather than trying to look inward into the sub-continent. From this point of view, it shall emphasise not only on mere entrepot trading but also on newer areas such as providing refueling facility for air crafts, ship repairing, 'import, value-addition and export', etc.

While the initial economic base of Kerala is a historical reality, as of now, what is important is to correct its adverse influences on the society which has culminated in some kind of entrepreneurial inactivity, especially with regard to manufacturing. In other words, over a long period of time, the effect of the initial developmental thrust has become a societal problem from the point of view of industrialising the state. Therefore, through stimulatory steps new attitudes and tendencies may have to be socially developed to attain an industrial culture. This could be massively achieved and rapidly spread only through a need-based education. Here, education shall be seen as a social process aimed at motivating a community into certain activities in preference to others. From this point of view, concepts like

'industrial schools' may be introduced with a view to direct the youngsters to the productive sectors of the economy.

The overall picture, therefore, point to the necessity of simultaneously addressing to multifarious problems associated with both socio-political factors and infrastructural facilities. This could be effectively done only through a Master Plan which would integrate both stimulatory and support activities. Such a Master Plan would also prevent ad hoc developmental programmes. The Master Plan shall have short-term plans aimed at exploiting the immediate opportunities ahead and also long-term plans which would include even activities aimed at inculcating proper value systems in the society for supporting economic activities. On the whole, it could be said that while Kerala has limitations for large scale industrialisation, many of its unique regional features might provide ample scope for overall economic prosperity. This, however, requires a holistic approach which would take into account the problems and prospects associated with the regional characteristics.

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Chapter 7

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Industrial backwardness of Kerala shall be considered as a macro-level problem which cannot be explained in terms of a few factors taken in isolation. The present study assumed that a variety of economic, socio-political, and regional factors, along with the earlier developmental process have to be studied simultaneously so that a holistic evaluation of the approach to industrialisation is possible. This study, therefore, is *exploratory* in nature. Particular arguments followed to explore this macro-level problem with a view to evolve a region-specific developmental strategy, and also a few hypotheses formulated as an extension of this have been stated in Chapter 1 .

Primary data required for the study were collected mostly from the small-scale industrial sector using questionnaires and interview schedules. Secondary data obtained from sources like government publications, government departments and other agencies were also used. For analysis of the data thus collected, descriptive method, mathematical tools like averages, percentage, etc. and statistical tools such as analysis of variance, regression, etc. were used. A variety of pictorial representation was also employed for comparative purposes.

SUMMARY OF FINDINGS

The major findings of the study are summarised below under four broad groups indicating the overall industrial scenario, the earlier developmental process, the regional characteristics and general features.

Overall Industrial Scenario in Kerala

1. The growth performance of the manufacturing sector as a whole in Kerala has been below the all-India average. As against an annual compound growth rate of 10.56 per cent (at 1980-81 prices) for all-India, Kerala recorded only a marginal growth rate of 1.73 per cent in the value added by manufacture between 1980-81 and 1987-88. The compound annual growth rate of number of registered factories fell from 2.9 per cent between 1970-71 and 1980-81 to 1.3 per cent between 1980-81 and 1989-90.
2. Kerala, with about 3.5 per cent of the national population, accounted for only 3.2 per cent of the number of factories, 2.1 per cent of fixed investment, 3.2 per cent of employment, 2.6 per cent of gross output and 3.3 per cent of net value added in the country's manufacturing factory sector as in 1989-90.
3. The recent trends of investment in the country indicated that, in terms of per capita investment in mining, manufacturing and infrastructure, Kerala is roughly around the 15th

position among all the states. It was also found that the private sector in Kerala had a mere 30.1 per cent share of investment as against the figure of 51 per cent at the national level. The percentage of investment flowing into manufacturing sector of Kerala was only 22.07 per cent.

4. The industrial structure of Kerala is characterised by low representation of large and medium scale industrial units. In this sector, the average per unit investment made by the private sector had been about Rs.5 crores as against Rs.6.5 crores and Rs.47 crores invested by the State and Centre respectively. This indicated a poor private sector participation in the medium and large scale industrial sector.
5. An industry-group-wise distribution of the 210 large and medium manufacturing units in Kerala showed a somewhat lopsided industrial base with heavy concentration in agro-processing and chemicals. While the former sector indicated a legacy of the past, proliferation in the latter sector shall be considered unsuitable for this densely populated region. Further, both these sectors, especially chemical, have inherent limitations to spawn small enterprises in the nearby areas.
6. Electronics, which has the fourth place in terms of the number of units had an investment of only about 5.7 per cent of the total. Its share in total turnover was only 7.1 per cent. Considering the high human capital formation in this

state, the performance of electronic industry is, therefore, disappointing.

7. Though Kerala do not possess metallic mineral raw materials, metal industry is found to have a significant presence in terms of number and value of investment. In contrast to this, though this region has an abundance of natural non-metallic minerals such as china clay, silica sand, rare-earths, etc., the number of units and investment in mineral based units are substantially low.
8. The foregoing three observations indicate a lopsided industrial base somewhat delinked from the regional characteristics
9. The overall picture of the large and medium sector did not show any promise in terms of providing a strong industrial base for spawning small enterprises, especially modern industries.
10. Nearly one fifth of the total number of large and medium scale industries are concentrated in Ernakulam district, primarily on account of the initial industrial base created in the pre-independence period. This highlights the importance of industrial agglomeration.
11. The average size of the small-scale units in Kerala, in terms of most of the indicators, have been higher than the all-India figures in 1972-73. By 1987-88 all these indicators

except employment fell below the national averages.

12. As in 1987-88, the net value addition per employment in the small-scale sector in Kerala (Rs.4232) was found to be much lower than at all-India (Rs.8810) indicating a lower labour productivity in the state. The net value addition per Rs.1 lakh of fixed investment for all the industry-groups put-together was Rs.0.6 lakh for Kerala as against Rs.1 lakh at all-India, which showed the poor Capital Productivity in the state. All these indicated that Kerala is composed of small firms with low-technology, low-productivity and yielding only very little value addition.

13. Analysis of the industrial base in the small-sector based on the primary survey indicated that, in the manufacturing sector, Food and Beverages constituted the maximum number of units (14%) followed by General Engineering (13%), and Textiles and Garments (10%). The major chunk of the industries continued to be those depending on the local resources. However, there was an increase in the presence of 'foot loose' (demand based) industries. But, plastics, a highly potential 'foot loose' industry did not show any significant presence.

14. 75.4 per cent of the units were below the level of Rs.5 lakhs of fixed investment. Only 3 per cent of the units had an investment level above Rs.50 lakhs. Within the limit of Rs.5 lakhs, 44.3 per cent of the units were having fixed invest-

ment only up to Rs.1 lakh. All these showed the weak size-structure of the small-sector indicating that they are somewhat akin to self-employment ventures.

15. 74.9 per cent of the units surveyed were proprietary concerns. 11.3 per cent of the units were partnership firms and 6.9 per cent private limited companies. Only 1.0 per cent of the units were public limited companies. Though the predominance of proprietary concerns itself may not mean much, this observation coupled with high incidence of low level of investment underscores the argument that majority of the industrial units were only a slightly better version of self-employment ventures.

16. Majority of the units (57.1%) in the sample were set up during the 1980s. The number of units set up over a short period of two years (56 units) after 1991 was almost double the number of units which were found to have been established before 1981 (31 units). Over a period of about 12 years (till about 1993), there was a reduction in the percentage of manufacturing units set up. The percentage of service units was gradually increasing from a level of 9.7 to 17.9.

17. Out of the total number of units established before 1981, the maximum number of units were in the investment level of Rs.50,000 to Rs.1 lakh. In the next decade, the percentage of units in the lowest range of 'Less than Rs.50,000/-' increased from 9.7 per cent in the previous time period to 25.9

per cent. After 1991, the percentage of units which have fallen in the lowest range again increased to 32.1. The percentage of units above Rs.50 lakhs investment also gradually decreased from 6.5 before 1981 to 1.8 after 1991. Therefore, it may be concluded that though there is a drastic increase in the number of SSI units being set up, over the years majority of them were moving closer to the level of least possible investment.

18. 'Promoters experience', 'local market demand' and 'inherited local skill' were the three major factors which were found to have influenced the selection of projects.
19. Proximity to residence (71.4% cases) and availability of land (46.8% cases) were found to be the two major factors which influenced locational decisions. However, entrepreneurs have not undermined the importance of the other factors such as availability of land, skilled labour, transport facilities, etc. Therefore, it may be inferred that for small-scale industries, locational decision is more a matter of convenience, provided other basic factors are sufficiently conducive.
20. 50.7 per cent of the units were operating below 60 per cent capacity utilisation. 'Repairs and services' recorded the lowest mean capacity utilisation (43.23%). The industry-group 'Building materials' gave the highest capacity utilisation. Among the various reasons indicated for low capacity

utilisation, 'working capital shortage' was ranked first. Power was yet another common problem mostly faced by those units in the modern industrial sectors.

21. The logistic regression of capacity utilisation on working capital showed that in the case of working capital the relationship with capacity utilisation is significant at 5 per cent level. The average capacity utilisation was also observed differently among groups indicating different levels of demand. Therefore, the variation in capacity utilisation may be partly attributable to variation in market demand.
22. Majority of the SSI units (65.5%) were found to be catering to the local market. While this could be a general trend for Repair and Service establishments, as far as the other industry groups were concerned, it was an indication of a low profile activity. As capacity utilisation was also found to be dependent on the market demand the over dependence on smaller local market would limit the utilisation of the facilities created.
23. The foregoing two observations support the first hypothesis stated with regard to low capacity utilisation in the small-sector.
24. Power availability, on the other hand, was unable to show its influence on capacity utilisation.

25. Majority of the units (81.8%) were supplying their products to the consumer market. Those catering to the needs of other private sector companies accounted for 22.7 per cent of the units surveyed. The overall picture, indicated some amount of inter-industry linkages. However, though majority of the central public sector units in Kerala were performing well, their role in the creation of inter-industry linkage had been negligible. This observation supports the general argument that majority of these units have remained as 'islands', partially validating the argument with regard to the absence of sufficient incubator organisations.
26. A comparative analysis done with the situation in an industrially developed region (Bangalore) showed a better picture of inter-industry linkage. The percentage of units catering to both private and central government companies were found to be 12.5 and 50 respectively, showing very good inter-industry linkages.
27. 41.4 per cent of the units indicated that they do not face any significant marketing problem. Out of the various problems indicated by the remaining units, 'proliferation of units' (31% cases) and 'lack of capacity to offer credit' (21.2% cases) were found to be the major problems. Proliferation of units were mostly felt in the sectors of Food and Beverages, Garment making, Wood based units, Rubber and, Repairs and Services.

28. 74.3 per cent of the units were found to be operating with a Return on Investment (ROI) less than 20 per cent. In this, 30.5 per cent of the units were operating with ROI less than 10 per cent. Among the different industry-groups only three groups, viz; Plastics, Electrical and Electronics, and Building Materials, did not have representation in the lowest range of 'less than 10 per cent'. All these indicated that efficient use of total funds invested was achieved only in a few industries. This might, in turn, be due to uneconomical size and low level of technology employed by these units.
29. All the above findings validate the argument that the stagnation in the manufacturing sector in Kerala is due to the predominance of enterprises with low investment, uneconomic operational features of the production units, and the overall low profile activity in the small-sector.
30. Majority of the units surveyed complained about the long credit period which they were forced to offer to the government departments and companies.
31. 41.9 per cent of the units indicated that they face working capital shortages. The average level of working capital obtained by those units which have availed working capital assistance (93 units) was found to be about 7.47 per cent of the output value, which is much lower than the 20 per cent stipulated by the Nayak Committee. This indicated that the small-sector in Kerala was not adequately supported with

working capital. The maximum level of working capital assistance enjoyed by any unit was only 15 per cent of the output value.

32. It was found that 110 SSI units had not sought working capital assistance from Banks. On an average only about 25 per cent of the total working capital requirement was met through Bank loans. The percentage of units (in the total number of units in the respective investment levels) seeking working capital assistance from Banks increased with the level of investment indicating that at lower levels of investment the general tendency is to manage by own funds.
33. 35 per cent of the units in the sample had not availed term loan assistance from banks. On an average, the term loan assistance availed by the units was about 42 per cent of the project cost. The percentage of units in each investment level which have enjoyed term loan finance increased with the level of investment.
34. The Debt-Equity Ratio (DER) of the units was found to be around 1:1.32 indicating a reverse trend in project financing whereby the loan content is low. Multiple regression test done to examine for any possible relation between DER and investment levels was also found to be statistically significant.
35. In general, it was observed that when the levels of project investments are low the credit absorption of the funds avail-

able from Banks have been less. This, along with the observation on DER stated earlier validate the second hypothesis that the flow of bank finance to relatively smaller units in Kerala may be poor. The declining Credit-Deposit (CD) Ratio in Kerala, therefore, is partially explained by the predominance of SSI units in the lower investment levels. However, the general hypothesis with regard to inadequacy of bank finance for SSI units in Kerala may not be fully validated by the foregoing findings, as non-absorption of bank credit could also be due to the low profile activity of the units as was evident from the other analyses. Therefore, the issue of financial support needs a detailed and specific study, if possible, by comparing with the situation in a state with high CD-Ratio. In any case, the low credit absorption seen along with the earlier finding that working capital and capacity utilisation are significantly related indicate that these SSI units might continue to have poor operational features or low profile activity.

36. 37.9 per cent of the units complained about the inadequacy of power. Frequent disruptions, voltage fluctuations etc. were reported by almost all the units surveyed.

37. 32.5 per cent of the total number of units expressed the problems faced in getting reliable consultancy support. Most of them were dissatisfied about the industrial information mechanism, especially at the District Industries Centres (DIC).

38. A quick assessment of the facilities at the DICs revealed that most of the project profiles available there were the ones prepared in the 1980s. Even quick estimates of the demand-supply gap in various sectors at each district was not available. Apparently, the counselling largely depended on the 'individual' manning the information centre and was not at all system-bound.
39. While the need for infrastructural support was expressed by units in all the investment levels, the requirement for stable policies was expressed only by those at the higher levels of investment.
40. It was felt that tax concessions have prompted a few units to grow horizontally (by setting up more similar units) with a view to enjoy concessions and subsidies. This may be viewed as one of the bad effects of concessions which are linked to turn-over, size of investment, etc.
41. The average number of employees per SSI unit worked out to about 10.
42. Majority of the units reported that the industrial relations within their units were either good or satisfactory. Only 3.9 per cent opined that the industrial relations are bad.
43. Disputes in the unorganised sector, especially with regard to loading and unloading activities, were reported by almost all the units.

44. 13 per cent of the entrepreneurs were having technical diploma or graduation and 10.4 per cent were technical certificate holders. 50.4 per cent of the entrepreneurs were either graduates or post-graduates with general background. 22 per cent of the entrepreneurs were having SSLC or pre-degree qualifications.
45. 45.2 per cent of the entrepreneurs were from families with business or trading background, 21 per cent with 'industrial' background, 17.3 per cent with agrarian background, and 12.2 per cent had their family members in government service. The overall picture indicated that past foundings have created more entrepreneurs indicating the importance of 'role models' in the society.
46. 35.7 per cent of the entrepreneurs wanted to be independent by setting up their own establishments. The next important reason for setting up own units was the difficulty faced by them in getting a job. While 17.4 per cent of the entrepreneurs realised about a business opportunity while working in another organisation, 12.2 per cent of them were utilising their wealth and experience earned elsewhere, mostly in Gulf countries or industrially developed regions within the country.
47. 25.2 per cent of the entrepreneurs were unemployed before setting up their units. Many of such units were comparatively smaller in size.

48. A rough comparison with entrepreneurs in Bangalore, an industrially developed area revealed that, in contrast to the observation in Kerala, the percentage of technically qualified persons were very high (60%), and an almost an equal distribution among all the five types of ancestral background was also observed. Those who had left public sectors and started their own units were 20 per cent and those who had left private companies to become entrepreneurs were 54.3 per cent. This showed a significant presence of 'incubator' organisations in Bangalore. Those who were unemployed before taking up entrepreneurship were only 8.6 per cent.
49. In the case of Bangalore based entrepreneurs, the main motivational factor behind setting up the units was the 'realisation of business opportunities while working in another organisation' (42.8%). This validates the earlier observation with regard to the presence of 'incubator' organisations.

Early development process

1. The early industrial activity in the region which is the present Kerala was only a forward integration of the plantations owned by the British. Therefore, the industrial units were basically agro-processing ones utilising the local resources and was largely oriented towards the export of semi-processed items. The extent of value addition and the forward linkages with the regional economy of these industrial units were very low.

2. The predominance of cash crops, the early opportunities of the state in getting agriculture commercialised and opened to global markets, and the exploitative character of the colonial regime had led to a particular pattern of industrial activities, dominated by traditional industries like coir, cashew, handloom, handicrafts, etc. and a small number of modern industrial units with no substantial forward linkages.
3. After independence, serious efforts for industrial development of Kerala began only with the Third Five Year Plan in the 1960s. Therefore, at the time of its formation in 1956, the state of Kerala was inheriting a weak industrial base.
4. The rulers of the princely states of Travancore and Cochin had contributed much to the development of education and health care. Added to this was the contributions made by Christian missionaries towards the spread of education. After Indian independence, the popular governments in Kerala had more or less carried forward this legacy.
5. The agrarian reforms introduced by the early rulers were radical measures which benefited a sizable proportion of the landless communities.
6. Unlike in the other regions of India, large scale industrialisation leading to agglomeration of people and capital did not take place in Kerala. Instead of progressive concentration of productive forces, production was decentralised and

was moving down from higher forms of organisation to lower forms, as seen in the case of coir and cashew industries.

7. It may be argued that, during the colonial regime, while import of food to Britain was aimed at focusing on industrialising that country, the import of food to Travancore was resorted to for encouraging the cultivation of plantation crops.
8. A number of policy measures aimed at faster industrial development of the region taken up during the period from 1936 to 1947 resulted in the setting up of several large industries. But, this rapid industrialisation was a short lived one.
9. The first Five Year Plan had only 1.9 per cent of the state sector outlay invested in industry and mining. Kerala almost failed to partake in the country's industrial development efforts during the first two Five Year Plans. During the first decade of planned development, the rate of growth of State Domestic Product fell below that of the National Domestic Product.
10. As far as the coir industry was concerned, the successive governments in power had enforced strict controls over mechanisation as well as on the procurement of raw husk for processing with a view to protect employment opportunities. This resulted in the gradual shifting of the industry into the neighbouring states, especially Tamil Nadu.

11. Even by the 1990s only about 15 per cent of the coir industry could be brought under the organised sector. Therefore, as in the case of agriculture in small land holdings, modernisation and technological upgradation were difficult.
12. As in the case of coir, Kerala was gradually losing its grip over other traditionally strong areas (eg; cashew industry) with abundance of resources and skill availability. This was apparently due to the failure to adopt essential technological changes required to keep a productive sector abreast of the times. Yet another reason could be the failure to take an integrated and holistic approach towards developing an entire sector right from farming to commodity production.
13. From the analyses done with regard to the traditional sectors, it may be concluded that unless development of farming and commodity production aiming at high value addition are integrated, it may be difficult to achieve sustainable growth even in those sectors with very high resource endowment.
14. The state-wise per-capita plan outlays revealed that Kerala had a poor resource base by way of plan outlays when compared to most other states.
15. The share of Central Sector investment in Kerala has been steadily declining from 3.2 per cent in 1975 to a low of 1.3% as on 31st March 1992. This may be an indication of the following:

- (a) The peculiar regional characteristics which created difficulties in following a national pattern of development approach and priorities.
- (b) Geographical remoteness from the country's Capital resulting in communication gaps, ineffective follow-ups, delayed sanctions etc. and short falls on the part of the state government machinery in doing its 'business promotion'.
16. The declining flow of Central investment to Kerala cannot be justified in terms of the bad experiences with earlier industrial investments, as majority of the Central Public Sector undertakings in Kerala are performing well. This observation also negates some of the arguments against Kerala's industrial climate.
17. The rapid industrialisation of Andhra Pradesh may be considered to have taken place after large scale defence production and research units were set up there. To begin with, Karnataka also had such large scale public sector units which, facilitated the spawning of modern footloose industries. Kerala, however, failed to mobilise such central investments giving the necessary break to the stagnation after the setting up of a few large units in the early stages.
18. The performance of the large number of State Level Public Enterprises (SLPEs) in Kerala, during the period from 1984-85 to 1993-94, revealed a picture of poor performance resulting in overall net loss in all years, the loss in 1993-94 being

Rs.20.47 crores. At the same time most of the Central Public Sector Undertakings in Kerala were performing well. This points to the possibility of overall mismanagement in the case of the SLPEs.

19. It was found that 59.94 per cent of the total investment in SLPEs lies in Public Utilities. The percentage of employment in the plantation and agro-based units, and traditional industries was relatively much above that of modern manufacturing sectors. But, the investment per employee of both these sectors revealed that technologically they are far behind the other sectors. Thus, the overall picture does not reflect a strong modern manufacturing environment within the SLPEs.

20. SLPEs in the modern manufacturing sector were found to be concentrated around the investment level less than Rs.10 crores. This may also mean a thin spreading of resources and unviable financial and technological size.

21. A variety of other factors such as high debt-equity ratio, resultant high interest costs, poor management, low labour productivity, low capacity utilisation, etc. have resulted in the poor performance of the State Public Sector as a whole making them a burden on the state exchequer rather than generating surplus. With the result, these organisations which would have acted as 'incubators' for small-scale entrepreneurs have generated fear psychosis in the society

with regard to the industrial climate in Kerala.

22. As in the case of the traditional industrial sectors, the experiences with SLPEs also point to a possible failure of the administrative machinery to treat these organisations as commercial establishments with a view to achieve efficient use of the factors of production.
23. Though Kerala witnessed the Electronic revolution in the seventies through the setting up of the Kerala State Electronic Development Corporation (KELTRON) and its subsidiary companies, as of now, Kerala has only a minuscule share of 3 per cent of the national production in this sector. Since sufficient 'spin-offs' did not take place, the private sector in Kerala now accounts for only 12% of the total production of electronic goods as compared to 70% at the national level.
24. The wage-rates in most of the SLPEs were found to be low. But, the value added per employee was found to be less than the emoluments per employee. It was also found that, on an average, one rupee of investment generated less than 65 paise worth of output.
25. As far as the SLPEs are concerned, the crux of the matter apparently lies in the failure to find the right men at the right time to man these units and also to allow them to perform freely and without the bottlenecks created by a set of generalists in government administration.

26. The foregoing findings reveal that the earlier developmental approach right from the colonial period till recently have not contributed much to the creation of a strong industrial base with sufficient modern manufacturing units to facilitate spawning of small enterprises.
27. Comparatively better social infrastructure in Kerala was evident from the values of various yardsticks such as the number of persons per doctor, per capita expenditure on health and education, area served by a post-office and school, etc. Even majority of the industrially advanced states were far behind Kerala in terms of health-care and, education and other social infrastructure.
28. Analysis with regard to vital infrastructural facilities for industries, however, revealed a skewed picture. While Kerala had achieved 100 per cent electrification of villages along with many other states, its growth rate in power generation had drastically fallen in the 1980s when compared to all the other states. Between 1981 and 1993 Kerala recorded a growth rate of only 1.4 against the national average of 8.7.
29. The railway route per 1000 sq.km. area in Kerala (26.45 km) is higher than the national average (19.01 km). Similarly the road length per 1000 sq.km. in Kerala is almost six times the national average. These are, however, due to the smaller land area in Kerala and is also an indication of its crammed nature.

30. Almost the entire length of the National Highway in Kerala runs through highly inhabited regions. This not only creates impediments to the widening of highways but also limits their utility for commercial traffic. Now, the relevant question would be as to how far alternative methods of transportation exploiting the lengthy coast-line, back-waters and rivers of Kerala have been tried for commercial activities.
31. The erstwhile Princely states in this region had well connected waterways which were mostly used for commercial purposes. Later, may be falling in line with the general national trend in infrastructure building, these waterways were undermined. With the result, now only very little of these old waterways remain usable.
32. Kerala's facilities with regard to banking and telephone connections indicated by the related factors also showed that Kerala's position is much ahead of even highly industrialised states.
33. Co-existence of a commendable social infrastructure, and poor vital infrastructure for economic activities point to the possibility of a consumption oriented infrastructure build-up without much links to the productive sectors. While the aforesaid findings validates the argument that the overall infrastructural support facilities in Kerala is inadequate for any large scale industrialisation programme, it is also an indication of an infarrastructure development which was not

region-specific.

34. The excellent social infrastructure in terms of education, banking, health, etc. were found to be primarily linked to the 'money order' economy of the state rather than supporting the productive sectors.
35. The per-capita assistance sanctioned and disbursed by a few financial institutions other than commercial banks also revealed that Kerala's credit absorption was low. Therefore, it may be concluded that the declining C.D. Ratio *per se* cannot be considered as an indication of the failure of the Banking system in nurturing industrial development.
36. In spite of very high potential for tourism, Kerala's per capita sanctions (Rs.4.9) obtained from Tourism Finance Corporation of India Ltd. was only about half of what Karnataka (Rs.11.3) and Tamil Nadu (Rs.10.8) could mobilise.
37. A state level industrial information network with a reliable database, proper storage and retrieval system has not yet been created. This may be one of the major lacunae in the counselling and guidance services available to the entrepreneurs in the State.
38. In the absence of reliable vital statistics it may be virtually impossible to make product and area specific plans for the growth of industries.
39. While medium and large industries may have the capacity to

gather the data required for business decisions on a case to case basis, the small-sector might require an institutional set up for providing reliable information and guidance.

40. It was found that the success rate of the Entrepreneurship Development Programmes (EDP) have been declining over the years. Steep rise in the success rate of an EDP was observed about one year after the completion of the programmes and in the third year after the completion of any EDP programme there was a decline in the growth rate of success. In the subsequent years there was virtual stagnation.
41. It was also observed that the success rate of EDPs would be around 30 to 35 per cent which is achieved over a period of about 3 years.
42. Assuming an average family size of 5, the message with regard to the necessity for entrepreneurship might directly reach and influence only about 4000 persons in an year, a minuscule 0.1% of the total population. Therefore, the influence of EDPs in the society in terms of inculcating entrepreneurial value systems may be limited indicating yet another shortfall in the developmental process.
43. A survey among a few potential entrepreneurs who were attending EDPs revealed that 'Industry' was practically an unheard word while they were at schools. This indicated the ineffectiveness of the educational system in driving entrepreneurial messages into the minds of the youngsters.

44. 49.18% of the trainees indicated strong inclinations towards going abroad for employment even after attending EDPs.
45. 44.35 per cent considered taking up a job important because it gives permanent income and social status. They also felt that there will be enough pressure from parents to take up the job as industry is risky and they themselves are not courageous enough to take risk if they have another option.
46. Only 50.82% of the respondents have said in affirmative terms that they prefer industry.
47. It may be concluded that the EDPs are not effective in attaining attitudinal changes in the society and that EDP training may be effective only as a 'fine tuning' mechanism in a society where gradual and systematic nurturing of entrepreneurial qualities have already taken place through an appropriate basic education.
48. It was found that, on an average, more than 5 years of an individual was wasted in job hunting.
49. Based on the above findings with regard to the potential entrepreneurs, it could be inferred that, in Kerala, there is an absence of strong entrepreneurial culture in the society. This validates the argument about the social impediments to the industrialisation of Kerala.

Regional Characteristics

1. Unlike in the case of the other three southern states, Kerala's industrial growth showed a lack of connection with the pattern for all-India pattern.
2. Kerala is one region which has a high level of quality of life with a relatively low per capita income.
3. The state has climatic, ecological and sociological features different from even its neighbouring states.
4. Kerala's evergreen tropical forests and monsoon forests provide rich natural resources. As such, 27.83 per cent of the state's land area is covered by forests.
5. But for the presence of traces of bauxite, Kerala is practically devoid of primary industrial and energy raw materials. But, this region is endowed with rich deposits of high quality china clay (Kaolin), silica sand, graphite and variety of valuable minerals such as monozite, ilmenite, rutile, zircon and silliminite.
6. The vast expanse of marine and inland waters of the state offer rich source of wide varieties of fish, the annual quantum being about 20 per cent of the country's total fish production.
7. The agro-climatic conditions of Kerala are highly suitable for vegetation consisting of not only food crops and fruit bearing tree crops but also high value yielding plantation

crops.

8. The density of population in Kerala is about 2.75 times the national average. Unlike many other states, it is also one continuum with no significant rural-urban divide.
9. Among all India States, Kerala has the largest percentage of households cultivating land below 0.4 hectare.
10. The dispersed human settlement pattern found in Kerala is admirable from the social point of view. But, this also has contributed to the scarcity of land which, in turn, might have stood as an impediment to large scale economic activities. The small land holdings in Kerala could be a problem even for partial mechanisation of agriculture.
11. The trend in land utilisation indicated drastic reductions in barren and uncultivable land and permanent pastures. Efforts of afforestation and the increase in total cropped area were also evident. These observations coupled with the dispersed human settlement pattern and the construction boom leaves very little hope for making land available for any drastic industrialisation programme.
12. The scarcity of land and ever increasing land cost in Kerala may impede any plans to set up large scale industries more so in the case of industries with troublesome effluents.
13. Land, being one of the basic infrastructural facilities for industrial development, its scarcity itself has to be seen as

an *inherent* problem which demands deviation from the conventional approach to industrialisation.

14. The need for protecting the present ecological condition of this lush green stretch of land may be seen as yet another regional factor which demands deviation from the conventional approach to industrial development.
15. Even the original industrial base in Kerala which was primitive and sharply focused on one or two major traditional agro-based sectors may be considered as a specific regional characteristic when viewed from a post-independent national perspective.
16. Kerala is located in a geographically disadvantageous manner in the Indian sub-continent but is strategically located in the international sea route.
17. Though alienated from the rest of India the long sea-coast of Kerala was active with commercial trade with foreign countries from as early as 3000 BC.
18. The above observations, when viewed from the angle of industrial development, highlight a set of regional characteristics somewhat different from those of other regions in the country.
19. In the 1980s, the population growth rate in the state was the lowest compared to the rate of all states and union territories of the country.

20. Attainment of higher education levels even much before independence and the development of private educational institutions as part of the missionary work was a unique phenomenon in Kerala.
21. As far as general literacy is concerned, the region which is the present Kerala was much ahead of the country as a whole even during the early 1900s. Kerala has a comparatively high women literacy rate.
22. In Kerala, nearly 98 per cent of the students in rural areas have access to a rural primary school within a distance of two kilometers.
23. In Kerala, on an average, there are 864 schools and 16 colleges per district. For every male student in college there is 1.05 female student, indicating the over-all coverage achieved by education in Kerala.
24. The per capita expenditure on education in Kerala was found to be consistently standing above the national average. Kerala also was the state which was in the forefront in initiating reforms to democratise education.
25. When it comes to job oriented and professional courses and also for higher education, especially in the field of medicine, there is a large scale migration of Keralite students to other states.

26. The state of Kerala is found to be losing an opportunity for capitalising on one of its major strengths to convert the region into a centre for higher learning. This may be all the more important considering the state's limitations in accommodating large number of big industrial establishments.
27. Higher levels of education and literacy are major achievements of Kerala from the point of view of social development. But for the inflow of the foreign remittances from the Non-Resident Keralites how far these achievements have contributed to the state economy is a big question which requires an in depth study.
28. The excessively developed general education might have resulted in alienating the youth from many of the productive sectors in which their ancestors have been gainfully employed. Thus, the educational thrust in the state would have remained as a 'push system' without considering the societal needs.
29. With a substantial control over population growth, ideally speaking, Kerala with its higher education level should have been gradually enhancing its work participation rate. But, it was found that Kerala was almost consistently lagging behind other states on this aspect.
30. Though the female literacy rate in Kerala was 89.79 in 1991, the female work-participation rate was only 15.85 per cent as against the national average of 22.25 per cent.

31. While the reduction in work participation could be due to various reasons, the ineffectiveness of the education system in contributing human resources to the productive sectors is somewhat evident.
32. The spread of schooling and longer periods spent in education might have also resulted in delayed entry into the labour force. The time wasted by the educated youth in first trying for a white collar job and also the tendency of the educated to leave their ancestral industrial and agricultural activities may be the other reasons for low work participation rate.
33. As at the end of May 1994, there were 26.7 lakh work seekers having S.S.L.C and higher qualifications. This consisted of 21.5 lakh matriculates, 3.1 lakhs PDC holders, 1.8 lakh graduates and 33751 post graduates on the hunt for a job. The overall scenario, looks as if education by itself was 'unemployment in disguise' as far as Kerala was concerned.
34. Though Kerala accounts for only 3.5 per cent of the country's population 16 per cent of the unemployed in the country are from this state.
35. Out of the total employment of 11.86 lakhs in the organised sector of Kerala, 54.9% is in the public sector as against 45.1% in the private. The gradually declining trend of employment in the private sector, indicated the frail nature of

entrepreneurial activities in the state.

36. Kerala is one among the few states which registered a negative growth in employment in the registered manufacturing sector.
37. The structural changes in the work force between 1951 and 1991 in Kerala characterised by a decline in the proportion of workers in the primary and secondary sectors, and a substantial increase in that of tertiary sector is not the typical pattern of structural change which is expected to occur with sustainable economic development.
38. Substantial decline in the proportion of cultivators indicating a large number of them leaving their traditional occupation was observed.
39. The aforesaid findings with regard to the impact of education, coupled with the findings based on the survey among potential entrepreneurs validate the argument that the welfare oriented development approach emphasising on education has not nurtured entrepreneurial qualities in the society and also has not contributed in directing the human resources to the productive sectors of the economy. Another inference which could be made is that in those regions where the educational level is comparatively low, the natural process of making a living might prompt individuals to take up entrepreneurial careers resulting in generation of further employment opportunities. What might have happened to Kerala

would be a shift from this natural phenomenon due to an ill-conceived educational policy. Over a period of time, this might have also created a social impediment to industrialisation.

40. It was found that the higher educational and literacy levels coupled with very little local employment opportunities resulted in the migration of Keralites to other regions for employment
41. The migration of Keralites resulted in a 'money-order' economy. The most direct outcome of the remittance was apparently on consumption. Till the early 1970s consumption level in Kerala remained lower than the all-India average. Since then, it has steadily improved and by 1983-84 exceeded the national average. Ratio of consumption expenditure to the state Domestic Product for Kerala has been continuously on the increase.
42. 62.5% of the Non-Resident Keralites (NRK) surveyed indicated that each of them have already invested in one house at their hometowns. 29% have made additional investments in real estate at major cities in Kerala. 10.4% of them have invested in real estate in the metro cities of India and 21% in cash crop plantations. Only 8.3% have directly invested in industries, that too all of them having invested outside Kerala.
43. In general, apart from some employment generation in the tertiary sector, mostly in the travel industry, the remit-

tances made by the Keralite emigrants have hardly been found to be used for productive purposes.

44. The 'money-order economy coupled with almost an equitable distribution of land would have made individual families more or less self-sufficient. This, in turn, would have reduced the usual economic pressures for engaging in productive pursuits, thereby adding another dimension to the social factor with regard to industrialisation. In fact, as of now, this may also be considered as a region-specific factor.
45. 73 per cent of the NRKs were not convinced about the industrial climate in the state. Majority considered labour problems and power shortage as the major impediments for setting up industries in Kerala. 31.3 per cent were skeptical about bureaucratic and political interference. 27% of them indicated that there is no effective information and guidance system for identifying and implementing industrial ventures in Kerala.
46. The wages in the organised sector in Kerala may be lower than what is in existence in at least the industrially developed regions in other states. But the productivity of Kerala labour in the organised sector was found to be low.
47. Wage rates are significantly high in the unorganised sector activities such as loading and unloading, field labour and certain skilled jobs such as carpentry, masonry, plumbing, etc.

48. Acute shortage of manpower is felt for manual labour such as field work, odd jobs at construction sites, etc., which is often compensated by the large number of immigrant workers from Tamil Nadu.
49. Kerala, perhaps, may be the only place in the country where loading and unloading activity is carried out as a right of a section of the working class.
50. After the formation of the state in 1956, many a time Kerala was ruled by a party which was not in power at the centre and the change from one party to another (or their coalition groups) occurred about nine times in a period of about 37 years. Such political instability may have a chain reaction jeopardizing the developmental efforts as it would mean not only reversal of policies and priorities but also bureaucratic discontinuity at key positions.
51. In Kerala, the failure of the pre-independent industrial developmental efforts to bear fruits in the form of a strong industrial base with inter-industry linkages may be better explained in terms of the political instability and the resultant reversal of policies and priorities and also the damage it has done to the unity of direction with regard to the developmental programmes.
52. Unity of direction for a reasonably long period of time may be an essential pre-requisite for the success of long-term

developmental programmes.

53. As of now, Kerala represents about 20 per cent of the trade unions in India and the membership in these unions account for 7 per cent of total trade union membership in the country.
54. From 1967 to 1974, Kerala gave a picture of highly strike prone area when compared to all the other states. From 1977 to 1985, Kerala's dispute frequency drastically reduced and by 1985 it came to a level below the all-India figure.
55. During 1980-84 the annual average time loss in Kerala was only 1.58 million man-days as against 11.10 million man days in West Bengal, 14.99 million days in Maharashtra and 3.13 million days in Tamil Nadu. But, the ups and downs in the recent figures of the nineties give confusing signals with regard to the labour scenario in Kerala and the problems related to loading and unloading workers continue to be a major irritant.
56. Statistics relating to generation, demand and supply of power projected till 2000 AD showed that by 2005 the supply of power in Kerala may be less than 50 per cent of the demand unless drastic measures are taken to solve the power crisis.
57. Surplus power at cheaper rate was once a strong point for Kerala. Over the years, growth in consumption, vagaries of monsoon and delays in creating additional generating capacity

have brought the state into a situation of looming power crisis. As of now, non availability of power may be one of the major impediments to the industrial and general economic development of this region.

58. The over-dependence on hydel projects, the non availability of energy raw-materials such as coal within the state and scarcity of land are some of the major problems faced in augmenting power production in the state.

59. Apparently, Kerala faces a kind of insularity within the country. This is reflected not only in terms of agro-climatic conditions, but also in terms of social features. The commercial linkage which Kerala could establish with the rest of the country was largely as a supplier of certain primary produces and as a highly potential consumer market.

60. The geographical remoteness of Kerala from the major business and industrial centres of the country has resulted in heavy costs of transportation of raw materials into the state and distribution of finished goods outside the state.

61. For all practical purposes, a Keralite entrepreneur might face more problems in getting a first hand information or even in participating in an exchange programme, trade fair or anything of that sort which normally takes place in the capital city of New-Delhi which is almost at the other end of the country. A Keralite entrepreneur, especially those in the SSI sector, may have to spend more money and energy to

partake in such activities and also to source information from government and foreign agencies when compared to his counterparts in the northern states or even the other southern states. Thus, information becomes either costly to him or a belated one. The overall exposure to the new developments may also be poor.

62. Due to the poor industrial base, a Kerala based entrepreneurs would also face more problems in the selection of machinery and equipment, more so for those in the SSI sector.
63. As such, much of Kerala's foreign trade links are through the metropolitan cities like Bombay and Madras which may not be a necessity. Kerala's trade links with other countries which were active since about 3000 BC would have gradually faded away when this region had to function within the constraints of a regulated economy as part of a large political entity. Thus, while the trade links with the external world was gradually fading away, due to various socio-political reasons, this region also failed to merge with the overall economic trend in the Indian peninsula.
64. Kerala has produced large number of highly competent professionals, majority of whom are at present employed in different parts of the world.
65. Keralites - both men and women - working both within and outside Kerala have demonstrated high aptitude and skill in their areas of work and adaptability to their environment.

66. With its lengthy coast line, Kerala also provides ample scope for developing container terminals and fishing harbours.
67. Kerala has a strong background of traditional commodity exports.
68. Kerala offers pollution and dust free environment due to rich and thick vegetation. It has plentiful supply of water from its various rivers and rivulets, backwaters and seasonal rainfalls and also has picturesque land and evergreen forests.
69. Kerala had a long history of successful indigenous medical system called 'Ayurveda'.
70. Kerala's ecological and environmental conditions may be considered as a strength as well as a weakness from the point of view of economic activities.
71. The analysis of the entire situation done using *Cause and Effect* diagrams revealed the absence of a region-specific approach to the industrialisation of Kerala. While many peculiar regional characteristics stood as impediments in following the general national level pattern of industrialisation, certain unique strengths of the region were found to be unexploited.

General findings

1. It may be argued that Kerala had missed the earlier national level industrialisation drives mostly due to the absence of primary industrial and energy raw-materials, the presence of which normally results in the setting up of large industrial units in core sectors.
2. It may be unwise to assume that all regions of the country would be equally benefited by the economic liberalisation.
3. In the post-liberalised period, unleashed from the 'license regime' large investors might move into already developed regions mainly due to the benefits of agglomeration.
4. Kerala being industrially backward, it is quite likely that this state would be ignored by the highly mobile investors unless deliberate government intervention takes place.
5. Political instability in Kerala might work against one of the basic principles of management viz; unity of direction which may be a vital pre-condition for development.
6. The experiences of countries such as Singapore and South Korea highlight the necessity of political stability and stable policies as essential pre-conditions for industrial investments, especially foreign investment.
7. Abundance of natural resources alone may not set favourable

conditions for commodity production. The most important aspect of any economic activity would be the human factor.

8. Developing the manufacturing sector alone may not be the panacea to the economic stagnation of Kerala.
9. Availability of land, environmental and ecological conditions (constraints), type of locally available raw-materials and other region-specific resources (strengths) may be considered as the *critical inherent factors* which would influence further industrial development of Kerala.
10. The '*critical man-made factors*' would be the initial developmental process, political stability and government support, labour relations, capital availability, power availability, social value systems and education.
11. An analysis of the perceptions of entrepreneurs with regard to Industrial climate revealed that all the six factors identified viz; power availability, land availability, environmental and ecological constraints, labour attitudes, political stability and government support and capital availability are critical enough to make a region an attractive industrial destination and that if the state differences are not taken into account, capital availability, labour attitudes and land availability may be the top three critical factors.
12. It was also found that the potential for industrial activity

showed differences among the four southern states in terms of the aforesaid six critical factors. In this, most important critical factors which differentiated among the states were 'favourable labour attitudes', 'land availability', and 'Energy', in this order. As far as the availability of land is concerned, Kerala is far behind all the other three states considered here. A relative position of Kerala with regard to the other major factor viz; 'labour attitude' also was found to be poor. Augmentation of power production in Kerala also faces peculiar regional constraints. The foregoing observations support the third hypothesis that in the popular perception of the entrepreneurs, Kerala's position as an industrial destination is less convincing when compared to all its neighbouring states. Another noticeable observation was the similarity in the pattern of relative weightage assigned to the critical factors for the three states other than Kerala. In the case of Kerala, there was a different pattern of relative weightage for the factors.

13. It may also be concluded that though the recent statistical data with regard to strikes and man-days lost, etc. speak in favour of Kerala, the past bitter experiences with regard to labour unrests continue to influence the perception of the entrepreneurs, as 'labour attitude' was

observed as the major factor which differentiated Kerala from the other three states

SUMMARY OF RECOMMENDATIONS

On the basis of the findings of the present study several recommendations have been proposed with a view to improve the overall industrial scenario in Kerala. As part of the analyses done on the *Causes and Effects*, most of the recommendations have been summarised in Chapter 6. A more comprehensive picture of the recommendations also appear in the *Cause and Effect* diagrams given as Figures 6.4 to 6.7. Therefore, in order to avoid repetition, summary of only the major recommendations have been indicated here.

Certain aspects related to industrial development in Kerala require further in depth study. These have been suggested as topics for further research towards the end of this chapter.

1. With regard to the traditional sectors such as coir and cashew, it is recommended that the government may take adequate steps to integrate farming and commodity production aimed at sustainable growth of these sectors. This may be achieved by suitably revamping the functioning of the existing Commodity Boards.
2. It may be essential for Kerala to drastically modernise the coir industry to check the gradual shifting of this industry

to the neighbouring states mainly on account of mechanisation and partially due to low wages.

3. It is recommended that traditional sectors such as coir and handloom shall be modernised through enough design and product innovation, and also employing modern production techniques with a view to capitalise on the global demand for eco-friendly and bio-degradable materials. This shall be done with long term vision, programmes and plans. In the case of coir and cashew, suitable steps may be taken to expand the indigenous market.
4. In order to strengthen the industrial base of the state in the shortest possible time it may be imperative to revive as many State Level Public Enterprises (SLPEs) as possible through at least partial disinvestment to the private sector. Resistance from the labour unions may have to be overcome through a systematic awareness campaign.
5. With regard to the SLPEs, the present practice of appointing generalists (mostly senior bureaucrats) may be avoided as far as possible. Instead, professional managers may be appointed as chief executives and given adequate freedom to run the units as commercial establishments. In cases of necessity, even bureaucrats may be selected for such appointments based on their suitability which shall be assessed by a Public Enterprises Selection Board. Selection of other personnel to the SLPEs (in the manufacturing sector) through Public Serv-

ice Commission shall be discouraged to avoid delays.

6. An industrial information system shall be built up inter-linking all the District Industries Centres and the major industrial promotional agencies. Each regional information centre shall offer a Decision Support System to enable the entrepreneurs in selecting the right projects and also in making right business decisions. The information system shall be properly supported with counselling and consultancy services.
7. The data generated as part of various procedures (of Industries Department) transactions (of Banks) and studies (of consultancy organisations) may be collected and processed to create a reliable industrial database.
8. The systems and procedures followed by the industries department as well as Banks may be modified so that the documents generated and therefore the recorded data not only meet the statutory requirements but also the information needs of the state.
9. Instead of a thin spreading of resources among large number of similar promotional agencies, it may be appropriate to have a few organisations with discrete tasks and enough capital base.
10. Creation of healthy agglomeration of small-scale industrial units through setting up of industrial clusters having common

facilities for design, testing, effluent treatment, marketing, etc. may be encouraged. Such clusters operating from flattened type of buildings or households would be more appropriate for Kerala. This, however, demands a deviation from the conventional approach in project selection. Preference shall be given to hi-tech, non-polluting and human skill-based projects. Adoption of villages for nurturing such clusters may even be entrusted to private sector on Build, Operate, Lease and Transfer (BOLT) system.

11. The financial institutions may assess the working capital requirement of the small-sector on a need based manner. The diversion of funds for non-working expenses may be prevented by (a) ensuring that adequate term loan is sanctioned in time and, (b) ensuring that all facilities for manufacture have been set up.
12. The systems and procedures followed by government organisations in effecting payments against supplies from the small sector may be suitably modified with a view to enable them to make timely payments.
13. A state level Computerised Industrial Information Centre with links to national and international databases shall be set up to provide updated information on technical know-how, policies, rules and regulations, market information, project profiles, sources of equipment, etc.

14. State information centre shall publish news updates for dissemination of information to the Non-Resident Keralites (NRKs) through NRI Economic Forums or the Indian Missions in the respective countries.
15. A liaison office shall be set up in one or two Gulf countries to attract NRK investments into the productive sectors. The liaison office shall have link to the Industrial Information Centre and shall assist the NRKs in accomplishing at least a part of the procedural formalities for setting up industries in Kerala. These liaison offices could be partially funded by the NRI Economic Forums or similar organisations in the respective countries. Wherever possible state level industrial promotional agencies may take up 'foster management' of industrial units set up jointly with NRKs.
16. Sufficient steps shall be taken to attract NRK investment in infrastructure development, especially in power generation.
17. A few large manufacturing units may be set up (including ship repairing, railway repair shop, etc.) in the government sector or as joint ventures to perform the role of incubator organisations which would influence the type of new businesses and also the motivational level of the entrepreneurs.
18. It is recommended to considerably enhance the utilisation of sea, backwaters and canals for trade, commerce and tourism related operations and transport with a view to reduce the

pressure on land. In other words, a region-specific transportation system could be introduced.

19. Open Kerala to the outside world by establishing direct trade links with foreign countries exploiting its strategic location in the sea. At least three sea ports may be developed for cargo handling and also for pleasure cruise between Indian ports.
20. Considering the acute scarcity of land in Kerala the type of infrastructure for providing space for industries and even the nature of industrial activities may have to be suitably modified.
21. Use of 'flatted type' of industrial sheds shall be encouraged by providing built-up complexes instead of conventional industrial estates and independent plots. Flatted type sheds could cater to the needs of sectors such as electronics, garment making, food processing, and hi-tech industries.
22. The number of residential buildings owned by an individual shall be limited through proper legislation, so that more land could be made available for productive purposes.
23. Considering the ecological fragility of Kerala and also the scarcity of land, it is recommended that the industrial development efforts may deviate from the conventional approaches.
24. Guidelines on the type (thrust industries) and size of large

and medium scale industrial units may be issued considering the regional constraints and prospects.

25. High value addition of locally available raw materials aimed at direct export shall be encouraged through specific incentives and subsidies. The emphasis could be on certain thrust areas which offer immense opportunities for vertical integration aimed at export of products as well as technology.
26. It is recommended to provide institutional support by way of Common Facility Centres for design, testing, training and marketing assistance to the traditional sectors which use local resources and skills (eg. coir, handloom, cashew, etc.)
27. Promotion of floriculture, tissue culture or fruit processing shall be done through an institutional support and guidance for global marketing.
28. The possibility of importing raw-materials, value adding and exporting shall be exploited taking advantage of Kerala's strategic location in the sea and also its human resources. Multi-national corporations may be invited to set up such units in Kerala by projecting the high quality of life and port and cargo handling facilities (after developing them to international standards).
29. It is recommended to stress on developing human capital based activities in the fields of electronics, bio-medical, para-

medical, ayurvedic and modern health-care, soft-ware development, etc.

30. The possibility of generating tourism potential associated with investments in other productive sectors shall be exploited. For instance, aquaculture and tourism might go hand in hand. Dam sites may be given enough face lift to make them attractive tourist destinations.
31. Ayurvedic tourism and, cultural and heritage tourism shall be promoted in a big way. This may enable Kerala to position itself in a unique manner in the global tourism market.
32. The dispersed human settlement pattern with almost an equitable spread of basic amenities may be exploited to create self-sustaining tourist villages with the support of local people.
33. The old waterways shall be revived to promote tourism and facilitate commercial transport.
34. Entrepreneurship Development Programmes (EDP) shall be introduced in tourism sector.
35. Tourism potential surveys, preparation of tourism project profiles and EDPs shall become an integral part of a multi-pronged tourism development approach. The thrust shall be on 'Quality Tourism' (low volume ; high returns).
36. While the initial developmental base in Kerala is a histori-

cal reality, as of now, what may be important will be to correct its adverse influences on the society. Bringing in attitudinal changes favourable to economic activities may be essential for any alternative developmental strategy.

37. It may be appropriate to organise periodic structured training programmes for politicians and trade union leaders at all levels, in the areas of economic interests, industry, labour relations, tourism, political pre-conditions for growth, etc. The overall objective shall be to safeguard the unity of direction in development activities through balanced democratic practices.
38. Adequate steps shall be taken to prevent frequent reversal of policies and priorities due to political instability. To some extent, political instability could be compensated with bureaucratic continuity at key positions.
39. Bureaucrats' performance may be measured in terms of quarterly targets, with higher weightage for developmental expenses incurred (juxtaposed with quantifiable achievements) during the initial periods of the financial year.
40. Steps may be taken to reduce the number of trade unions within a factory. It may even be appropriate to initiate a move to re-unite the various factions of erstwhile major political parties and trade unions. This may be projected as a need of the hour for political stability in the region.

41. At least from the point of view of converting Kerala into an international tourist destination, the political parties may have to adopt self-imposed discipline in organising sudden 'bandhs', road blocking processions, violent strikes, etc.
42. Organisations such as the National Productivity Council (through the State Productivity Council) and Institute of Management in Government may take the lead in organising training and awareness programmes aimed at societal changes including creating awareness about political pre-conditions for economic growth.
43. Successful entrepreneurs shall be inducted into key administrative positions (on a fixed term of service) with a deliberate view to enhance the dignity of entrepreneurial career. This might, in turn, force the bureaucrats to continue to show results to justify their positions.
44. It is recommended to take immediate and effective steps to enforce the rules pertaining to wages in the unorganised sector, especially in the case of head-load workers. Tripartite local committees shall be formed to ensure over-all discipline.
45. To create an environment conducive to 'cumulative causation' resulting in a healthy small-scale industrial sector, it is recommended that at least one major defence production unit, one major railway coach manufacturing unit or repair shop along with a few other similar establishments of national

importance shall be set up in Kerala. Apart from the existing ship building yard, a major ship repairing centre could be set up in an appropriate place.

46. More central assistance shall be directed to flow into infrastructure building such as sea ports, container terminals, doubling and electrification of railway lines, gas grid and power stations. Earlier lapses in central investments in Kerala may be compensated through such investments.
47. Sea and air ports shall be developed in a manner which facilitates direct trading and commerce with foreign countries.
48. Adequate tax concessions and other facilities may be introduced to convert at least one airport into a refueling centre in the international air route.
49. A Master plan shall be made to suitably augment the power position in the state.
50. It is recommended to give high priority for establishing the southern gas grid. This may be seen as the only workable long-term solution to the power crisis in the state.
51. Privately owned power projects shall be encouraged to the fullest extent possible.
52. The importance of general education (graduation for the sake of graduation) shall be gradually reduced in a phased manner. At the same time more job oriented education linked to the

productive functions shall be encouraged.

53. School curricula shall be modified to nurture entrepreneurial qualities.
54. A multi-pronged approach shall be resorted to with a view to achieve societal changes favourable for economic development.
55. 'Earn while you learn' (EWYL) scheme may be introduced to catch the youth while they are sufficiently young to direct them to the productive sectors. (see 6.6.4)
56. 'Industrial schools of Higher Learning' may be set up to make the EWYL scheme attractive and effective. (see Fig.6.8).
57. Kerala may also focus on converting itself into a region for higher learning.
58. Industry - varsity interaction may be promoted with a view to achieve drastic positive changes in the societal value systems with regard to education, industry and employment.
59. Considering the high human capital formation, Kerala may experiment with at least one Science Park to provide the necessary impetus for the formation of knowledge based business and science based companies.
60. Kerala may try to achieve certain bare minimum political pre-conditions (for economic prosperity) through a concerted effort.

61. Effective career guidance and counselling shall be introduced at school and college level.
62. The education system shall be thoroughly revamped to make it a need-based one. The human capital development shall be achieved through a manpower planning approach.
63. The technical and management education in the state shall be reoriented to generate more entrepreneurs instead of churning out white-collar job seekers.
64. It may be essential to take a multi-pronged approach towards changing the negative entrepreneurial perception about Kerala with regard to labour attitude. While many other perceptive factors which differentiate Kerala from its neighbours may be hard facts, what is being suggested is to project Kerala as a destination for off-beat projects mainly exploiting its unique strengths.
65. In the context of Kerala the word 'industry' may have to be redefined (covering newer areas and eliminating certain conventional activities) as part of a region-specific alternative strategy.
66. It is recommended to assign thrust to develop (a) modern industries in the field of electronics, bio-technology, software development, spices and oleoresins, minerals based products, etc.; (b) tourism which embraces ayurvedic, pilgrimage, adventure and backwater tourism; (c) health care which

covers ayurveda, super-speciality hospitals and naturopathy; (d) aquaculture; and (e) entrepot trading.

67. On the whole, it could be said that Kerala shall take a holistic approach addressing to the multifarious problems associated with both socio-political factors and infrastructural facilities to come out of its economic stagnation. This could be effectively done only through a Master Plan which would integrate both stimulatory and support activities.

Topics for further research

- (a) A critical evaluation of the institutional support for small-scale industries in Kerala, with special reference to Bank finance.
- (b) Migratory trends among Keralites and its impact on sustainable development of the productive sectors of the state economy.
- (c) Management practices and performance of State Level Public Enterprises : A comparative study with the Central Public Sector Enterprises in Kerala.
- (d) A study of entrepreneurial traits and characteristics of Keralites in comparison to the people in selected industrially developed states.

Questionnaire Schedule for SSI Units

Instructions for filling :

Please tick mark or indicate the relevant figures in the appropriate boxes.

Examples

1. If your unit is a registered one tick mark box 2a ; other wise tick mark box 2b.
2. Reason for selection of present location (Qn. no.7): If your reason is 'skilled labour' tick in box 7f

1. a. Name and address of unit :

 b. Type of Organisation

	2a		2b
2. Registered	<input type="checkbox"/>	Unregistered	<input type="checkbox"/>
	3a		3b
3. Manufacturing	<input type="checkbox"/>	Service	<input type="checkbox"/>
	3c		3d
Job works	<input type="checkbox"/>	Others	<input type="checkbox"/>

4. Product/Service

5. Year of establishment

a) Before 1981		5a
b) 1981 - 1991		5b
c) After 1991		5c

6. Reason for selecting the project :

- a) Local skill inherited/acquired
- b) Ancestral business
- c) Local market demand
- d) Availability of raw materials
- e) Due to Govt. promotional scheme
- f) Experience
- g) General demand
- h) Others (Specify)

	6a
	6b
	6c
	6d
	6e
	6f
	6g
	6h

7. Reasons for selection of the present location

- (a) Proximity to residence
- (b) Proximity to raw-material sources
- (c) Transport facilities and roads
- (d) Availability of service and repair facilities
- (e) Presence of other units in the nearby areas
- (f) Skilled labour
- (g) Availability of land
- (h) Proximity to market

	7a
	7b
	7c
	7d
	7e
	7f
	7g
	7h

8. Investment in Fixed Assets :

- a) Less than Rs.50,000
- b) Rs.50,001 to Rs.1 lakh
- c) Above Rs.1 lakh upto Rs.2 lakh
- d) Above Rs.2 lakhs upto Rs.5 lakhs
- e) Above Rs.5 lakhs upto 15 lakhs
- f) Above Rs.15 lakhs upto 50 lakhs
- g) Above 50 lakhs

	8a
	8b
	8c
	8d
	8e
	8f
	8g

9. Source of funds

		*FI	*WC	
a) Own funds	9aa			9ba
b) Loan (Banks)	9ab			9bb
c) Parents, well wishers contribution	9ac			9bc
d) Private borrowing	9ad			9bd
e) Others	9ae			9be

10. Capacity utilisation during the last five years (indicate the percentage capacity utilisation)

- a) 1988-89
- b) 1989-90
- c) 1990-91
- d) 1991-92
- e) 1992-93

11. If the average capacity utilisation is too low (say, less than 60%), indicate the reasons. (Tick () the relevant boxes in the first column and indicate your ranking of the problem in the order of importance in the second column using numerals from 1 to 12)

	Tick the boxes	Indicate Rank	
(a) Working Capital Problems			11a
(b) Power shortage			11b
(c) Marketing difficulties			11c
(d) Competition			11d
(e) Raw material shortage			11e
(f) Scarcity of skilled labour			11f
(g) Labour troubles			11g
(h) Unfavourable Govt. Policies			11h
(i) Spares shortage/Lack of service facilities			11i
(j) Low demand for products			11j
(k) Machine break down			11k
(l) Other reasons (specify)			11l

* FI - Fixed Investment WC : Working Capital

Indicate the percentage of each source of fund in the appropriate boxes. eg: Own Funds

FI	WC
25	60

 means that 25% of your. Fixed Investment requirement was met from your own funds. Similarly 60% of working capital requirement was met from your own funds.

12. Demand for products / service

A Quantitative Remarks

(Indicate whether you are giving Daily or Monthly figures)

a) Average Daily/Monthly Production

Qty.

12aa

b) Average Daily/Monthly Sale (in quantity)

12ab

B Qualitative Remarks

a) V.Good

12ba

b) Good

12bb

c) Average

12bc

d) Low demand

12bd

e) Any other

12be

13. Extent of present market :

Comments :
(if any)

a) With in the District

13a

b) Nearby Districts

13b

c) Within the state

13c

d) Outside the state

13d

e) Export

13e

14. Major buyers / market

Govt. Dept	Central Govt. Co.	State Govt. Companies	Private Companies	Consumer Product Dealers/ Retailers	Export	Others

14a

14b

14c

14d

14e

14f

14g

15. Marketing problems :

Comments :
(if any)

a) Unhealthy competition

15a

b) Proliferation of units

15b

c) Low demand

15c

d) Lack of Govt. support

15d

e) Lack of proper marketing information regarding demand/ supply

15e

f) Lack of capacity to offer credit

15f

g) Others

15g

16. Raw materials :

- a) Available 16a
- b) Scarce 16b
- c) Costly 16c
- d) From inside the state 16d
- e) From outside the state 16e
- f) Others 16f

Sources :

17. Working capital :

- a) Adequate 17a
- b) Inadequate 17b
- c) Others 17c

Working capital assistance obtained as a percentage of output

%	
	17d

18. Infrastructural facilities

: a1: available a2 : Not available a3 : Insufficient

Comments :
 (If any)

	a1	a2	a3
a) Power	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Land/Shed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Consultancy support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. Manpower

A) Existing strength 19aa

B) Skill level

- | | Nos. | |
|-----------------|--------------------------|------|
| a) Skilled | <input type="checkbox"/> | 19ba |
| b) Semi skilled | <input type="checkbox"/> | 19bb |
| c) Unskilled | <input type="checkbox"/> | 19bo |
| d) Others | <input type="checkbox"/> | 19bd |

20. Industrial Relations :

- a) Good b) Satisfactory
- d) Bad

21. Govt. subsidy and other concessions

A. Adequacy

- a) Adequate 21aa
- b) Inadequate 21ab

B. Time taken for disbursal :

- (a) Upto 6 months 21ba
- (b) 6 months to 12 months 21bb
- (c) More than 12 months 21bc

22. Level of Return on Investment

- (a) Less than 10 %
- (b) 10 - 20 %
- (c) More than 20 %

23. Govt. supports which you think are essential for you :

.....

.....

.....

.....

Survey Among Entrepreneurs**Questionnaire**

[Tick (✓) the appropriate boxes]

1. Name of the unit :

2. Year of setting up the unit :

3. Product :

4. Background of the chief promoter

(a) Educational (Please specify the qualification)

Technical	General	Others

(b) Predominant ancestral/family background

Business/trading	Industry	Govt.service	Pvt.service	Agriculture

(c) Whether employed earlier ?

Yes	No
-----	----

If 'Yes', whether the employment was in :

Own Trading	Govt.Dept.	Govt.Company	Pvt.Company	Others	Unemployed

5. Reason for setting up the unit

Getting a job was not easy	
Was joining the family business	
Wanted to set up own business and be independent	
Attracted by the incentives and promises offered by Govt.	
Realised about a business opportunity while working in another organisation	
Utilisation of wealth and experience earned elsewhere (Gulf or other states)	

6. Major problems, if any, faced by you in going ahead with your project

Lack of Guidance	Market	Labour troubles	Shortage of raw matl.	Shortage working capital	Shortage of skilled labour	Any other (Specify)

7. Major buyers / market

Govt. Dept	Central Govt. Co.	State Govt. Companies	Private Companies	Consumer Product Dealers/ Retailers	Export	Others

Note : This sheet was used only for the survey at Bangalore

Survey Among Potential Entrepreneurs Questionnaire

You need not reveal your name. Go ahead filling the questionnaire !

1. Educational background :
2. Family background (tick the appropriate boxes)

----- OCCUPATION -----

Relation	Agriculturist	Industrialist	Trading	Govt. Employee	Pvt. Employee	Others specify
Father						
Mother						
Brother(s)						
Sister(s)						

3. (a) What was your career ambition when you were in :

	To get a salaried employment	To start a business	To join family business	To go to gulf countries	To start an industry	Others (specify)
School						
College						
2 Years after completing education						
5 Years after completing education						

4. If by any chance you have decided to become an Industrialist,
 (a) What are the steps you have already taken ?
 (tick the appropriate boxes)

Identified Project	Located site	Taken SSI regn.	Applied for loan	Loan sanctioned	Selected machinery	Implemented the project

- (b) Now, if suddenly luck favours you in getting a Government job or a very good opportunity in the Gulf, what will you do ?

Reasons for the decision

Decide to take up the job and run the unit parallely	
Sell the unit and would take up job	
Handover the unit temporarily to a close friend / relative and take up job.	
Will not take up the job, but, will continue with the industry	

5. In your frank opinion, which of the following is better and why?

A Govt. Job	A job in a large Pvt. Company	Setting up own industry	Trading	Going to Gulf	Others (Specify)

6. Before deciding to set up your own enterprise, have you tried the following.

No. of years spent (after education)

Tried for a Govt. job	
Tried for a job through employment exchange	
Tried for a Gulf job	
Tried for private Jobs	
Engaged in agricultural activities	
Worked in Gulf	
Worked in Govt. organisation	
Worked in Pvt. organisation	
Was all the time trying to start a) a business b) an industry	
Was not doing any of the above	

7. Lastly, is 'industry' the only way before you ?

If 'Yes', why ?

If 'No.' why did you decide to be an industrialist ?

Indicate your project.

Survey among Non-Resident Keralites

QUESTIONNAIRE

CODE: BITS/NRI/01

Name :

Address:

Age:

Educational
Qualifications:

Family details:

Relationship Age Occupation

present
permanent

Tel/Fax.:

Work Experience:	Orgn. and Place	Nature of job	No. of years
1			
2			
3			
4			

If the enterprise is partly (P) or fully owned (F) by you or you have the full responsibility of an owner as in the case of many organisations in the Gulf (G) please write the appropriate letter in the box along with the staff strength.

INVESTMENT PLANS

Your investment plans are not something to be discussed openly. But, even a vague (NOT DECEPTIVE) answer would be highly useful for the Research which is being carried out..

In the next page, indicate your order of preference or the order in which you have made the investments by putting numerals in the ascending order, starting with 1. **FOR THE INVESTMENTS YOU HAVE ALREADY MADE , YOU MAY ENCIRCLE THE NUMBERS, IF YOU WISH. eg: ①**

Investment	at your native place	at Cochin	at Tvm	other towns	METROS (indicate name)
HOUSE/ PLOT					
AGRICULTURAL* LAND					
COMMERCIAL PROPERTY					
BUSINESS EST.					
INDUSTRY*					
STOCK MARKET	Primary Market		Secondary Market		
BANK DEPOSITS/ UNIT TRUSTS, ETC.		GOVT SCHEMES/ BONDS		OTHERS (specify)	

* Indicate the type of crop, type of industry, etc. and your functional role.

NOW, IF YOU DECIDE TO RETURN TO INDIA, WHAT WILL BE YOUR ACTIVITY THERE ? (tick the appropriate box)

Return to parent organisation		Start a trading/dealership firm	
Start an industry		Start a consultancy firm	
Engage in agricultural activities on a full time basis		Start a construction firm	
Start a service orgn. (specify)		Others (specify)	

CONSIDERING THE CHANGING INDUSTRIAL SCENBRIO IN INDIA, ESPECIALLY IN KERALA, WILL YOU CONSIDER THAT THE RIGHT OPPORTUNITY HAS COME TO INVEST IN OWN INDUSTRY? Y / N

If NO, which of the following could be the major reasons	Labour problems		Power shortage	
	Unstable policies		Bureaucratic and other interferences	
Any other reason (specify)				

Survey On Kerala as an Industrial Destination - Ranking of Critical factors

Questionnaire

I. Please rank the four states mentioned below in the order of your preference for setting up an industrial unit.

Kerala	
Andhra Pradesh	
Karnataka	
Tamil Nadu	

II. Give your ratings on the following critical factors (on a 0-5 Scale given against each factor) for industrial development for the states of Kerala, Andhra Pradesh, Karnataka & Tamil Nadu

	VeryBad	Bad	Satisfactory	Good	Very Good	Excellent
	0	1	2	3	4	5
1. Energy Availability						
Kerala						
Andhra Pradesh						
Karnataka						
Tamil Nadu						

	0	1	2	3	4	5
2. Land Availability						
Kerala						
Andhra Pradesh						
Karnataka						
Tamil Nadu						

	0	1	2	3	4	5
3. Favourable Environmental and Ecological conditions for Manufacturing units						
Kerala						
Andhra Pradesh						
Karnataka						
Tamil Nadu						

	VeryBad	Bad	Satisfactory	Good	Very Good	Excellent
	0	1	2	3	4	5
4. Favourable Labour attitudes						
Kerala						
Andhra Pradesh						1
Karnataka						
Tamil Nadu						

	0	1	2	3	4	5
5. Political stability and Government support						
Kerala						
Andhra Pradesh						
Karnataka						1
Tamil Nadu						

	0	1	2	3	4	5
6. Capital availability *						
Kerala						
Andhra Pradesh						
Karnataka						
Tamil Nadu						

*(not only in quantity but also in terms of lead time in sanctioning of loans and working capital)

III Lastly, please rank the six factors for industrial development in the order of importance as you consider.

Energy	
Land	
Favourable environment & ecological conditions	
Labour	
Political stability & Government support	
Capital Availability	
Any other (Specify)	

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