

KERALA'S ECONOMIC DEVELOPMENT

KERALA'S ECONOMIC DEVELOPMENT
PERFORMANCE AND PROBLEMS IN THE
POST-LIBERALISATION PERIOD

SECOND EDITION

EDITOR

B.A. PRAKASH



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PREFACE TO THE SECOND EDITION

Kerala, a state of southern India has received much attention from scholars due to its unique development experience. Kerala's development has three unique characteristics viz., (a) the attainment of a better quality of life as compared to other poorer states in India, (b) a low rate of growth and backwardness of productive sectors, namely agriculture and industry and (c) a very high incidence of out-migration and heavy reliance on migrant remittances. Kerala's development experience has attracted worldwide attention mainly because of the attainment of a better quality of life without achieving a substantial increase in investment, production and technological change of the productive and service sectors. Scholars who had studied this paradoxical development began to consider this a wonderful Kerala model of development. Citing a few demographic indicators like birth rate, death rate, infant mortality rate, life expectancy etc., they argued that people in Kerala had a better quality of life. These scholars have taken a narrow approach without considering the hard realities of the people with respect to income, employment, consumption, housing, health, availability of nutritious food, poverty and other aspects of life. They have taken the position that there is not much of a relationship between the attainment of better quality of life and the attainment of economic growth. Attaining a higher economic growth rate through the promotion of private investment and technological and institutional change has not been a major concern in the policy approach for the economic development of Kerala. The Structural Adjustment Reforms implemented at the national level during the early 1990's in this context have not got much support in Kerala. The Left Democratic Front government which was in power during the second half of the 1990's opposed the reforms.

Two major attempts were made by the scholars to examine the trends and patterns of economic growth and development and to present the problems and development issues of the state's economy during 1990s. In the absence of serious works on the development performance of Kerala, a volume titled *Kerala's Economy: Performance, Problems and Prospects* was published in 1994. This volume, a basic work on Kerala's

economy contained 20 essays and attempted a detailed examination of the growth, development and problems of the state's economy over the period 1956–91. With the implementation of the Structural Adjustment Reforms at the national level, some changes have occurred in the Kerala's economy during the decade of the 1990s. A second volume titled *Kerala's Economic Development—Issues and Problems* was published in 1999, it examined the changes that occurred in Kerala's economy consequent on the introduction of the Structural Adjustment Reforms in the country.

During the 1990s the state's economy registered a moderate growth during the first half as compared to the second half of the decade. The major factors which influenced the economy during the first half of 1990s were the implementation of the new economic policy reforms of the central government since 1991, the spurt in migration to the Gulf countries and the consequent increase in the inflow of remittances, a steady increase in the price of most agricultural products and an increase in exports. But the state's economy experienced a severe recession during the second half of 1990s. The major factors contributing to the recession were the large scale return of emigrants from the Gulf countries, a decline in the price of agricultural commodities, an unprecedented fiscal crisis of the state government, infrastructural backwardness and shortages, a low rate of investment and outflows of capital, industries, entrepreneurs and professional students to other states. Though the economy registered moderate growth during the first half of the 1990s, the severe recession during the second half reversed these gains. By the beginning of the new millennium, Kerala remained a backward economy with underdeveloped productive sectors, low levels of technology, inadequate infrastructure, a slow pace of structural transformation and a high incidence of poverty and unemployment.

The book focuses on the economic backwardness, the economic reforms implemented since the early 1990s, the broad economic changes during 1990s and the current economic problems and development issues of Kerala. This volume begins with an introduction and a chapter on the economic backwardness and economic reforms in Kerala. The second section contains essays on demographic change, employment, unemployment, emigration and poverty. The next section deals with agricultural performance and the impact of trade reforms on commodity prices. The fourth section examines the structure and growth of industry in the post-liberalisation period and the development of information technology. The next section contains chapters on the development of tourism and commercial banking. The last two sections examine the health scenario

in Kerala, decentralised planning, the fiscal crisis and its impact on public health services.

Since the book is addressed to a wide audience, we have provided a data based analytical account of the economic issues and problems. Wherever possible the latest developments have been provided depending on the availability of data. An extensive bibliography at the end of each chapter has also been included for those who wish to use the book as a starting point for further empirical research.

This book is the outcome of the collaborative efforts of 17 scholars who have made significant research contributions to Kerala's economic issues. I am grateful to all of them for their contributions to this book.

Thiruvananthapuram
April 2004

B.A. Prakash

PREFACE TO THE FIRST EDITION

The unique development experience of Kerala has attracted widespread interest. The development performance of Kerala's economy was provided in a volume entitled *Kerala's Economy: Performance, Problems and Prospects* in 1994. That book, a basic work on Kerala's economy, contained 20 essays and attempted a detailed examination of the development, growth and problems of the state's economy over the period 1956 to 1991. Though the 1990s has witnessed rapid economic changes due to new economic policies, changes in migration, urbanisation, etc., many attempts have not been made to examine the emerging development issues and problems. This is the context of the present book.

The performance of Kerala's economy during the 1990s was very different from the previous decade. During the first half of the 1990s, the economy achieved a higher growth rate due to better performance of the secondary and tertiary sectors. But the economy could not sustain the tempo of development and has reverted to a recession since the mid-1990s. During 1996 and 1997, Kerala experienced one of the worst recessions in its recent history.

The 1990s also witnessed the emergence of new and more acute problems in Kerala. On the demographic front, increase in the share of aged people became a serious social and economic problem. Though there has been a decline in rural poverty, the incidence of urban poverty registered an increase. There has been an alarming growth in the rate of educated unemployment. Due to low growth in employment opportunities, unemployed persons were forced to migrate to other parts of India and abroad. Steep fall in the prices of commercial crops, especially coconut and rubber, has created a crisis situation for lakhs of small farmers. The industrial policy failed to make any substantial impact on the backward industrial sector of Kerala. Urbanisation created further severe problems like increase in the incidence of unemployment and poverty and inadequate infrastructural facilities. The financial crisis of the state government, which started during 1980s, assumed serious proportions during the 1990s.

This volume begins with an Introduction and a chapter on the economic reforms and economic performance of Kerala's economy. The second section contains essays on aging and social security, poverty and the public distribution system and educated unemployment. The next section deals with inter-regional migration of educated labour, economic impacts of Gulf migration and urbanisation in Kerala. The fourth section examines the performance of agriculture, the natural rubber sector, emerging agrarian relations in Kuttanad and labour shortage in agriculture. The next section contains chapters on economic liberalisation and industrial development, software development, explanations for industrial stagnation, and the power crisis. The last two sections examine the financial crisis, poor management of state finances, and impact of WTO on Kerala's economy.

Since the book is addressed to a wide audience, we have provided a databased analytical account of the economic issues and problems. Wherever possible the latest developments have been provided depending on the availability of data. An extensive bibliography at the end of each chapter has also been included for those who wish to use the book as a starting point for further empirical research.

This volume is the outcome of the collaborative effort of 20 scholars who have made significant research contributions to Kerala's economic issues. I am grateful to all of them for their contribution to the volume. Special mention may be made of Prof. P.P. Pillai of Calicut University, Prof. K. Ramachandran Nair of Kerala University, Prof. E.T. Mathew of the Centre for Development Studies, Prof. M. Mohandas of Kerala Agricultural University, Prof. M.K. Sukumaran Nair of Cochin University of Science and Technology, and Dr. N.J. Kurian of the Planning Commission for their active co-operation and assistance. I take this opportunity to express my gratitude to all of them.

Trichur
August 1999

B.A. Prakash

I

INTRODUCTION

In spite of the economic changes of the last four-and-a-half decades, Kerala remains a backward economy with underdeveloped productive sectors, an employment structure characterised by casual and self-employment, low levels of technology, inadequate infrastructure, slow pace of urbanisation and structural transformation, and high incidence of poverty and unemployment. The development strategy pursued has been one of accelerated growth through meagre plan investment and expansion of the public sector. The economic policies pursued have emphasised quantitative policy instruments, followed market-hostile policies, and ignored the role of private investment in the promotion of economic growth. Though, since 1991 structural adjustment reforms were implemented by the central government, the state government did not make many changes in policy in line with the national policy till the end of the 1990s. This volume focuses on the state's economic backwardness, the economic reforms implemented since the early 1990s, the broad economic changes during the 1990s, and the current economic problems and development issues of Kerala. It contains chapters on economic backwardness and economic reforms, demographic change, employment, unemployment, emigration, poverty, performance of agriculture, impact of trade reforms on commodity prices, structure and growth of industry, information technology (IT), power crisis, development of tourism and commercial banking, health status, decentralised planning and the fiscal crisis.

The volume starts with a chapter by B.A. Prakash examining the causes for Kerala's low rate of growth and economic backwardness, the plan strategy and economic policies pursued, and the economic reforms implemented since 2001. The author presents three hypotheses to explain the causes of economic backwardness of Kerala. The study concludes that:

1. Despite the economic changes of the last four-and-a-half decades, Kerala remains a backward economy.

2. The core development strategy pursued has been the promotion of plan investment and expansion of the public sector. A major limitation of the economic policy pursued was the total neglect of private investment in the promotion of economic growth.
3. Despite the implementation of market-oriented reforms by the central government since 1991, the state has not made any significant changes in its economic policy during the 1990s. However, the economic reforms introduced by the UDF government since 2001 have created more favourable conditions for the promotion of private investment, technological progress and institutional changes required for rapid growth.

The chapter by S. Irudaya Rajan and Sabu Aliyar discusses the demographic changes in Kerala during the 1990s and beyond. The authors discuss population size and growth, mortality and life expectancy, fertility, household structure and amenities, and the emerging demographic scenario during the first half of the 21st century. The major conclusions of the study are the following:

1. Kerala's demographic trends in the first half of the 21st century will be dramatically different from those of the second half of the 20th century. Whereas the total population of the state has increased by 135 per cent in the second half of the 20th century, the growth in the population during the next half-century will be negligible by comparison.
2. The crude death rate declined from about 20 per 1,000 to about six per 1,000 population in the latter half of the 20th century, but it is likely to increase to 13 per 1,000 during the first half of the 21st century. The crude birth rate decreased from 40 per 1,000 to about 16 per 1,000 in the last half of 20th century, and is likely to remain more or less stable in the next century.
3. While Kerala experienced varying degrees of net out-migration and net emigration in the second half of 20th century, the migration trend in the first half of 21st century is somewhat uncertain. However, it will depend more on socio-economic developments than on demographic trends.
4. The socio-economic implications of the reversal of the demographic trends will be far-reaching. In the first half of the 21st century, the major socio-economic problems will involve finding gainful employment for the older working age population, maintenance of health and nutrition of the elderly, and provision of means of

subsistence through social security, pension, and other support programmes.

The chapter by B.A. Prakash and M.P. Abraham presents the trends, patterns, and structure of employment and unemployment during the 1990s. Based on the National Sample Survey definition and data, the chapter examines the trends and patterns of rural and urban employment and unemployment in Kerala. The major findings of the study are the following:

1. In spite of economic change and structural transformation, there has not been much change in the pattern of rural employment during the 1990s. Kerala's rural labour market is still composed of self-employed and casual labour with a small share of regular employment.
2. Compared to the rural labour market, more changes have occurred in the urban labour market during the 1990s. The urban labour market witnessed a moderate increase in the share of secondary and tertiary employment. However, its structure is still dominated by self- and casual employment.
3. The economic reforms implemented at the national level since 1991 have not succeeded in promoting increased private investment or generation of substantial employment in the organised public and private sectors.
4. Kerala's unemployment—both urban and rural—has been growing and reached an alarming level by the beginning of the millennium. Kerala's unemployment is characterised by the high incidence of unemployment among youth and educated people. Another feature of the educated unemployment in Kerala is the very high incidence of female unemployment.
5. The high incidence of unemployment in rural Kerala may be attributed to factors such as the price fall of agricultural commodities, the shift in occupational pattern from agriculture to non-agriculture, small and tiny nature of agricultural holdings, decline in most traditional, labour-intensive industries, and the economic consequences created due to the exodus of Kerala emigrants from the Gulf countries.

B.A. Prakash's chapter on emigration to West Asia examines the trends in emigration, remittances, return emigration, and causes of return.

The study also provides the findings of a field survey conducted in Varkala town about return emigration. Its major conclusions are as follows:

1. During the first half of the 1990s, there was a spurt in emigration to West Asian countries such as Saudi Arabia, United Arab Emirates (UAE), Bahrain, Kuwait, Oman and Qatar. But the situation has changed drastically since 1996 and there had been an unprecedented return of the emigrants.
2. During the late 1990s, Kerala received nearly Rs 12,600 crore annually as worker remittances from the Gulf countries.
3. The incidence of emigration was higher in the northern districts of Kerala compared to the southern districts.
4. Many factors contributed to the exodus of emigrants from the West Asian countries, especially Saudi Arabia and UAE. The change in immigration laws, imposition of stringent restrictions on emigrant labour, measures discouraging emigration of unskilled workers, reduction in wage rates, curtailment of non-wage benefits, and policies of emiratization, etc., were the major causes of return. The results of the sample survey conducted in Varkala town revealed that decline in job opportunities, reduction in wage rate, strict enforcement of immigration laws and health problems are the major causes of return.
5. Among the returnees, a majority is unemployed and faces serious financial problems. The information collected from travel agents, merchants associations, traders, banks, and returnee associations show that Varkala has been experiencing a recession since 1996 due to large-scale return of emigrants.

K.P. Mani's chapter on poverty in Kerala discusses the trends in urban and rural poverty. It starts with a review of the concept of poverty, the various definitions used to define poverty in India by scholars and agencies since the 1950s, the estimates on poverty ratios for the country as a whole, and the limitation of the methodology used to define and estimate poverty in India. In the second part, the author presents the trends in rural and urban poverty in Kerala. He argues that the unprecedented decline in poverty in Kerala between 1977 and 1987 could be attributed to the substantial flow of private foreign remittances and the generation of adequate supplementary incomes through poverty alleviation programmes. The study concludes that the concept of poverty and the estimation of the poverty line are complex issues; differences in

methodology lead to different estimates. Viewing from different angles, it may be inferred that Kerala leads among Indian states with lesser rural and urban poverty. Trends in recent years further indicate that the number of people below the poverty line will be substantially reduced in the coming years in Kerala.

P.M. Thomas's chapter on agriculture focuses on the aggregate performance of the agriculture sector of Kerala during the 1990s. It starts with a review of the agricultural performance examining growth in agriculture, structural change in agriculture, changes in land-use pattern, cropping pattern and growth trends in area, and production and productivity of major crops. The second section examines the causes for changes in cropping pattern, the role of high-yielding varieties, chemical fertilisers, rainfall and irrigation and enhancing crop productivity. Trends in the farm prices of major crops in the state since the introduction of the new economic policy are analysed in the third section. The last section examines the current problems in agriculture like declining profitability of crops, uneconomic size of operational holdings, shortage of farm labourers, increase in land prices, and conversion of agricultural land for other uses. Based on a detailed examination of agricultural performance, the study arrived at the following conclusions:

1. After the early years of the 1990s, the agricultural sector witnessed a decline in the growth rate.
2. During the 1990s, there has been a change in the cropping pattern in favour of commercial crops.
3. During the second half of the 1990s, the state experienced a sharp decline in the farm prices of commercial crops, resulting in an unprecedented crisis in agriculture.
4. Declining profitability, uneconomic size of operational holdings, shortage of farm labourers, and the high prices of agricultural land and its conversion for non-agricultural uses are some of the major current problems in the state.

Poornima Varma's chapter discusses the impact of liberalisation of the economic policy regime since 1991 on the prices of natural rubber and coconut in Kerala. The chapter starts with a brief description of the database and analytical framework of the study. The second section tries to document and analyse major policy changes in the sphere of agriculture in general and with respect to rubber and coconut economy in particular. The third section provides an analysis of the impact of trade liberalisation

on prices of rubber, coconut and coconut oil. Based on a detailed examination of the impact of new economic policy on the prices of natural rubber and coconut, the author concludes that, on the whole, the decade of 1990s has been one of greater integration of rubber and coconut sectors with the world market. An important fallout of trade liberalisation is the narrowing gap between domestic and international prices. In the case of natural rubber, since 1992, the domestic and world prices have been moving together. The unprecedented increase in the prices of rubber during the mid-1990s and the drastic decline since 1995 could be attributed to this movement. The integration with the international markets led to a sharp decline in the nominal and real prices of rubber, coconut and coconut oil. The analysis of real prices with respect to the price of rice and the Consumer Price Index for Agricultural Labourers (CPIAL) revealed that the price movement was unfavourable to crops especially during the post-liberalisation period. The study, however, establishes no causal link between liberalisation-induced growth in imports on the one hand and the fall in prices on the other.

K.P. Rajesh's chapter on industry examines the structure and growth of Kerala's industry in the post-liberalisation period. It starts with a review of Kerala's position on the industrial map of India. District-wise distribution of industries, structure and growth of industrial production, Kerala's industry during the 1990s, Kerala's share in the investment proposals in the 1990s, wage rates and industrial disputes, and growth of small-scale industries are the other aspects discussed in the chapter. Its major conclusions are the following. Kerala had a relatively backward position in the industrial map of India in the 1990s. In contrast to the national trend, unregistered manufacturing recorded a relatively high growth rate in the post-liberalisation period in Kerala. Inter-district disparity in the share and growth of industries and industrial production were observed. Industrial production in Kerala was concentrated in a few industries; the degree of concentration has increased in the post-reform period. Similar to the national trend, in Kerala too, we have seen a deceleration in the growth rate of gross value added in the manufacturing sector in the post-liberalisation period. There has been significant growth in employment in Kerala in the post-liberalisation period. The analysis of the investment proposals in Kerala during the 1990s clearly shows that Kerala is not a very attractive destination for either domestic or foreign investors. The study concludes that both nominal and real wage rates in Kerala industry were lower in both the 1980s and the 1990s compared to those prevailing all over India. Altogether, Kerala's industrial performance during the

1990s was not favourable in terms of the output growth, particularly in the factory sector, but it was relatively favourable in terms of employment as well as the growth of informal and small-scale sectors.

Tomy Joseph's chapter on IT evaluates the policy initiatives by the Government of Kerala in the development of the IT sector in the state against the background of the Government of India's efforts in laying a foundation for the IT sector in the country. The chapter examines IT policy in India, performance of the Indian IT industry, emerging opportunities in IT, and IT policy and performance in Kerala. The major conclusions of the study are the following.

The new growth potential sectors in IT are identified as IT-enabled services and e-commerce. Kerala, which has lagged behind in software development, can make achievements in some of these segments by highlighting its strengths. The growth of the service sectors, the high physical quality of life, and the high telephone and Internet density are visualised as strengths. The new industrial, IT and labour policies intend to provide an investment-friendly climate in the state. While these policies provide optimism, success depends on consistent and speedy implementation. While the new labour policy provides a labour-friendly environment for investment, it is necessary to involve new ways of providing social security, as many of the jobs created would be in the informal sector with increased feminisation. The government can play a prominent role as an investor, a consumer, and a catalyst rather than as a regulator. The development experience of Kerala suggests the persistence of a number of locational disadvantages, which persist even after the liberalisation process. Inconsistency in the policies, administrative inefficiency, poor labour relations, and primitive infrastructure still remain to be addressed amply. The challenge with special reference to IT is the accelerated diffusion of IT, revamping of the higher education system, and the evolution of new social security schemes for the IT labour force.

N. Vijayamohanan Pillai's chapter on power crisis discusses the grave power crisis in Kerala and the reforms implemented in this sector. The chapter starts with a discussion of the growth and performance of the power sector in Kerala. In the subsequent section, the author examines the experiences with power sector reforms. The major issues discussed and the major conclusions of the study are the following. Due to the lack of a clear perspective of power requirement, the vested interest of the Kerala State Electricity Board (KSEB) against introduction of non-hydroelectric power, low investment in capacity expansion, inordinate delays in completion of power projects, inefficiency in the generation and distribution of

power, false energy surplus propaganda, and lack of a vision of the state government, there was not much increase in installed capacity or firm power capacity expansion for the two decades since the commissioning of the Idukki project in 1976. Due to delays in project completion, massive leakage, subsidised sales, distributional loss, power theft, and lack of any effort to improve financial performance, the KSEB faced severe financial crisis continuously. The fiscal crisis of the state government and the resulting decline in conventional sources of funds for capacity expansion and meeting other financial requirement of the KSEB aggravated the financial situation. This is the context in which the government has initiated steps for power sector reforms. The Left Front government, which was in power in the state during the second half of the 1990s, initiated some steps to restructure the functioning of the KSEB by creating profit centres at the levels of generation, transmission, and distribution. However, the UDF government has decided to join the group of other 15 states in the country engaged in power sector reforms at the terms and conditions of the central government in 2001.

Nalini Netto's chapter on tourism development presents the development of tourism in Kerala during the 1990s. It starts with a general introduction of tourism and Kerala's place on the international tourism map. In subsequent sections, the author examines the role of promotional agencies, tourism supply aspects, impacts of tourism, and future prospects. The issues discussed in the chapter are the following. Kerala is one of the major tourism destinations in India and the tourism sector in the state is emerging as an important sector of the economy. There has been a steady increase in the growth of both international and domestic tourism. More than 2 lakh foreign tourists come to Kerala annually and Kerala earns more than Rs 500 crore per year. The important destinations for foreign tourists in Kerala are Thiruvananthapuram, Kovalam, Kochi, Kollam, Alappuzha and Kottayam. Besides the department of tourism, a number of other agencies like the Kerala Tourism Development Corporation are engaged in the promotion of tourism. The private sector has also played a crucial role in the development of Kerala as a major tourist destination of India. The major positive impacts of tourism in Kerala are generation of employment opportunities, earning of foreign exchange, and infrastructure development. The aim of the government is to develop Kerala into an upmarket, high-quality tourist destination with a focus on conserving and preserving the heritage and environment, enhancing productivity and income by creating employment opportunities, and making tourism an important sector of the economy.

P.D. Jeromi's chapter on commercial banking examines the progress of commercial banking in Kerala, trends in credit deposit ratio (CDR), the level of deployment of credit, and the reasons for the low level of credit deployment. The chapter starts with a review of the progress of commercial banking in Kerala. In subsequent sections, trends and comparative perspectives of CDRs, assessment of the level of bank credit, and the reasons for low credit are discussed. The major findings of the study are the following. In absolute terms, the level of credit and its rate of growth were reasonably good. However, in relative terms, the level of credit was lower especially during the 1990s. Commercial banks in Kerala were more successful in deposit mobilisation than credit deployment. There was a decline in CDR during the 1990s and early years of the 21st century. The CDR in neighbouring states has been far higher than in Kerala. Some nationalised banks have lagged behind in credit deployment and also in investment and while number of accounts per thousand population was relatively high in Kerala, both per capita credit and credit per account were lower. The reasons for low level of credit can be the lack of credit absorption capacity in the weak productive sectors and also banks not evolving suitable policies to expand credit to the rising services sector and wean away borrowers dependent on private financiers.

The chapter on health by A.V. George and Sindhu S. Nair presents an overview of the health scenario of Kerala. It starts with a discussion of high physical quality and the Kerala model of development. In subsequent sections, the authors examine the health policy of Kerala and the budgetary allocation for health services. The major issues discussed in the chapter are the following. The good health status attained by Kerala has been acclaimed as good health at low cost. Good health depends on a combination of political, social, educational and health advancement. The high level of health status of Kerala is also attributed to the spread and accessibility of medical care in the state. Besides the role of the state in the promotion of health through the public sector, two other factors have contributed to the attainment of better health. First, the Government of India at subsidised rates has provided the food grains distributed in Kerala through the Public Distribution System (PDS). Second, the large amount of remittances sent by Keralite migrants living in other parts of India and abroad has also helped a vast section of the state's poor attain better consumption levels. The foundation of health facilities was laid down even before the formation of the Kerala state and expanded prodigiously from 1961 to 1991. But the fiscal deficit of the 1980s led to a fall in the supplies in the middle-level hospitals, which were most accessible to the

common people. The resource crunch also led to a fall in the quality of medical care in government hospitals. In this context, the government has drawn up a new health policy aiming at bringing about equity and cost-effectiveness. Priority is given to preventive care and elderly rehabilitative programmes.

D. Varatharajan's chapter, also on health, examines the impact of fiscal crisis on public health services in Kerala. The author presents the nature of Kerala's fiscal crisis, its health system, the rationale for government intervention in health and fiscal crisis, and public healthcare services. The author points out that the Kerala government has faced a severe fiscal crisis during 1999–2000. The fiscal deficit reached 7.26 per cent of Gross State Domestic Product (GSDP), the Debt GSDP Ratio and debt servicing crossed their acceptable limits, and 27.5 per cent of the revenue receipts was used to service debt in 2001–02. A notable conclusion of the study is that the fiscal crisis has not reduced the government health expenditure. While budgetary resources to health have grown four times between 1991–92 and 2002–03, the government resources to health have grown five times. An interesting observation of the study is that the increase in the share of health expenditure is mainly due to the increase in staff salary and has not improved the public health services in Kerala. Steep increase of the salary component in revenue expenditure led to cutback on supplies and maintenance; the cutback was felt heavily by the district and *taluk* hospitals. Capital expenditure as a proportion of total government health expenditure dropped to 3.3 per cent in 2002–03 from 7 per cent in 1994–95. Health's share in total government maintenance expenditure has come down from 1.39 per cent in 1990–91 to 0.78 per cent in 1990–2000. Even though the salary component of health expenditure rose, it did not increase staff strength. Manpower in the government allopathic system declined or remained static during the 1990s while bed strength grew moderately. Thus the increase in government expenditure failed to improve healthcare access to people for whom the public healthcare system exists.

E.M. Thomas's chapter on decentralised planning evaluates the performance of decentralised planning based on a study of four grama panchayats. It starts with a review of the decentralised planning implemented in Kerala since 1996. In subsequent sections, the author examines the people's participation and performance of development and beneficiary projects. Based on primary data collected from four grama panchayats in Thrissur district, the study arrives at the following conclusions. The percentage of people who participated in grama sabha meetings ranged

from 4.6 per cent to 11.6 per cent in the panchayats. The low participation was attributed to the people's lack of awareness about the importance of the grama sabha, lack of interest of the educated middle class, and the tendency of the people to not attend the meeting once they received their benefits. A majority of the people considers the grama sabha meeting as a programme for the poorest of the poor. The study results suggest that the spillover ratio of the development project was very high. The major causes were inefficient beneficiary committees, lack of funds, seasonal change, delays in starting projects, inadequacy of machinery, and delays in the execution of works by public sector undertakings like the KSEB and the Kerala Water Authority (KWA). The major causes for the droppage of plan projects are identified as non-viability of projects, lack of funds, non-cooperation from farmers, delay in execution of projects by public sector agencies, inefficiency of beneficiary committees and boundary disputes. On the other hand, the performance of beneficiary projects was better than that of the development projects.

The chapter on the fiscal crisis in Kerala by K.M. Abraham examines the nature, magnitude and causes of the crisis during the period 1983–2003. The chapter starts with an overview of the structure of public finance in Kerala between 1983–2003. The nature of the crisis is explained based on the observations in the White Paper on State Finances, 2001. The increase in establishment expenditure due to pay revisions, enhancement of plan outlay without adequate resources, slump in resource mobilisation, decline in sales tax collection and the decline in central transfers have been identified as the major causes of the fiscal crisis.

ECONOMIC BACKWARDNESS AND
ECONOMIC REFORMS IN KERALA
B.A. Prakash

2

INTRODUCTION

Kerala, a state in southern India, has received much attention from scholars due to its unique development experience. Kerala's development has three unique characteristics viz., (a) the attainment of a better quality of life as compared to other poorer states in India, (b) a low rate of growth and backwardness of productive sectors, namely agriculture and industry, and (c) a very high incidence of out-migration and heavy reliance on migrant remittances. Kerala's development experience has attracted worldwide attention mainly because of the attainment of a better quality of life without achieving a substantial increase in investment and production and technological change of the productive and service sectors. Scholars who had studied this paradoxical development began to glorify this 'wonderful' Kerala model of development. Citing a few demographic indicators¹ like birth rate, death rate, infant mortality rate, life expectancy, etc., they argued that people in Kerala had a better quality of life. These scholars have taken a narrow approach without considering the hard realities of the people with respect to income, employment, consumption, housing, health, availability of nutritious food, poverty and other aspects of life. They have taken the position that there is no relationship between the attainment of better quality of life and backwardness of the economy. In spite of the economic development of the last four-and-a-half decades, Kerala has remained a backward economy with underdeveloped productive sectors, low levels of technology, inadequate infrastructure, slow pace of structural transformation, and high incidence of poverty and unemployment. Due to lack of gainful employment opportunities, the unemployed labour force is forced—in large numbers—to migrate to other parts of India and abroad for survival. The total number of out-migrants and emigrants was estimated as 20.54 lakh in 1998.² Kerala receives about Rs 15,000 crore as worker remittances from foreign countries annually.³

The objectives of the study are the following: (a) to study the causes for the low rate of growth and economic backwardness of Kerala, (b) to examine the plan strategy and economic policies pursued and its consequences and (c) to assess the economic reforms implemented since 2001. Here we present the following hypotheses:

1. Kerala remained backward with underdeveloped productive sectors, low levels of technology, inadequate infrastructure, slow pace of structural transformation and high incidence of unemployment due to its failure to create the conditions required for attaining high growth rates.
2. The development strategy of accelerating growth through plan investment and expansion of the public sector, formulating economic policies emphasising quantitative policy instruments, ignoring the role of private investment and pursuing market-hostile policies have failed to create conditions for attaining a higher growth rate.
3. Contrary to the economic reforms up to the end of the 1990s, the reforms implemented since then have created more favourable conditions for higher private investment, technological progress, institutional changes and improvements in state finances.

This chapter is divided into five sections. In the first three sections, we present the theoretical framework, a discussion on the backwardness of the economy, and the plan strategy and economic policies. The subsequent two sections discuss the consequences of the plan strategy and the economic policies and reforms of the United Democratic Front (UDF) government.

THEORETICAL FRAMEWORK

Simon Kuznets has defined a country's economic growth as 'a long term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands' (Kuznets, 1974). The three principal components of this definition are of great importance

1. The sustained rise in national output is a manifestation of economic growth, and the ability to provide a wide range of goods is a sign of economic maturity.

2. Advancing technology provides the basis or preconditions for continuous economic growth.
3. To realise the potential for economic growth inherent in new technology, institutional, attitudinal and ideological adjustments must be made.

Kuznets has also isolated the following characteristic features manifested in the growth process of almost every developed nation: high rates of growth of per capita output and population, high rates of increase in total factor productivity, high rates of structural transformation of the economy, high rates of social and ideological transformation, and the propensity to reach out to the rest of the world for markets and raw materials.

Based on the economic growth perspective of the Third World countries, Michael P. Todaro identifies three crucial factors of economic growth: (a) capital accumulation, including all new investment in land, physical equipment and human resources; (b) population growth and the associated eventual increase in the labour force; and (c) technological progress. In its simplest form, technological progress results from new and improved ways of accomplishing traditional tasks such as growing crops, making clothing, or building houses. There are three basic classifications of technological progress: (a) neutral, (b) labour savings, and (c) capital savings (Todaro, 1998).

Todaro also emphasises the role of capital accumulation in three broad areas. Capital accumulation results when some proportion of present income is saved and invested in order to augment future output and income. First, investments in new factories, machinery, equipment and materials that increase the physical capital stock of a nation result in increase in output levels. Second, the directly productive investments are supplemented by investments in social and economic infrastructure—roads, electricity, water and sanitation, communications, and the like—that facilitates and integrates economic activities. Third, investments in human resources can improve its quality and thereby have the same or an even more powerful effect on production as an increase in human numbers. Formal schooling, vocational and on-the-job training programmes, adult and other types of informal education and professional education may make an enormous difference in the quality, leadership, and productivity of a given labour force.

Based on the above two theoretical frameworks, we can conclude the following. For achieving high rates of economic growth and structural transformation of a backward economy, the following preconditions are

required: (a) high rates of investment in physical capital stock, social and economic infrastructure, and human resources; (b) technological progress, resulting in increase in factor productivity; (c) population growth and associated increase in labour force; and (d) institutional, attitudinal and ideological changes creating conducive climate for promoting investment, production, productivity, technological progress and occupational and geographic mobility of the labour force.

The market mechanism is the basic mechanism, which determines the working of an economy. State intervention in the market is resorted through public expenditure and policy instruments. Though public expenditure is incurred for different purposes, a good part of the public expenditure in developing countries is incurred as plan expenditure aiming at socio-economic change. The policy instruments widely used in developed and underdeveloped countries are general and specific instruments (Chenery, 1958). The general instruments act as broad aspects of the economy: the money supply, the government budget, investment, consumption, etc. The specific instruments are applied differently to individual sectors of the economy, as illustrated by subsidies, tariffs, etc. To achieve a given effect on production, or use, of any commodity, there is a choice between controlling a price and controlling a quantity, by using either price or quantity variables as instruments. Thus, the main issues of economic policy are concerned with the choice between using general and specific instruments and between using prices and quantities as control variables.

KERALA: A BACKWARD ECONOMY

In this section, we examine the state of the economy, economic growth, and structural change during the 1990s. In spite of the economic development for three-and-a-half decades, Kerala has remained as a backward economy till the beginning of the 1990s. Though there has been a continuous shift in the cropping pattern from food crops to cash crops, the agriculture has remained backward with traditional methods of cultivation and production of agricultural raw materials for export. Due to the very small size of agricultural holdings, the majority of the farmers considered agriculture as a subsidiary occupation. The industrial sector has remained backward with the dominance of labour-intensive, traditional industries like coir, cashew, handloom, handicrafts, *beedi*-making, etc. Industrial investment in modern industries has been very low. Infrastructure such as roads, inland transport, electricity, water supply, waste water disposal, urban infrastructure, irrigation, etc., have remained backward

with chronic shortages due to the meagre financial resources available for development and maintenance. Arts and science colleges with only a few professional educational institutions to train students in medicine, engineering, technology, management, etc., have dominated the higher educational sector. The state has an outdated system of administration and lacks a conducive political and labour atmosphere for promotion of private investment, technological progress, and rapid economic change. In this context, there has been a continuous outflow of capital, credit, entrepreneurs, skilled workers, and professional students to other states. The structure of employment has remained backward with the dominance of self-employment and casual employment and with limited regular employment. The state has had a high incidence of poverty and unemployment. As gainful employment opportunities were scarce in the state economy, the unemployed labour force—especially the unemployed educated youth—were forced to migrate to other parts of India and abroad for employment. Kerala, thus, relied heavily on remittances of migrants for its survival.

During the 1990s the state's economy registered a moderate growth during the first half, compared to the second (Table 2.1). The major factors, which influenced the economy during the first half of the 1990s were the implementation of the new economic policy reforms of central government since 1991, the spurt in migration to the Gulf countries and the consequent increase in the inflow of remittances, a steady increase in the price of most agricultural products, and an increase in exports. The revival of migration to the Gulf led to spurt in prices of land and real estate as well as growth in construction activities, trade, commerce, transport and

Table 2.1
Annual Average Growth Rate of Net Domestic Product of Kerala

<i>Sector</i>	<i>1980–81</i>	<i>1985–86</i>	<i>1990–91</i>	<i>1995–96</i>
	<i>to</i>	<i>to</i>	<i>to</i>	<i>to</i>
	<i>1985–86</i>	<i>1990–91</i>	<i>1995–96</i>	<i>2000–01</i>
	<i>(1980–81</i>	<i>(1980–81</i>	<i>(1980–81</i>	<i>(1993–96</i>
	<i>prices)</i>	<i>prices)</i>	<i>prices)</i>	<i>prices)</i>
Primary	0.20	5.14	2.75	1.02
Secondary	0.58	6.15	8.19	3.34
Tertiary	3.24	5.31	9.19	8.06
Net State Domestic Product	1.41	5.30	6.76	5.06

Sources: State Planning Board, 2003; Department of Economics and Statistics, 2001.

Table 2.2
Per Capita Income (Net Domestic Product) at 1993–94 Prices

<i>Year</i>	<i>All India</i>	<i>Growth Rate (%)</i>	<i>Kerala</i>	<i>Growth Rate (%)</i>
1993–94	7,698	–	7,988	–
1994–95	8,069	4.82	8,516	6.61
1995–96	8,479	5.08	5,748	–32.50
1996–97	8,987	5.99	8,987	56.35
1997–98	9,241	2.83	9,079	1.02
1998–99	9,647	4.39	9,619	5.95
1999–2000	10,067	4.35	10,178	5.81
2000–01 ^a	10,306	2.37	10,627	4.41
2001–02*	10,754	4.35	11,046	3.94

Sources: State Planning Board, 2003; Department of Economics and Statistics, 2001.

Notes: ^a Provisional

*Quick estimates

other services. On the whole, the state economy experienced an inflation-oriented economic growth during the first half of the 1990s. The growth in per capita income was also moderate during that period (Table 2.2).

On the other hand, there has been a decline in the growth rate during the second half of the 1990s. The magnitude of the fall in growth rate is likely to be much larger than the estimated growth rate. Available evidences suggest that the state economy experienced a severe recession during the second half of the 1990s due to the following reasons:

1. The state has witnessed an unprecedented return of emigrants from the Gulf countries since 1996, with very serious economic consequences. According to one estimate, nearly 3.11 lakh persons returned from the Gulf countries between 1996 and 1998.
2. During the second half of the 1990s there has been a decline in the price of agricultural commodities such as rice, ginger, banana, cashew nut, tea, coffee and rubber. It may be noted that rice and rubber are the two major crops of Kerala.
3. The fiscal crisis, which assumed unprecedented proportions during the late 1990s, had affected the development of infrastructure and all development and social welfare programmes and paralysed the administration.
4. The state also experienced acute power shortage during 1996 and 1997; the shortage has continued since.

5. The investment in medium- and large-scale industries was very low. There has been an outflow of capital and industrialists to other states due to unfavourable investment climate.
6. There has been a decline in the credit deposit ratio (CDR) indicating a fall in the rate of investment. The CDR fell from 59 per cent in 1991 to 41 per cent in 2000.
7. Due to the lack of professional educational institutions in the state, there has been a continuous outflow of students to other states resulting in large flow of money to other states.
8. Due to the economic recession, there has been an increase in the unemployment rates during the second half of the 1990s.⁴ According to a National Sample Survey Organisation (NSSO) survey, Kerala had the highest rate of rural unemployment and the second highest rate of urban unemployment among the states in India during 1999–2000. According to one survey, rural poverty in Kerala was estimated at 36 per cent in 1998.⁵

The structural changes that have occurred in the economy indicate a decline in the primary and secondary sectors and an increase in the tertiary sector (Table 2.3). Currently the share of the tertiary sector in the state income was 55 per cent and the pattern of structural change that has been occurring in the economy suggests an increasing importance of the tertiary sector. A disturbing structural change that occurred in Kerala was the weakening of the urbanisation process. During the 1990s, there has been a substantial fall in urbanisation. The percentage of urban population fell from 26.39 in 1991 to 25.97 in 2001 (Table 2.4). The share of industries to the state income also remained stagnant during 1990s.⁶

Table 2.3
Distribution of Net Domestic Product of Kerala

<i>Year</i>	<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>	<i>Total</i>
1980–81				
(1980–81 prices)	39.23	24.37	36.40	100.00
1993–94				
(1980–81 prices)	32.26	25.82	41.92	100.00
1993–94				
(1993–94 prices)	32.23	20.32	47.45	100.00
2000–2001				
(1993–94 prices)	25.30	19.50	55.20	100.00

Sources: State Planning Board, 2003; Department of Economics and Statistics, 2001.

Table 2.4
Trends in Urbanisation

<i>Census year</i>	<i>Total urban population (in lakh)</i>	<i>Percentage of urban population</i>	<i>Decadal growth (percentage)</i>
1951	18.26	13.48	52.72
1961	25.54	15.11	39.89
1971	34.66	16.24	35.72
1981	47.71	18.74	37.64
1991	76.80	26.39	60.97
2001	82.67	25.97	7.64

Source: Census of India, 2001.

We may also examine the changes in the structure of employment during the 1990s based on NSSO data. A change in the structure of rural employment during the 1990s shows that there has been a decline in the share of primary workers and an increase in the share of secondary and tertiary workers. In urban areas, one can notice a steep fall in primary employment and an increase in the share of secondary and tertiary activities. The tertiary sector accounts for 59 per cent of the total employment in urban areas (Table 2.5). A classification of workers into self-employed, regular employed, and casual labour will also give an idea of the structural change that has been occurring in employment. In rural areas, self-employment and casual employment account for 43 per cent each and regular employment, 14 per cent. On the other hand, in urban areas, regular employment accounts for 29 per cent (Table 2.6). In spite of the development for four-and-a-half decades, the economy has not succeeded in generating much regular employment opportunities. The labour market in Kerala is still characterised by a large share of self-employment and casual employment.

Table 2.5
Sector-wise Percentage Distribution of Workers in Kerala (NSSO)
[Usual Status (US), Principal Status (PS) + Subsidiary Status (SS)]

<i>Sector</i>	<i>1993-94</i>		<i>1999-2000</i>	
	<i>Rural</i>	<i>Urban</i>	<i>Rural</i>	<i>Urban</i>
Primary	57.9	25.8	50.0	9.8
Secondary	18.8	27.4	22.2	31.4
Tertiary	23.3	46.8	28.0	58.8
Total	100.0	100.0	100.0	100.0

Sources: *Sarvekshana*, 1996; National Sample Survey Organisation, 2002.

Table 2.6
Employment-wise Percentage Distribution of Workers in Kerala
(US, PS + SS)

	<i>Self-employed</i>	<i>Regular employed</i>	<i>Casual employed</i>	<i>Total</i>
1993-94				
Rural	45.4	11.5	43.1	100.0
Urban	39.8	26.8	33.4	100.0
1999-2000				
Rural	42.9	13.7	43.4	100.0
Urban	41.3	29.1	29.6	100.0

Sources: Sarvekshana, 1996; National Sample Survey Organisation, 2002.

The above information may be analysed as follows. In spite of the economic development for three-and-a-half decades, Kerala remained a backward economy till the beginning of the 1990s. Though the economy registered a moderate growth during the first half, the severe recession during the second half again reversed the economy. By the beginning of the millennium, the economy remained backward with underdeveloped productive sectors, inadequate infrastructure, slow structural transformation, and high incidence of poverty and unemployment.

PLAN STRATEGIES AND ECONOMIC POLICIES

Plan Strategy

The Communist Party of India, which came to power in Kerala after the formation of the state in 1956, aimed all its efforts at destroying capitalists and the capitalist system. The capitalist was considered a class enemy to be destroyed. The communists believed in militancy of labour and the rule of labour class. Due to the continuous propaganda against capitalists, a large section of the political leaders, trade union leaders, bureaucrats, and workers in private and public establishments began to believe that private investment is a bad thing for the society. Due to this approach, even a self-employed person investing a small amount of money to earn a living was considered a capitalist.

The reflection of this political ideology can be seen in the Plan strategies and economic policies pursued in Kerala. During the first five Five-Year Plans (1951-79), the broad Plan objectives were to increase per capita income to that of the national level, to attain self-reliance in food

by increasing rice production, to terminate the tenancy system, to create employment opportunities for solving the unemployment problem, to reduce regional disparities, and to uplift the vulnerable sections of society, especially Scheduled Castes and Tribes (State Planning Board, 1978). The major emphases of the Plan strategy thus were promotion of social welfare, termination of tenancy, reduction of regional disparities, etc. The annual average plan expenditure during the 1960s, the 1970s and the 1980s was very small (Table 2.7). It is believed that a backward and poor economy like Kerala can achieve rapid growth and development through the investment of meagre resources of the state in the form of Plan investment. This type of a strategy was formulated during the 1950s and the successive governments—especially the non-communist governments—also followed the same strategy.

Table 2.7
Expenditure on Five Year Plans in Kerala

<i>Plan</i>	<i>Expenditure (Rs crore)</i>	<i>Average Annual Plan Expenditure (Rs crore)</i>
First Plan (1951–56)	25.9	5.2
Second Plan (1956–61)	80.2	16.0
Third Plan (1961–66)	182.3	36.5
Annual Plan (1966–69)	144.4	48.1
Fourth Plan (1969–74)	345.8	69.2
Fifth Plan (1974–78)	498.6	124.7
Annual Plan (1978–80)	439.5	219.8
Sixth Plan (1980–85)	1,801.6	360.3
Seventh Plan (1985–1990)	2,546.9	509.4
Annual Plan (1990–91 to 1991–92)	1,425.1	712.6
Eight Plan (1992–97)	7,373.9	1,474.8

Source: Department of Economics and Statistics, 2001.

In contrast to the earlier Plans, the Sixth Plan gave importance to the commodity producing sectors, such as agriculture and industry. The Seventh Plan emphasised social welfare, employment generation, poverty alleviation and development of backward regions. The Eighth Plan strategy was for quality improvement and standard upgradation of sectors like education, health, roads, irrigation, and transport and for poverty alleviation measures. For the first time, the Eighth Plan gave importance to resource mobilisation for development through private and other institutional agencies rather than through the state budget.

Due to the strategy of expansion of the public sector, a number of public sector undertakings were started during the 1960s, the 1970s and the 1980s. However, the majority of the undertakings have been incurring sustained and heavy losses continuously and are on the verge of liquidation. The strategy of expansion of public sector undertakings with public funds has resulted in a failure in Kerala's context. As of March 2002, the total number of state-level public enterprises in Kerala was 112. The number of enterprises earning profits was 36, accounting for 32 per cent of the total enterprises. It is reported that five public sector units are under liquidation and another 11 are inactive. The rest are incurring sustained and heavy losses. The total accumulated loss of 58 enterprises is estimated at Rs 3,510 crore as of March 2002 (Bureau of Public Enterprises, 2003).

Economic Policies

Since its formation in 1956, the state pursued a highly market intervention type of policy. The policy instruments, which were widely used, were quantity type instruments such as controls, regulations and restrictions that normally distort the functioning of the market mechanism. Expansion of the public sector through public investment was also an important element of the economic policy. Infrastructure sectors like power, water supply, irrigation, and roads were under state control and no private investor was allowed to invest in these. The state undertook the responsibility of generation and distribution of electricity and the power sector was treated as a state monopoly. Sole dependence on hydroelectric power was another feature of the policy. Due to this policy, the government totally blocked all private efforts for development of power and other forms of energy.

The policies followed for industrial development included starting public sector units and industrial cooperatives, reviving sick units through cooperatives, industrial licensing, giving subsidies, introducing controls and providing institutional finance. In order to revive traditional industries such as coir, cashew, handloom, *beedi* and other handicrafts, the government emphasised giving subsidies, starting industrial cooperatives, and imposing controls on mechanisation and on transport of raw materials. In the coir industry, a number of controls were imposed on the transport of raw materials and mechanisation of coir units. In cashew, restrictions were imposed on small-scale cashew processing in households. Minimum wage requirements were imposed in all the industries.

The educational policy was to promote education through public ownership or providing state aid to schools, arts and science colleges and technical institutions. Though there has been a hike in the demand for professional courses, stringent government policies do not allow private investment in this sector. Allowing the private sector to start professional institutions like medical colleges, engineering colleges, institutes of science and technology, and institutes of management is not encouraged.

The policies adopted for agricultural development included starting a department of agriculture, establishing an agricultural university, research stations, credit agencies and expanding irrigation through major projects. A number of institutions like a sub-office of the agricultural department in each panchayat, research institutions, agricultural universities and a host of others were established, involving huge establishment expenditure to help farmers. However, whether the farmers were benefiting from such big bureaucratic establishments or irrigation projects was not monitored. A huge amount of money was spent on major and medium irrigation projects without considering the suitability, financial and technical feasibility of the projects, and resource availability for executing the projects.

There was substantial change in the economic policies at the national level with the implementation of the Structural Adjustment Reforms (SAR) since 1991. The policy reforms aimed at macro-economic stabilisation and restoration of growth momentum in the economy. A three-pronged approach was followed to achieve stabilisation, restructuring and globalisation of the Indian economy. Stabilisation policies intended to balance aggregate demand and supply by reducing the mounting budget deficits of the central government. Restructuring was aimed at making Indian industry internationally competitive through industrial and foreign trade policies. Globalisation was to be achieved through reduction in custom tariffs, allowing free flow of foreign capital, opening up of the service sector to foreign capital, devaluation of the Indian rupee and partial and full convertibility of the Indian rupee. Major changes have since been announced with respect to fiscal, monetary, trade, industrial, agricultural and foreign investment policies. The economic rationale behind the policy reforms is that strengthening market forces and allowing the market to function freely is more appropriate than interfering with the market mechanism.

Following the implementation of the SAR of 1991, some attempts were made by the state government to promote private investment in industry, electricity generation, tourism, etc., during the first half of the 1990s. A new industrial policy was also formulated, which emphasised

speedy issue of licenses for starting industries, tax and duty concessions, provision of industrial infrastructure facilities and special incentives for attracting investment from non-resident Indians. No other major policy changes were made either to dismantle the big bureaucratic structures or change the state intervention approach. But there was a reversal of these policies during the second half of the 1990s when the Left Democratic Front (LDF) government ruled the state. They took the position that the economic reforms implemented at the national level had created much harm to the Kerala economy. They argued strongly for changing the reforms implemented at the national level.

From the above, it is clear that the successive governments in Kerala followed policies by which they discouraged promotion of private investment, technological change and the creation of a favourable socio-political climate for rapid investment and development. These policies created serious problems like low private investment, outflows of capital entrepreneurs and students to other states, infrastructural backwardness, technological backwardness, and acute fiscal crisis.

CONSEQUENCES OF THE PLAN STRATEGY AND ECONOMIC POLICIES

Outflows of Capital, Entrepreneurs and Students

The major consequences of the economic policies have been low private investment in productive and service sectors and a continuous outflow of capital, entrepreneurs and students to other states. The magnitude of these outflows increased during the 1980s and the 1990s. Though there has been a substantial increase in the deposits of banks due to the receipt of remittances from non-resident Keralites, the money is not borrowed and invested in Kerala. The banks transfer the money to their branches in other states for issuing loans. The basic problem is that Keralites are not willing to borrow money from the banks and invest in productive or service activities in the state. Due to this, the CDR, which indicates the rate of utilisation of the bank deposits, has registered a continuous decline during the 1990s. The CDR fell from 59 per cent in 1991 to 41 per cent in 2000 (Table 2.8). The unfavourable climate created by the political ideology discouraging private investment, the activities of the political parties, the militancy of trade unions, and the resistance to modernisation and technological change have also contributed to the low private investment and capital outflows to other states.

Table 2.8
Credit Deposit Ratio (CDR) of Commercial Banks in Kerala

<i>Ending March</i>	<i>Total deposits in banks (Rs crore)</i>	<i>Total advance (Rs crore)</i>	<i>CDR</i>
1991	7,935	4,715	59.43
1995	17,694	7,842	44.32
1999	31,532	13,577	43.06
2002 (September)	54,585	23,693	43.41

Source: State Planning Board, 2003.

During the 1970s and the 1980s, some of the traditional industries such as coir, cashew and *beedi* had been shifted to other neighbouring states. Studies conducted during the 1980s suggest that due to labour disturbances and high wage cost, the Keralite entrepreneurs preferred to start small-scale industrial units in Tamil Nadu and Karnataka. During the 1990s, a number of industrial units and factories, which started in Kerala, were shifted to other states. Thus, Kerala has been witnessing outflows of capital, entrepreneurs and industries to other states.

The higher education policy pursued by the successive governments has involved promoting arts and science colleges through providing teaching grants from public funds, starting professional colleges in the public sector, and prohibiting the establishment of professional colleges in medicine, engineering, technology management, and applied sciences in private sector. As the state has only a few professional colleges in medicine and engineering, a large number of students have been forced to seek admission in private professional colleges in other states by paying huge amounts as capitation and tuition fees. During the 1990s, there has been substantial outflow of Keralite students to other states, especially Tamil Nadu and Karnataka. To cater to the large demand of students from Kerala, these states started a number of professional colleges during the 1990s. According to one report, the number of students who went to other states during the year 2000 was about 25,000 and the amount flowing out was Rs 3,000 crore.

Infrastructural Crisis

Public investment through plans and treating infrastructural items as state monopoly are the main elements of the policy pursued in the state for the development of infrastructure like roads, inland water transport, electricity, drinking water supply, sanitation, urban infrastructure and

irrigation. Due to this policy, the availability of public funds is the basic factor, which determines the construction and maintenance of the items. Though there is scope for private investment, no attempts were made to change the policy and utilise the private investment for the development of infrastructure till the end of the 1990s. As the state has been facing fiscal crisis from the early 1980s, the development of infrastructure began to stagnate since then. Construction of new infrastructure items was stopped and due to lack of timely maintenance, many of the infrastructure items became unusable. We list below the major problems on the infrastructural front:

1. Kerala has been facing electricity shortage since 1983. The shortage assumed serious proportions during the 1990s, especially during 1996 and 1997. During 1996, power cuts for certain categories of industrial consumers increased to between 50 per cent and 75 per cent. In 1997, power cuts of industrial consumers were enhanced to 100 per cent. Though there was some improvement in the power situation during the late 1990s, Kerala still faces shortage of power.
2. Due to lack of adequate roads and inland transport facilities, Kerala is facing acute road and inland water transport problems. Most of the important roads connecting district headquarters with small towns and interior places in all the districts have remained undeveloped during the last three decades, causing acute transport problems. In all the cities and major towns in Kerala, the most important problem is road congestion, resulting in frequent traffic blocks.
3. Lack of availability of drinking water is a major problem faced in the cities, towns and grama panchayats in the state. Lack of facilities for disposing waste water is also emerging as a serious environmental and health problem in most cities and towns. Lack of funds and poor administration are cited as the major reasons for this.
4. All the cities and towns in Kerala are facing acute urban infrastructural shortages like lack of roads, urban transport, water supply, sanitation, waste disposal, electricity shortages, public toilets, etc.
5. Though a number of major and minor irrigation projects were constructed in Kerala, a major share of the canals and water distribution system remain unusable. Lack of periodical maintenance, machinery, staff and good administration are cited as the reasons for this. Construction work of some major irrigation projects has been going on for decades without any hope of its completion in the near future.

Fiscal Crisis

The development strategy followed in Kerala has been one of state-sponsored and state-funded development. The state undertook the responsibility of the development of almost all items of infrastructure and the development of educational institutions through public fund support. It started a number of public health institutions and public sector undertakings and spent considerable amount of money for promotion of tourism, housing, etc. A number of social security and welfare schemes were started for providing financial support for different categories of people such as workers and old people. Without considering the resource position, more and more public expenditure schemes involving huge initial and recurring financial expenditure were undertaken. This has resulted in the creation of big bureaucratic structures, the appointment of a large number of civil servants, and huge present and future financial commitments.

Due to this strategy, the state government began to face financial crisis since the early 1980s. The financial crisis assumed serious proportions during the 1990s, especially the second half. The fiscal and revenue deficit registered a continuous increase during the second half (Table 2.9).

Table 2.9
Finances of the Government of Kerala

<i>Year</i>	<i>Revenue deficit (Rs crore)</i>	<i>Gross fiscal deficit (Rs crore)</i>	<i>Debt of the state (Rs crore)</i>
1990-91	422.04	798.57	4,716.79
1991-92	364.35	803.45	5,466.56
1992-93	337.44	732.02	6,297.13
1993-94	371.60	935.45	7,198.67
1994-95	399.88	1,108.65	8,820.87
1995-96	402.82	1,302.66	10,113.54
1996-97	643.03	1,542.48	11,420.91
1997-98	1,122.90	2,413.85	12,868.14
1998-99	2,029.96	3,012.20	15,700.28
1999-2000	3,624.21	4,534.56	20,176.00
2000-01	3,147.06	3,877.80	23,918.98
2001-02	2,605.64	3,269.40	26,950.57

Source: State Planning Board, 2003.

During the second half of the 1990s, the expenditure on interests, pension and salaries more than doubled (Table 2.10). During 2000-01, the

expenditure on interest, pension and salaries accounted for 73 per cent of the total revenue expenditure of the state government. According to the white paper, even for meeting the non-Plan expenditure, the revenue gap is Rs 2,045 crore in 2000–01. The white paper on state finances has estimated the accumulated liabilities such as dues to cooperative banks, contractors, and medical suppliers and other liabilities at Rs 3,477 crore in June 2001. It is pointed out that due to acute shortage of funds, the government is not in a position to pay the dues in the near future. The public debt of the government also increased to Rs 26,950 crore in March 2002.

Table 2.10
Interest, Pension and Salaries (Rs crore)

Year	Interest	Pension	Salaries	Growth Rate (%)		
				Interest	Pension	Salaries
1990–91	340.64	293.14	1,682.65	–	–	–
1991–92	483.42	338.96	1,383.59	41.92	15.63	–17.77
1992–93	542.51	371.87	1,419.46	12.22	9.71	2.59
1993–94	687.16	464.72	1,836.13	26.66	24.97	29.35
1994–95	819.67	565.45	2,194.25	19.28	21.68	19.50
1995–96	924.16	716.85	2,230.40	12.75	26.78	1.65
1996–97	1,103.41	753.67	2,616.66	19.40	5.14	17.32
1997–98	1,286.09	913.02	2,803.26	16.56	21.14	7.13
1998–99	1,446.26	1,154.32	3,254.68	12.45	26.43	16.10
1999–2000	1,952.27	1,808.29	4,502.86	34.99	56.65	38.35
2000–01	2,257.60	1,929.48	4,491.61	15.64	6.70	–0.25

Source: State Planning Board, 2003.

The unprecedented fiscal crisis has emerged as a development crisis due to the following reasons:

1. The acute shortage of funds has affected the implementation of the ongoing projects and maintenance of infrastructural items such as roads, inland water transport, water supply, waste disposal, urban infrastructure, electricity generation and distribution, irrigation, etc.
2. The low spending has resulted in the deterioration of public health services, education and other social welfare schemes.
3. The fiscal crisis has forced the government to cut Plan expenditure drastically.

4. The shortage of funds has delayed a number of pension schemes meant for agricultural workers, coir workers, aged people, unemployed persons, etc.
5. The fiscal crisis has paralysed the administration as money has not been available for paying telephone charges, purchasing fuel for vehicles, paying rent for office buildings, purchasing postage stamps, paying travelling allowance to officers, etc.

ECONOMIC REFORMS OF THE UNITED DEMOCRATIC FRONT GOVERNMENT

The UDF government, which assumed power in May 2001 in the context of acute fiscal crisis and economic recession, has drastically changed the development strategies and economic policies of the state. In this section, we examine the economic reforms implemented by the UDF government during the first two years of its tenure. The salient features of the economic reforms are the following:

1. The economic reforms implemented by the UDF government had the characteristics of the SAR implemented by the central government. The focus of the reforms was to revive the market forces by using price variables as policy instruments. Promotion of private investment and creation of a conducive atmosphere for investment, technological change and institutional change were the major objectives.
2. Though the reforms had the characteristics of structural adjustment, they also retained many aspects of the policies pursued in Kerala with respect to public sector undertakings, public health and education, and social welfare activities for the weaker sections.
3. In order to promote investment and create favourable conditions for investment, new policies were formulated for industries, information technology, labour, urban development, education, etc.
4. The reforms aimed at improving the financial situation of the state government through a number of measures to increase revenue and reduce expenditure.
5. Private investment was allowed in the professional educational sector for starting educational institutions in medicine, engineering, technology, management, etc.

In the following section, we examine the major economic reforms implemented by the UDF government.

Industrial Policy

In the context of low private investment, fall in CDR, capital outflows, and migration of entrepreneurs to other states, the main focus of the industrial policy was promoting private investment and achieving a higher and sustained industrial growth rate. The major objectives of the 2001 industrial policy are creation and maintenance of an investment-friendly climate for the promotion of domestic and foreign investment, elimination of all restrictive labour practices, coordination of industry with the educational system, special emphasis for sunrise sectors like information technology, biotechnology, food and agro processing and infrastructure. The other objectives are empowerment of traditional sectors to face global challenges by appropriate technology, productivity improvement, ensuring cost-effectiveness and accountability of public sector enterprises, special legal dispensation enabling a more liberalised environment in industrial and exporting zones, filling up gaps in infrastructure on top priority by attracting private investment and making single window clearance fully operational.

With the objective of making Kerala a leading destination of IT, an IT policy was formulated. It aimed at creating a favourable environment for accelerated growth of the industry, creating large-scale direct and indirect employment opportunities to attain a minimum growth of 100 per cent every year, attracting foreign investment, developing Kochi as an international IT centre, expanding the technopark as a leading software centre, and so forth.

To attract domestic and foreign investment, a Global Investors Meet was organised in Kochi in January 2003. The objective was to mobilise maximum investment from the private and public sector—both domestic and foreign—in industry, IT, infrastructure, tourism and other sectors. In the meet, the central government announced an investment of Rs 10,000 crore in central public sector undertakings in the coming years. The private investors—both domestic and foreign—agreed to make an investment of about Rs 16,000 crore in tourism, health, education, transport, IT, ports and other sectors. A notable achievement of the meet was the enthusiasm shown by Keralites and non-resident Keralites to invest in Kerala. Of the total amount promised for investment, the share of Keralites and non-resident Keralites was 41 per cent. The meet has succeeded in attracting industrial investment to Kerala. The reforms implemented in the industrial sector during the two years 2001 and 2002 have helped promote private investment and created a better industrial climate in Kerala.

Labour Policy

A labour policy was announced with the major objective of removing all restrictive labour practices and creating a conducive atmosphere for the promotion of public and private investment and rapid generation of employment opportunities. The policy banned all restrictive labour practices including intimidation, *gherao*, harassment of managers and their families and extortion. The management is given full freedom to select workers of its choice. In order to prevent the occurrence of disruptive strikes and lockouts, the government will declare vital industries and establishments as public utilities under the Industries Disputes Act. The government, through legislation, has banned all unhealthy and militant labour practices of headload workers.

An examination of the labour policy statement shows that the main emphasis is to remove restrictive labour practices of all kinds for promoting private investment and generation of employment. A notable aspect is that all militant labour practices within a factory or workplace are treated as criminal offences. Radical and strong steps are taken to curb unhealthy militant labour practices of headload workers with regard to wage fixation, extortion of money without doing work, denying the right of the employer to select workers of his choice through forceful means, etc. Due to the new labour policy, the state has succeeded in attracting more investment into the secondary and tertiary sectors. Measures to curb restrictive labour practices of headload workers have promoted the smooth flow of goods.

Educational Policy

The policy followed by the successive governments in Kerala has been to prohibit the starting of self-financing professional educational institutions in medicine, engineering, management, technology, etc. Consequently, there have been large-scale outflows of Keralite students to other states to join professional courses. The UDF government has announced a major change in the policy to promote professional education by allowing private investment. All those who can provide infrastructure and other facilities as per the norms of the central government for starting professional colleges were given no objection certificates by the state government. As a result of this policy, 29 engineering colleges, 11 computer studies institutions, five management institutions and four medical colleges were started in the self-financing category in the private sector during the academic year 2002–03. Besides providing new opportunities for professional education,

this investment also generated a lot of direct and indirect employment opportunities in the state. It also curbed the outflow of students to other states substantially.

Fiscal Reforms

To face the unprecedented fiscal crisis, the government published a white paper about the state of finances and implemented a number of drastic measures to tide over the crisis. Steps were taken to bring down the fiscal deficit, to regulate the revenue deficit, to limit the increase in interest payments, wages and salaries, and to eliminate subsidies. As establishment expenditure is the major item of expenditure, the policy aimed at reducing expenditure on the item. The measures implemented to reduce excess staff, reduce the number of higher-level posts, effect a 50 per cent reduction in the salary of the surplus-protected teachers, introduce contributory pension for new entrants in the service, provide only basic pay for new recruits for two years, and reduce pension commutation and leave surrender benefits have helped reduce salary-related expenditure.

In the context of acute fiscal crisis, the LDF government approached the Asian Development Bank to obtain a loan for implementing reforms in fiscal sector, public sector enterprises and the power sector. The UDF government has pursued the loan for modernising government programmes and fiscal reforms and has received the first instalment of Rs 601 crore in December 2002. The loan was utilised for implementing reforms in public finances and financial management, enhancing the power sector, improving core government functions, improving the developmental activities of local self-government, reducing poverty, and implement minimum needs programme and state-level public enterprises.

The fiscal reforms implemented during the first two years of the UDF's tenure have helped the government to tide over its fiscal crisis to a great extent. Due to improvement in state finances, the government has spent more money on development of infrastructure, welfare schemes, and Plan activities. The annual plan outlay was also enhanced to Rs 4,350 crore for the financial year 2003–04. There was much improvement in the treasury transactions, especially payment of cheques and bills of the government.

CONCLUSION

The above analysis may be concluded with the following observations. In spite of the economic development for the last four-and-a-half decades,

Kerala has remained a backward economy with underdeveloped productive sectors, an employment structure characterised by casual and self-employment, low levels of technology, inadequate infrastructure, slow pace of urbanisation and structural transformation, and high incidence of poverty and unemployment. The development strategy has been one of accelerated growth through meagre plan investment and expansion of the public sector. Though the state had only meagre resources, it undertook the responsibility of constructing and maintaining all categories of economic and social infrastructure. The economic policies pursued emphasised quantitative policy instruments, followed market-hostile policies and totally ignored the role of private investment in the promotion of economic growth. The development strategies and policies have resulted in low rate of private investment and continuous outflows of capital, entrepreneurs, industries, skilled labour and students of professional courses to other states. Due to shortage of funds and poor management, almost all items of infrastructure remained backward with chronic shortages. Though the SAR were implemented by the central government since 1991, the state government did not make many changes in policy in line with the national policy during the 1990s. The UDF government, which assumed power in 2001, drastically changed the development strategy and economic policies. Its economic reforms created more favourable conditions for promotion of private investment, technological progress, growth of output, improvement in state finances and institutional changes required for higher growth compared to the earlier period.

Table 2A
Demographic Indicators

<i>Indicators</i>	<i>Year</i>	<i>Male</i>	<i>Female</i>	<i>Persons</i>
Birth rate	1981	–	–	25.6
	1991	–	–	19.8
	2001	–	–	16.0
Death rate	1981	–	–	6.6
	1991	–	–	5.8
	1998	–	–	6.4
Infant mortality rate	1981	–	–	37.0
	1991	–	–	17.0
	1998	–	–	15.6
Life expectancy at birth	1980–82	66.30	70.70	–
	1990–91	69.00	72.00	–
	2001–02	71.67	75.00	–
Effective literacy rate	1981	84.56	73.36	78.85
	1991	93.62	86.17	89.81
	2001	94.20	87.86	90.92

Source: State Planning Board, 2003.

Table 2B
Total Migrants and Return Migrants of Kerala (1998)

	<i>Number (in lakh)</i>	<i>Migration rate (number per 100 households)</i>
Emigrants	13.62	21.4
Out-migrants	6.92	10.9
A. Total migrants	20.54	32.3
Return emigrants	7.39	11.6
Return out-migrants	9.59	15.1
B. Total return migrants	16.98	26.7
Total (A+B)	37.52	59.0

Source: Zachariah, et al., 1999.

Table 2C
Estimated Worker Remittances to Kerala (Rs crore)

<i>Year</i>	<i>All countries</i>	<i>Net State Domestic Product (NSDP)</i>	<i>Total remittances as a percentage of NSDP</i>
1998	12,110	51,060	23.72
1999	14,143	56,926	24.84
2000	15,192	63,094	24.08

Source: Zachariah et al., 2002.

Table 2D
Unemployment Rates in Kerala* (NSSO) (%)

<i>Year</i>	<i>Rural</i>			<i>Urban</i>		
	<i>Male</i>	<i>Female</i>	<i>Persons</i>	<i>Male</i>	<i>Female</i>	<i>Persons</i>
1993–94	13.1	19.0	14.7	14.1	27.8	17.7
1999–2000	20.0	26.1	21.7	15.5	28.2	19.1

Source: National Sample Survey Organisation, 2002.

Note: *Current Daily Status Definition.

Table 2E
Share of Industry in Net State Domestic Product (at 1993–94 prices)

<i>Year</i>	<i>Industry (Rs crore)</i>	<i>Net State Domestic Product (Rs crore)</i>	<i>Share of industry in Net State Domestic Product (%)</i>
1993–94	2,698	23,851	11.31
1997–98	3,290	28,633	11.49
2000–01	3,893	34,451	11.30

Source: State Planning Board, 2003.

1. See Appendix Table 2A.
2. See Appendix Table 2B.
3. See Appendix Table 2C.
4. See Appendix Table 2D.
5. According to a survey conducted by the Government of Kerala, 17.23 lakh rural families are below the poverty line, with the percentage of rural poverty estimated at 36 per cent (State Planning Board, 2003).
6. See Appendix Table 2E.

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II

DEMOGRAPHY, EMPLOYMENT
AND EMIGRATION

DEMOGRAPHIC CHANGE IN KERALA
IN THE 1990s AND BEYOND
S. Irudaya Rajan and Sabu Aliyar

3

INTRODUCTION

Kerala is situated on the south-western edge of the Indian peninsula. The state of Kerala was formed on 1 November 1956 as a result of the reorganisation of India's states on a linguistic basis. It takes its name from the word *kerum*, which means coconut in Malayalam. Kerala accounts for 1.3 per cent of India's land area but supports 3.1 per cent of the population. The population of Kerala was enumerated at 32 million in 2001, living in around 6.5 million households.

As per the 2001 census, Kerala has 14 districts and 63 *taluks*. As per the 1991 census, it has 151 development blocks, 131 census towns, 983 panchayats, and 1,384 villages. It also has 28.87 lakh people of belonging to the Scheduled Castes and 3.21 lakh to the Scheduled Tribes, and they constitute 3.92 per cent and 1.1 per cent of the total population respectively.

Kerala has the highest literacy rate in India. Even at the time of the formation of Kerala, nearly half the Keralites were literate. For the population aged seven years and above, the literacy in the 2001 census is 90.92 per cent as against 89.81 per cent in 1991. The male literacy rate is 94.2 per cent in 2001 in contrast to 93.62 per cent in 1991 and the female literacy rate is 87.86 per cent as against 86.17 per cent in 1991. The difference between male and female literacy was almost 20 points in 1961 but declined to 6 points in 2001. On the other hand, the male and female literacy rates for India are 75.85 and 54.16 per cent respectively in 2001. The gender gap is 22 per cent for India as against just 6 per cent for Kerala.

The 2001 census ranked Kerala as 19th (out of 32 states and Union Territories) with regard to female work participation rate. This is the same position that Kerala held in 1981. The male and female work participation rates were 47.8 and 15.9 respectively in 1991 and the current rates are 50.4 and 15.3 per cent as per the 2001 census. In fact, the work participation

rates for males and females in 2001 in Kerala are lower than the country as a whole (Gulati, et al., 1997).

The per capita income (per capita net national product at factor cost) is estimated as Rs 10,754 for 2001–02 (at 1993–94 prices) as against Rs 10,306 in 2000–01, registering an increase of 4 per cent during the last year. The net state domestic product at constant (1993–94) is estimated at Rs 36,079 crore in 2001–02 as against Rs 34,450 crore in 2000–01. At current prices, the state income is estimated at Rs 69,602 crore during 2001–02 as against Rs 63,094 crore during 2000–01, registering a growth rate of 10.3 per cent compared to 10.8 per cent during 2000–01. The calculation of state income does not include remittances arising out of migration. If remittances have to be included in the state income, it would have been more than 20 per cent than the present state domestic product (State Planning Board, 2003).

A glaring manifestation of the unemployment problem in Kerala is the large number of migrants. Firm figures are not available but according to our own earlier estimate, there were about 618,000 migrants in 1991 (Zachariah et al., 1994). The best estimate of the number of emigrants in the Kerala in the second half of 1998 was 1.36 million as per the latest study conducted at the Centre for Development Studies, Kerala (Zachariah, et al., 2003) and the current flow of remittances to Kerala is estimated at Rs 13,815 crore (Zachariah, et al., 2002; Zachariah, et al., 2002). The rate of net migration from Kerala stood at -0.16 per cent during the decadal period 1961–71; -0.22 per cent during 1971–81; -0.31 per cent during 1981–91; and 0.27 during 1991–2001 (Bhat and Irudaya Rajan, 1990; Irudaya Rajan, 2003; Irudaya Rajan and Zachariah, 1998).

POPULATION SIZE AND GROWTH

The population of India as of 1 March 2001 stood at 1027 million. The corresponding figure for Kerala was 32 million, of which 15.5 million were males and 16.4 million were females. Table 3.1 outlines various demographic features of Kerala versus India over the last 100 years. Table 3.2 provides the district-level scenario that has emerged from the just released 2001 census. Though India had a negative growth rate during 1911–21, Kerala never had that experience.

Kerala registered a growth rate of above 2 per cent during 1941–71 whereas the same pattern was true for India between 1961 and 1991. Until 1971, Kerala's growth rate was always higher than India's and only during

Table 3.1
Demographic Profile of Kerala, 1901–2001

Year	Population	Growth Rate		Sex Ratio (Female/Male)		Population Density		Net Migration Rate	
		India	Kerala	India	Kerala	India	Kerala	India	Kerala
1901	6,396,262	–	0.81	972	1,004	77	165	–	–
1911	7,147,673	0.56	1.11	964	1,008	82	184	0.03	0.03
1921	7,802,127	-0.03	0.88	955	1,011	81	201	0.04	0.04
1931	9,507,050	1.04	1.98	950	1,022	90	245	0.12	0.12
1941	11,031,541	1.33	1.49	945	1,027	103	284	-0.01	-0.01
1951	13,549,118	1.25	2.06	946	1,028	117	349	-0.11	-0.11
1961	16,903,715	1.96	2.21	941	1,022	142	435	-0.20	-0.20
1971	21,347,375	2.22	2.33	930	1,016	177	549	-0.16	-0.16
1981	25,453,680	2.20	1.76	934	1,032	216	655	-0.22	-0.22
1991	29,098,518	2.14	1.34	927	1,036	267	749	-0.31	-0.31
2001	31,838,619	1.93	0.91	933	1,058	324	819	-0.27	-0.27

Sources: Compiled from various censuses; Bhat and Irudaya Rajan, 1990; Irudaya Rajan and Zachariah, 1998; Zachariah, et al., 2003.

Table 3.2
District Profile of Kerala, 2001 Census

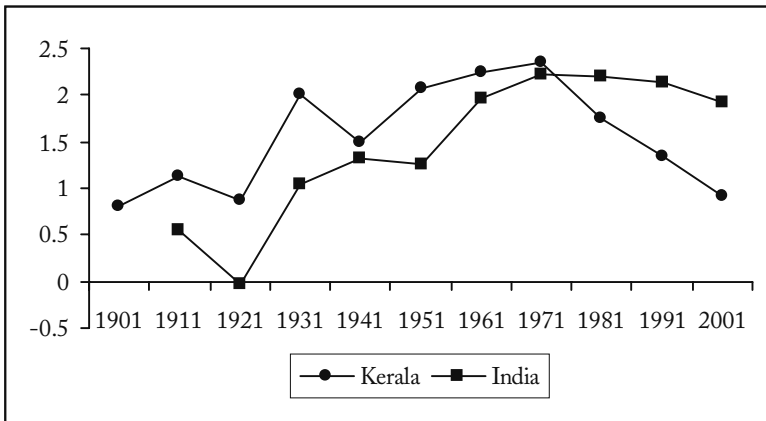
District	Growth Rate (1991-2001)		Sex Ratio		Human Density		Percent-age		Literacy (%)		WPR (%)	
	Population	Rate	Total	0-6	Density	Urban	Literacy (%)		WPR (%)			
							Male	Female	Male	Female		
Kasaragod	1,203,342	1.16	1,047	984	604	19.42	90.84	79.8	49.3	20.8		
Kannur	2,412,365	0.69	1,090	956	813	50.46	96.38	89.57	50.0	15.2		
Wayanad	786,627	1.57	1,000	954	369	3.76	90.28	80.80	55.7	22.8		
Kozhikode	2,878,498	0.94	1,058	966	1,228	38.25	96.30	88.86	48.8	8.1		
Malappuram	3,629,640	1.59	1,063	979	1,022	9.81	91.46	85.96	42.8	6.6		
Palakkad	2,617,072	0.94	1,068	963	584	13.62	89.73	79.31	52.2	21.1		
Thrissur	2,975,440	0.83	1,092	953	981	28.21	95.47	89.94	50.8	15.1		
Ernakulam	3,098,378	0.87	1,017	948	1,050	47.65	95.95	90.96	55.4	17.1		
Idukki	1,128,605	0.67	999	970	252	5.07	92.11	85.04	58.4	28.1		
Kottayam	1,952,901	0.65	1,025	957	884	15.35	97.41	94.45	52.4	13.9		
Alappuzha	2,105,349	0.51	1,079	962	1,489	29.36	96.42	91.14	49.7	20.2		
Pathanamthitta	1,231,577	0.36	1,094	968	467	10.03	96.62	93.71	47.6	13.2		
Kollam	2,584,118	0.71	1,070	961	1,038	18.03	94.63	88.60	48.5	16.7		
Thiruvananthapuram	3,234,707	0.93	1,058	955	1,476	33.78	92.68	86.26	51.5	14.4		
Kerala	31,838,619	0.9	1,058	963	819	25.97	94.20	87.86	50.4	15.3		

Source: All information is compiled from the Census of India, 2001.

Notes: Sex ratio is defined as the number of females per 1,000 males, WPR = Work Participation Rate.

1971–81 did India overtake Kerala in terms of growth rate. Over the 100 years, Kerala's population increased five times (from 6 million in 1901 to 32 million in 2001) whereas India's population could grow slightly more than three times (from 238 million in 1901 to 1027 million in 2001). However, the growth rate during the last decade works out to 0.91 per cent, the lowest after the formation of Kerala (Figure 3.1). Kerala has also registered the lowest growth rate during 1991–2001 among 35 states and Union Territories in India. The rate of net migration from Kerala stood at -0.16 per cent during the decadal period of 1961–71; -0.22 per cent during 1971–81; -0.31 per cent in the last decade 1981–91; and -0.27 during 1991–2001.

Figure 3.1 Population Growth Rate: Kerala and India, 1901–2001



Among the 14 districts of Kerala, half registered a growth rate higher than the state average. The lowest growth rate was observed in Pathanamthitta whereas the highest was registered in Malappuram. Overall, the northern districts of Kerala follow a higher growth pattern and southern districts follow the lower population growth rate (Table 3.2).

MORTALITY AND LIFE EXPECTANCY

Although a civil registration system has been in existence in Kerala for long, its performance has been highly unsatisfactory until recently. As a result, not much confidence can be placed on either the level or trend in vital rates implied by this source. Recent data published by the civil registration system in Kerala is of importance as it can provide district-level estimates

of fertility and mortality. However, a systematic attempt is not made either by demographers or by the government to produce district-level data on fertility and mortality on a regular basis using the civil registration system. In this context, we have to depend upon the Sample Registration System (SRS), as it offers data of more acceptable quality. According to the SRS, the crude death rate (CDR) in Kerala hovered around six during the last 10 years and the infant mortality rate (IMR) has marginally declined from 16 per 1,000 live births in 1991 to 11 per 1,000 in 2001 (Table 3.3).

Table 3.3
Fertility and Mortality Indicators for Kerala, 1991–2001

<i>Year</i>	<i>CBR</i>	<i>TFR</i>	<i>CDR</i>	<i>IMR</i>
1991	18.3	1.8	6.0	16
1992	17.7	1.7	6.3	17
1993	17.4	1.7	6.0	13
1994	17.4	1.7	6.0	16
1995	18.0	1.8	6.0	15
1996	18.0	1.8	6.2	14
1997	17.9	1.8	6.2	12
1998	18.3	NA	6.4	16
1999	18.0	NA	6.4	14
2000	17.9	NA	6.4	14
2001	17.2	NA	6.6	11

Source: Compiled from various issues of the Sample Registration System.

Notes: CBR refers to number of live births during the year divided by the population in the same year multiplied by 1,000; CDR refers to number of deaths during the year divided by the population in the same year multiplied by 1,000; IMR refers to infant mortality rate and defined as number of infant deaths during the year divided by number of live births during the year, multiplied by 1,000.

Over the last 10 years, the IMR has shown a lot of fluctuation. If we decompose the IMR into two components, the contribution of post neonatal mortality (28–365 days) is the lowest compared to the neo-natal mortality rate (0–28 days). Again, if we decompose the one-month mortality into two components such as 0–7 days and 7–28 days, it reveals an interesting scenario of the health situation in Kerala. For instance, in 1997 (Table 3.4), out of seven children that died in one month, six died in the first week of life. This is also true for peri-natal mortality (stillbirth plus one week mortality rate) and stillbirth rates. The current peri-natal mortality rate is 18 for Kerala whereas the stillbirth rate is 11. Both are extremely high in Kerala, given the level of IMR (Irudaya Rajan and

Table 3.4
Different Components of Infant Mortality Rate, 1991–2001

<i>Year</i>	<i>PMR</i>	<i>SBR</i>	<i>OWM</i>	<i>OWOM</i>	<i>NMR</i>	<i>PNMR</i>	<i>IMR</i>
1991	18.0	9.2	8.8	2.5	11.3	5.1	16
1992	18.9	10.1	8.8	2.1	10.9	5.8	17
1993	16.8	8.2	8.6	1.4	10.0	3.3	13
1994	20.5	9.8	10.7	1.9	12.6	3.2	16
1995	16.0	9.0	7.0	4.0	11.0	4.0	15
1996	17.0	10.0	7.0	4.0	11.0	3.0	14
1997	17.5	11.3	6.2	1.3	7.5	4.5	12
1998	NA	NA	NA	NA	NA	NA	16
1999	NA	NA	NA	NA	NA	NA	14
2000	NA	NA	NA	NA	NA	NA	14
2001	NA	NA	NA	NA	NA	NA	11

Source: Various issues of Sample Registration System and Bulletins.

Notes: PMR refers to peri-natal mortality rate and is defined as the number of stillbirths and infant deaths of less than seven days during the year, divided by the number of live births and stillbirths during the year, multiplied by 1,000; SBR refers to stillbirth rate and is defined as the number of stillbirths during the year, divided by number of live births and stillbirths during the year, multiplied by 1,000; OWM refers to one-week mortality (0–7 days) and is defined as the number of infant deaths of less than one week during the year divided by number of live births during the year, multiplied by 1,000; OWOM refers to one-week to one-month mortality (7–28 days) and is defined as the number of infant deaths of more than one week and less than one month during the year, divided by number of live births during the year, multiplied by 1,000; NMR refers to neo-natal mortality rate (0–28 days) and is defined as the number of infant deaths of less than a month during the year divided by the number of live births during the year, multiplied by 1,000; PNMR refers to post neo-natal mortality rate (28 days to 1 year) and is defined as the number of infant deaths of more than a month and less than a year during the year, divided by number of live births during the year, multiplied by 1,000.

Mohanachandran, 1998; 1999). The life expectancy at birth in Kerala is 68 years for males and 74 years for females with a gender gap of six years.

As long as the SRS does not provide district-level infant and child mortality estimates, we have to depend on the indirect estimates based on the 1991 census data (The data required for estimation is not available from the 2001 census.) According to the estimates, the IMR for Kerala was 42 per 1,000 live births: 45 for males and 41 for females. This is also true for child (under five years) mortality rates. The highest male IMR of 72 was reported for Wayanad district, followed by Idukki (65). On the

other hand, the highest female IMR was estimated for Idukki (60), followed by Thiruvananthapuram (40). Detailed data in this respect is presented in Table 3.5.

Table 3.5
Estimates of Infant and Child Mortality by District, 1991 Census

<i>District</i>	<i>Infant Mortality Rate</i>			<i>Child Mortality Rate</i>		
	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Kasaragod	34	32	36	49	50	48
Kannur	34	40	30	50	50	51
Wayanad	54	72	36	89	94	57
Kozhikode	37	39	35	61	67	54
Malappuram	35	33	37	58	57	58
Palakkad	31	34	29	55	52	57
Thrissur	29	30	27	47	48	46
Ernakulam	32	34	31	48	49	47
Idukki	57	65	60	74	74	74
Kottayam	28	34	27	52	58	48
Alappuzha	25	27	22	45	42	46
Pathanamthitta	27	26	30	39	29	52
Kollam	25	27	22	50	51	49
Thiruvananthapuram	38	36	40	51	54	50

Source: Registrar-General of India, 1997.

FERTILITY

Reliable data on fertility trends of Kerala is available only for the period since the introduction of the SRS. According to the SRS, the crude birth rate (CBR) declined by just one point during the last 10 years and there was almost no change in the total fertility rate (TFR). Kerala achieved the replacement level of fertility at the beginning of the 1990s. At this stage, many demographers in India and abroad thought that further decline was unlikely. Against their predictions, Kerala's TFR declined further to 1.7 by 1993 and has been hovering around that figure for the last five years (Table 3.6).

Birth rate varied considerably from region to region and from district to district. According to unofficial tabulations of the SRS data, in 1988, the birth rate varied from 14.8 in Alappuzha to 28.4 in Malappuram. The average birth rate for the period 1983–88 showed a variation from 17.7 in Alappuzha to 33.5 in Malappuram. While the birth rates in some

Table 3.6
Crude Birth Rate and Total Fertility by District, 2001 Census

<i>District</i>	<i>Crude Birth Rate</i>			<i>Total Fertility Rate</i>		
	1974–80	1984–90	1994–01	1974–80	1984–90	1994–01
Thiruvananthapuram	22.8	19.6	16.4	2.3	1.8	1.6
Kollam	23.3	18.5	16.2	2.7	1.8	1.6
Alappuzha	21.0	16.7	15.2	2.3	1.6	1.5
Pathanamthitta	NA	17.2	14.5	–	1.7	1.5
Kottayam	20.1	16.6	15.6	2.4	1.7	1.6
Idukki	26.7	19.8	17.0	2.9	1.8	1.6
Ernakulam	21.4	16.9	15.7	2.4	1.6	1.5
Thrissur	22.2	18.7	16.1	2.5	1.9	1.6
Palakkad	22.5	18.8	17.3	3.4	2.4	1.8
Malappuram	33.6	29.5	22.4	4.3	3.4	2.4
Kozhikode	26.3	20.5	17.4	3.0	2.0	1.7
Wayanad	31.4	23.4	19.5	3.8	2.3	2.0
Kannur	28.8	20.5	16.6	3.5	2.1	1.7
Kasaragod	NA	24.4	18.9	2.5	–	1.9
Kerala	25.0	20.3	17.1	2.9	2.0	1.7

Sources: Bhat, 1996; Guilmoto and Irudaya Rajan, 2002.

districts in south Kerala such as Alappuzha, Ernakulam, Kottayam and Pathanamthitta seemed to have definitely crossed the replacement level, the birth rate in some of the northern districts such as Malappuram and Kasaragod was reported to be near the all-India average. Such large inter-district variation in the birth rate in Kerala was confirmed by a more recent analysis by Bhat, who has estimated TFRs of all districts of Kerala using 1981 and 1991 censuses (Bhat, 1996). According to these estimates, the TFR varied from 1.6 in Ernakulam to 3.4 in Malappuram during 1984–90. In the beginning of 1990, only five districts (Palakkad, Malappuram, Wayanad, Kannur and Kasaragod) in Kerala have registered TFRs above the replacement level. The remaining districts had already achieved fertility below replacement level.

As per the latest estimates based on the 2001 census, Malappuram is the only district in Kerala where the TFR is above replacement level (Guilmoto and Irudaya Rajan, 2002). The lowest TFR of 1.5 is reported for many districts, including Alappuzha, Pathanamthitta and Ernakulam. More detailed spatial study on the fertility in Indian districts indicates that Alappuzha in Kerala is supposed to be forerunner of fertility decline even during the 1960s (Guilmoto and Irudaya Rajan, 2001).

HOUSEHOLD STRUCTURE AND AMENITIES

The 2001 census has just released data on household structure and household amenities. Kerala has 6.5 million occupied houses: 4.9 million in the rural areas and 1.6 million in the urban areas. As per the census definition of conditions of houses, in Kerala, 56 per cent are in good condition, 36 per cent are in livable condition, and about 8 per cent are in dilapidated condition. Out of 100 houses, 54 per cent have roofs made of tiles, followed by concrete buildings (30 per cent). The remaining houses are made of stone, brick, slate, plastic, mud, wood and other materials. Moreover, 10 per cent of the houses have one dwelling room and another 30 per cent have four and more living rooms. Interestingly, 93 per cent of the households live in their own houses. Wells are the major sources of drinking water (72 per cent) in Kerala, followed by taps (20 per cent). Only 62 per cent of the houses have attached bathroom facilities within the house. Firewood continues to be the major cooking fuel for most households (77 per cent) followed by liquefied petroleum gas (18 per cent). As of 2001, only 70 per cent of the households in Kerala use electricity as a source of lighting. According to the available assets in the houses, 40 per cent had television sets, 20 per cent had telephones, 19 per cent had bicycles, 10 per cent had two-wheelers, and only 4 per cent had cars.

The average household size in Kerala is 4.8 persons per household. Table 3.7 presents the household structure in Kerala. According to the 2001 census, 3 per cent of households are single member households and another 7 per cent are with just two members and only 27 per cent of households have more than six members in the households. This is also true for 7.1 million married couples in the households. About 90 per cent of the married couples in Kerala have independent sleeping rooms in their houses. However, 13 per cent of houses in Kerala are reported to be without any married couples, probably indicating the elderly (without spouse) living with children or living alone.

Table 3.7
Distribution of Households by Members in Kerala, 2001
(Number of members in the households)

Number	1	2	3	4	5	Over 6
%	2.8	6.9	13.1	29.3	21.1	26.8

Source: Calculated from the Census of 2001.

EMERGING DEMOGRAPHIC SCENARIO, 2001–51

We have projected Kerala's population for the next 50 years using the 2001 adjusted census figures and various assumptions for the trends in fertility, mortality and migration. Three projections are done. Mortality assumptions are the same for the three sets. At present Kerala's TFR is 1.7; we have examined the implications of three alternate courses of fertility trends. The first alternative is a continuation of the recent fertility decline. We assume that the TFR will decline further to about 1.4 during the next 10 years and remain at this low rate indefinitely (Projection I). As the second alternative, we assume that fertility will remain constant at a TFR of 1.7 for the next two decades and reduce to 1.5 by 2051 (Projection II). The third alternative is a declining fertility to a TFR of 1.7 as in Projection I, followed by an increase in fertility after the period 2011–16 (Projection III) (Table 3.8). In deciding on these fertility assumptions, we were governed mostly by the trend in fertility in Kerala in recent years, the social and economic progress that the state has been making, and the international experience in fertility decline. According to United Nations sources, there were nearly 40 countries with a TFR of less than 2.0 in the period 1990–95, including the larger countries such as China, the Russian Federation, the United Kingdom, Japan and Italy; nearly 10 of these 40 countries have a TFR of 1.5 or less.

Table 3.8
Expectation of Life at Birth Assumed in the Projections of Kerala

<i>Period</i>	<i>Expectation of life at birth</i>		<i>Total Fertility Rate</i>		
	<i>Males</i>	<i>Females</i>	<i>Projection I (Low)</i>	<i>Projection II (Medium)</i>	<i>Projection III (High)</i>
2001–06	75.2	81.20	1.5	1.7	1.7
2006–11	75.78	81.78	1.4	1.7	1.7
2011–16	76.29	82.29	1.4	1.7	1.8
2016–21	76.74	82.74	1.4	1.7	1.8
2021–26	77.15	83.15	1.4	1.7	1.9
2026–31	77.53	83.53	1.4	1.7	1.9
2031–36	77.89	83.89	1.4	1.7	2.0
2036–41	78.23	84.23	1.4	1.7	2.0
2041–46	78.55	84.55	1.4	1.7	2.0
2046–51	78.85	84.85	1.4	1.7	2.0

In all three projections, we have assumed that Kerala will continue to experience a moderate level of net out-migration. The assumed rate is -0.25 per cent, less than the observed rate of -0.27 per cent for the period 1991–2001 (Zachariah, et al., 2001a, 20001b). The assumed migration rate of -0.25 per cent is kept constant throughout the projection period. Much of the discussion in this section is based on Projection II. We have used the Component method of projections for Projection II and the PEOPLE software package for Projections I and III.

Population Stabilisation and Zero Population Growth

The current population of Kerala is 31.8 million and the decadal growth in population during 1991–2001 is estimated to be around 2.8 million. It is unlikely that future decades will see anything like the growth of past decades. Population growth in Kerala during 2001–51 and the projected growth according to the three alternate projections are shown in Table 3.9. This data indicates that Kerala's population growth has lost much of its momentum. Current indications are that the total population of the state is likely to exceed 37.0 million by 2051. Also, Kerala is likely to achieve zero population growth (ZPG) in 25–30 years. Moreover, it is possible that Kerala may have shorter periods of negative growth rates. Thus, the demographic situation of the state in the first half of the 21st century will be quite different from that of the previous half-century. The socio-economic impacts of population growth in the future will be vastly different than in the past; some of these aspects are examined in detail here.

Table 3.9
Population Projections for Kerala

<i>Year</i>	<i>Projection I (thousand)</i>	<i>Growth Rate (%)</i>	<i>Projection II (thousand)</i>	<i>Growth Rate (%)</i>	<i>Projection III (thousand)</i>	<i>Growth Rate (%)</i>
2001	31,838	–	31,838	–	31,838	–
2006	32,641	0.63	33,076	0.81	33,076	0.81
2011	33,343	0.43	34,202	0.67	34,202	0.67
2016	33,817	0.28	35,074	0.50	35,207	0.58
2021	33,995	0.11	35,633	0.32	35,888	0.38
2026	33,871	-0.07	35,913	0.16	36,398	0.28
2031	32,459	-0.24	35,965	0.03	36,678	0.15
2036	32,745	-0.43	35,778	-0.10	36,837	0.09
2041	31,727	-0.63	35,319	-0.26	36,750	-0.05
2046	30,390	-0.86	34,536	-0.45	36,369	-0.21
2051	28,760	-1.10	33,449	-0.64	35,717	-0.36

Educational Planning

We begin this analysis by considering the changes in the number and proportion of children in Kerala. These numbers are directly relevant for the state's educational planning. In this discussion, children are defined as persons under 15 years of age. The number of children in a population is mostly derived by the number of births and, to a lesser extent, by migration. As the birth rate has declined considerably (from about 40 per 1,000 in the 1950s to about 17 per 1,000 in late 1990s), dramatic declines in the number of children should be expected. However, part of the expected change in the number of children is cancelled out by the increase in the number of mothers and the decline in the death rate among children. Table 3.10 gives the number of children under 15 years of age according to the various censuses since the formation of Kerala (1 November 1956) and our projections up to 2051.

Table 3.10
Categorisation of Number of Children under 15 Years of Age

<i>Year</i>	<i>Children under 15 years (thousand)</i>	<i>Proportion of Children to Total Population (%)</i>	<i>Children aged 5–9 years (Primary School)</i>	<i>Children aged 10–14 years (Secondary School)</i>
1961	7,205	42.62	2,443	2,253
1971	8,595	40.26	2,876	2,864
1981	8,901	34.97	2,922	3,258
1991	8,617	29.64	2,847	3,108
2001	7,429	23.40	2,256	2,726
2011	7,230	21.10	2,343	2,402
2021	6,624	18.60	2,219	2,349
2031	5,875	16.10	1,896	2,012
2041	5,419	15.30	1,814	1,834
2051	4,921	14.70	1,638	1,729

Between 1961 and 1981, there was an increase of about 1.7 million children, but since then the number has been declining. By 2001, the number of children is almost closer to the figures for 1961. In 1961, four of 10 Keralites were children; this has come down to two in 10 in 2001.

Categorisation of the children by five-year age groups indicates that the decline will be the largest in the very young age group. The school age population will shrink considerably in the coming decades. Children in

the primary school ages (taken as 5–9 years for convenience) will decline from 2,847,000 in 1991 to 1,638,000 in 2051. A similar decline is also projected in the secondary school ages (10–14 years).

The implications of such a drastic decline in the school age population has been evident for quite some time in Kerala. A decline of 32 per cent in the school age population will necessitate a corresponding decline in the number of primary schools, classrooms, teachers, etc. Policies and programmes taking into consideration these major demographic shifts might take some time to be implemented, but adjustments are inevitable (Government of Kerala, 1994; Irudaya Rajan and Mishra, 1996, 1997a; James, 1995).

The uneconomic school is defined as one which does not satisfy the requirement of Paragraph I of Rule 22(4) of Kerala Education Rules, which require that the minimum strength per standard in Lower Primary or Upper Primary or Higher Secondary shall be 25 students. The recent economic review (2000) (State Planning Board, 2001) says there were 2,244 uneconomic schools in Kerala of which 993 were in the government sector and 1,251 in the private-aided sector. These schools will be closed in a phased manner.

Apart from schooling, the repercussion from the decline in the population of children will be felt in many other areas of economic activity, such as the children's clothing industry, toy manufacturing and healthcare services for children. Economic activities catering to children and pregnant women are bound to shrink and will require considerable adjustment in the coming years. One saving factor is that not all children make use of these services, and any increase in the proportion of children using such services would partly compensate for the decrease in the total number of children. The quality of life and care for children is likely to improve in the coming years.

Labour Force

As mentioned earlier, unemployment—especially among the educated—is one of the major economic and social problems of Kerala. A number of factors are involved in the emergence of unemployment as a very serious problem; rapid population growth since the 1950s is one of them. Efforts to find a solution to the unemployment problem are hampered by the demographic explosion in the state.

In 1961, there were only 7,640,000 persons in the working age group of 20–64 years in Kerala. This number more than doubled to about

15,660,000 in 1991. Our projections indicate that the number of persons in this working age group will increase further to about 22,071,000 by 2001 (a 41 per cent increase), and then decline (by 22 per cent) to about 17,313,000 by 2051. (It may be noted that most persons who will be older than 20 years of age in 2021 were already born before the 2001 census; therefore our projections of the working age population for 2021 are quite realistic.) Thus, the accentuation of the unemployment problem in the state is certainly partly due to demographic pressure. In spite of the very rapid decline in the birth rate in the state over the last two decades, the demographic pressure on the labour force will not disappear for quite some time. It is only after 2021 that we may expect a real decline in the number of persons in the working age group (Table 3.11).

Table 3.11
Working Age Population in Kerala, 1961–2051

Year	<i>Numbers</i>			
	<i>20–64 years</i>	<i>20–34 years</i>	<i>35–49 years</i>	<i>50–64 years</i>
1961	7,639,624	3,789,636	2,474,651	1,336,337
1971	9,568,105	4,586,988	3,234,650	1,746,467
1981	12,312,589	6,290,800	3,709,377	2,312,412
1991	15,660,910	7,878,650	4,871,010	2,911,250
2001	18,950,664	8,665,863	6,565,096	3,719,705
2011	22,905,308	8,078,800	8,459,581	6,366,927
2021	22,070,831	6,695,974	8,210,795	7,164,062
2031	21,524,558	6,504,858	7,045,439	7,974,261
2041	19,510,631	5,905,723	6,156,965	7,447,943
2051	17,313,001	5,075,630	6,075,687	6,161,684
Year	<i>Growth rate (%)</i>			
1961–71	2.25	1.89	2.68	2.45
1971–81	2.52	3.16	1.37	2.81
1981–91	2.41	2.25	2.72	2.30
1991–01	1.91	0.95	2.98	2.45
2001–11	1.90	-0.70	2.54	5.37
2011–21	-0.37	-1.88	-0.03	1.18
2021–31	-0.25	-0.29	-1.53	1.07
2031–41	-0.98	-0.97	-1.35	-0.68
2041–51	-1.20	-1.51	-0.13	-1.90

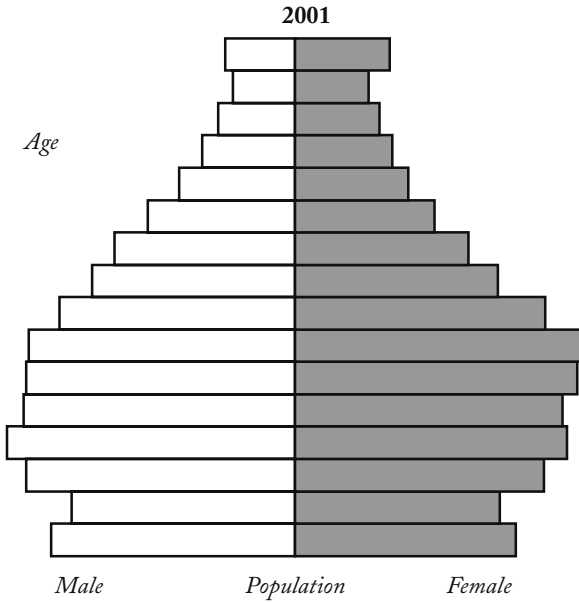
However, there will be a significant decline in the growth rate of the labour force beginning with the first decade of this century and some actual decline after 2021. Equally important will be the change in the structure of the working age population. In 1961 and 1991, the proportion of the working age population in the young working ages (20–34 years) was nearly half of the total; it was 49.7 per cent in 1961 and 50.3 per cent in 1991. However, after 1991, the proportion of the young will undergo a dramatic decline to less than 30 per cent of the total. Between 1991 and 2021, the actual number of such workers will decrease by 1.1 million. Thus the problem of unemployment among the young will greatly ease in the coming years. Other things being equal on the economic front, such easing of the unemployment problem is inevitable. Thus the state could promote employment for youth; then the migration of youth from Kerala to other states of India and to other parts of the world is likely to decline in the near future.

The case among the older workers—above 50 years of age—is quite the opposite. The proportion of the population in the 50–64 years age group will increase from 18.6 per cent in 1991 to 35.5 per cent by 2021. The actual number will also increase considerably—from 2,911,000 to 7,164,000 by 2021. Finding suitable employment for the older working age population will be a major challenge in the early part of the next century.

The middle-aged population (35–49 years) will also increase considerably in absolute terms (3,439,000) during the period 1991–2001, but in relative terms their share will change very little, from 31 per cent to only 35 per cent. The age pyramid of the Kerala population is presented in Figure 3.2.

The Elderly

One of the inevitable consequences of the demographic transition is population ageing. Being ahead in the process, Kerala is expected to see an increase in the number of elderly and their proportion in the total population of the state during the years to come (Irudaya Rajan, 1989, 1999a, 1999b, 2000, 2001, 2002a, 2002b; Irudaya Rajan and Mishra, 1997a, 1997b; Irudaya Rajan and Zachariah, 1998). Defining the elderly population as those aged above 60 years, according to the 1961 census, the number of elderly was just 1.0 million; by the time of the 1991 census, their number increased to 2.6 million. According to our projections, the number of elderly is expected to exceed 6.6 million by 2021 and 11.7 million by

Figure 3.2 Age Pyramid of Kerala, 2001

2051. The change in the proportion of the elderly is even more dramatic. Their proportion was around 9 per cent to the total in 1991, but is expected to increase to 19 per cent in 2021 and to 35 per cent in 2051. The decomposition of the elderly population by age and their categorisation as 'young-old' (60–74 years) and 'old-old' (75 years and above) provides additional information on issues concerning the elderly in the state. Among all the age groups of the state population, the group growing most rapidly is the 'old-old'. Additional demographic information on the elderly is provided in (Table 3.12).

CONCLUSIONS

Kerala's demographic trends in the first half of the 21st century will be dramatically different from those in the second half of the 20th century. Whereas the total population of the state has increased by 135 per cent in the second half of the 20th century (from 13,549,000 in 1951 to an enumerated figure of 31,838,519 in 2001), the growth (if any) in the population during the next half-century will be negligible by comparison. The CDR declined from about 20 per 1,000 to about 6 per 1,000

Table 3.12
Composition of Young-Old (60-74) and Old-Old (75+) in Kerala's Elderly (60+) Population, 1961-2051

Year	Number (thousand)		Proportion (%)		Growth rate (%)		Proportion of total population (%)	
	60-74 years	75 years and older	60-74 years	75 years and older	60-74 years	75 years and older	60-74 years	75 years and older
1961	793	193	80.40	19.56	-	-	5.83	1.14
1971	1,060	267	79.87	20.13	2.90	3.25	6.22	1.25
1981	1,519	391	79.52	20.48	3.59	3.81	7.50	1.54
1991	2,005	568	77.92	22.08	2.78	3.74	8.85	1.95
2001	2,571	871	74.69	25.31	2.48	4.27	10.83	2.74
2011	3,355	1,287	72.27	27.73	2.66	3.90	13.57	3.76
2021	4,889	1,735	73.81	26.19	3.77	2.98	18.59	4.87
2031	6,604	2,565	72.02	27.98	3.01	3.61	25.49	7.13
2041	7,408	3,700	66.69	33.31	1.15	3.36	31.45	10.48
2051	6,932	4,800	59.08	40.92	-0.66	2.60	35.07	14.36

population in the last half of the 20th century, but it is likely to increase from 6 per 1,000 to 13 per 1,000 during the first half of 21st century. The CBR decreased from 40 per 1,000 to about 16 per 1,000 in the last half of 20th century, but it is likely to remain more or less stable in the next century.

While Kerala experienced varying degrees of net out-migration and net emigration in the second half of 20th century, the migration trend in the first half of 21st century is somewhat uncertain. However, it will depend more on socio-economic developments than on demographic trends.

The socio-economic implications of the reversal of the demographic trends will be far-reaching. To begin with, pressure on schools and colleges will become a thing of the past, giving ample opportunities for the educational system to concentrate on the quality of education rather than on serving quantities of students. This principle holds also for hospitals and health personnel catering to the health needs of children. It will be easier to bring about needed improvements in the quality of such services. In the transitional period, parity between the number of females and males in their respective marriage groups will be maintained, but this will offer only a temporary respite.

Other things being equal on the economic front, unemployment among Kerala's young working age population will be greatly reduced. Educated young workers will be able virtually to pick and choose the jobs they want. This, however, will not be the case with older workers. The older working age population is expected to nearly double in the 20 years between 2001 and 2021.

In the last half of the 20th century, the major socio-economic problems faced by Kerala were related to schooling, maintenance of health and nutrition, and finding employment for young people. In the first half of the 21st century, the major socio-economic problems will involve finding gainful employment for the older working age population, maintenance of health and nutrition of the elderly, and providing them with means of subsistence through social security, pension, and other such support programmes.

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EMPLOYMENT AND
UNEMPLOYMENT IN KERALA
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4

INTRODUCTION

Lack of adequate regular, remunerative, and modern work opportunities and chronic unemployment of certain categories of the labour force are the two basic socio-economic problems faced by Kerala since its formation. In spite of the economic change for the last four-and-a-half decades, the structure of the labour market is largely characterised by casual and self-employment, with a small share of regular employment. A basic deficiency of the development process has been its failure to generate adequate regular and remunerative jobs in the organised sector to meet the rapid growth of the educated unemployed. Due to the rapid growth of the educated population, the incidence of educated unemployment was also high. According to the latest National Sample Survey Organisation (NSSO) survey, Kerala is identified as the state with the highest rate of rural unemployment and the second highest rate of urban unemployment among the states in India. The objectives of this chapter are to examine the trends, patterns, and structure of employment and unemployment of Kerala during the 1990s. For our analysis, we have used the conceptual framework of the NSSO. The data used in this study is mainly the secondary data of the latest two NSSO surveys on employment and unemployment. Besides this, census data, employment data of the Directorate of Employment and Training and employment exchange statistics are also used. The chapter is presented in three sections. The first section describes the conceptual framework of the study. The second section examines the trends and structure of employment. The third section presents the characteristics and trends in unemployment.

Conceptual Framework

We have used the NSSO definitions to measure employment, unemployment, labour force, and out-of-labour force. The persons surveyed are

classified into various categories on the basis of the activities pursued by them during certain specified reference periods. Three reference periods are used in these surveys: (a) one year, (b) one week, and (c) each day of the week. Based on these three periods, three different measures are arrived at: (a) usual status, (b) current weekly status, and (c) current daily status.

Classification According to Usual Status

Usual Status (Principal Status)

Employed: Accordingly, a person is considered 'working' or 'employed' if the person was engaged for a relatively longer time during the past year in any one or more work-related activities.

Unemployed: A person is considered as 'seeking or available' for work or 'unemployed' if the person was not working but was either seeking or was available for work for a relatively longer time during the past year.

Out-of-labour force: If a person was engaged in any non-economic activity for a relatively longer time of the reference year, he/she is considered as 'out-of-labour force'.

Usual Status (Principal and Subsidiary Status)

This specific activity category is determined on the basis of the time spent criterion, i.e., the activity on which major time was spent is assigned as the usual status activity. A person categorised as 'employed' on the basis of the principal status is called a 'principal status employed'. A person categorised as a non-worker who pursued some economic activity in a subsidiary capacity is called a 'subsidiary status employed'. These two groups—principal status workers and subsidiary status workers—together constitute 'all workers'.

Classification According to Current Weekly Status

For classification of persons according to the current weekly status approach, they are assigned a unique activity status with reference to a period of seven days preceding the date of survey.

Employed: According to this status, a person is considered working or employed if the person was engaged for at least one hour on any one day of the previous week in any work-related activity.

Unemployed: A person who had not worked for even one hour on any one day of the week, but had been seeking or had been available for work

at any time for at least one hour during the week days is considered 'seeking or available for work'.

Classification According to Current Daily Status

The activity pattern of people, particularly in the unorganised sector, is such that a person might be pursuing more than one activity during a week and sometimes even during a day. In the current daily status, up to two activity statuses were assigned to a person on each day of the reference week. The unit of classification was thus 'half-day' in current daily status. In assigning the activity status on a day, a person was considered working for the entire day if he had worked four hours or more during the day. If he had worked one hour or more but less than four hours, he was considered working (employed) for the entire day and seeking/available for work (unemployed) or not available for work (not in labour force) for the other half-day depending on whether he was seeking/available for work or not. The aggregate of person-days classified under the different activity categories for all the seven days gave the distribution of person-days by activity category during an average week over the survey period of one year.

The NSSO definitions of employed, unemployed, labour force, self-employed, regular employed, casual labour and unemployment rate are given below.

Employed: Persons who are engaged in any economic activity or who, despite their attachment to economic activity, have abstained for reasons of illness, injury or other physical disability, bad weather, festivals, social or religious functions, or other contingencies necessitating temporary absence from work constitute workers.

Unemployed: Persons who, owing to lack of work, had not worked but either sought work through employment exchanges, intermediaries, friends/relatives, or by making applications to prospective employers or expressed their willingness or availability for work under the prevailing condition of work and remuneration are considered as those seeking/available for work or as unemployed.

Labour force: Persons who are either working or seeking or available for work (i.e., unemployed) during the reference period constitute the labour force.

Self-employed: Persons who operate their own farm or non-farm enterprises or are engaged independently in a profession or trade on own-account or with one or few partners are self-employed. The essential

feature of self-employment is that the remuneration is determined wholly or mainly by sales or profits of the goods or services being produced.

Regular employed: Persons working in others' farm or non-farm enterprises, both household and non-household, and getting in return salary or wages on a regular basis (and not on the basis of daily or periodic renewal of work contract) are regular employed.

Casual labour: A person casually engaged in others' farm or non-farm enterprises (both household and non-household) and getting in return wage according to the terms of the daily or periodic work contract is casual labour.

Unemployment rate: Unemployment rate is defined as the percentage of unemployed persons in the total labour force.

TRENDS AND STRUCTURE OF EMPLOYMENT

In this section, we examine the trends and changes in the structure of employment during the 1980s and the 1990s. We present trends in the work participation rate, the structure of rural and urban employment based on industrial classification, and occupations and changes in employment in the organised sector.

Work Participation Rate

The work participation rate denoting the percentage of workers to the total population provides an idea about the participation of the population in economic activities.

Table 4.1 gives the sex-wise work participation rate for rural and urban areas for 1993–94 and 1999–2000. Regarding the trends and pattern of work participation rate, we may draw the following observations:

1. During the second half of the 1990s, there was not much change in rural–urban or sex-wise work participation rates.
2. The female work participation rate for rural and urban areas was much lower than males.
3. The rural work participation rate in Kerala was lower compared to other states and the all-India average.
4. Compared to other states and the all-India average, the urban work participation rate was higher in Kerala.

Economic, social and demographic factors influenced the participation of the population in economic activities. The recession experienced in the

Table 4.1
Work Participation Rates*: Kerala and All-India

Year	Kerala		All-India	
	Rural	Urban	Rural	Urban
Male				
1993–94	53.7	55.9	55.3	52.1
1999–2000	55.3	55.8	53.1	51.8
Female				
1993–94	23.8	20.3	32.8	15.5
1999–2000	23.8	20.3	29.9	13.9
Persons				
1993–94	38.1	37.7	44.4	34.7
1999–2000	38.7	37.3	41.7	33.7

Sources: National Sample Survey Organisation, 2001; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

state's economy during the second half of the 1990s is a major factor contributing to the stagnation in the work participation rate. Factors such as the decline in agricultural activities, small and marginal nature of agricultural holdings, decline in traditional and rural industries, changes in occupational preferences of young rural labour force and migration to other parts of India and abroad have contributed to the lower work participation rate in rural areas. Besides economic factors, a number of social factors like marriage and child rearing, unconducive factors for promoting occupational and geographic mobility, withdrawal of educated labour from manual and difficult occupations, and the general reluctance to engage in self-employment have contributed to the low work participation rate among females.

Structure of Employment

The growth and structural change of employment gives an idea about the overall changes taking place in the employment front. Based on census statistics, the growth and structural change of employment during the 1980s is presented in Table 4.2.

During the 1980s, the annual average growth of employment in the state's economy was 2.2 per cent. Among the sectors, the tertiary sector registered a higher growth rate compared to the others. The categories of employment, which registered a moderately high growth, were construction, transport, storage and communication, trade and commerce and other services. A disturbing development was the fall in the employment

Table 4.2
Growth and Structure of Employment from 1981 to 1991

<i>Industrial category of main workers (Census)</i>	<i>Annual average growth rate from 1981–1991 (%)</i>	<i>Structure of employment</i>	
		<i>1981 (%)</i>	<i>1991 (%)</i>
Primary	1.36	51.65	48.01
Secondary	1.77	18.87	18.18
Tertiary	4.02	29.48	33.81
Total workers	2.22	100.00	100.00

Source: Census of India, 1981, 1991.

of the household industry and small growth in non-household industrial activities. The growth of primary sector employment was also lower. During the 1980s, the broad structural changes that occurred were a decline in the share of primary employment, stagnation in the share of secondary employment and increase in the share of tertiary employment.

The changes in the structure of rural and urban employment for the 1990s are examined on the basis of NSSO data. Here, the definition used to define 'worker' is based on usual principal and subsidiary status. According to the NSSO survey of 1999–2000, 50 per cent of the rural workers are engaged in primary sector activities, 22 per cent in secondary sector activities, while 28 per cent in tertiary sector activities in Kerala (Table 4.3).

Of the total rural workers, 48 per cent are engaged in agriculture. Manufacturing is the second major activity, which provides employment for 13 per cent of rural workers. The other major sub-sectors, which provide sizeable employment are trade, hotels and restaurants, construction, transport and services. During the 1990s, the broad structural changes that occurred with regard to rural employment were a decline in the share of primary employment and an increase in the share of secondary and tertiary sector employment. The categories that witnessed an increase in the share of employment were construction, trade, hotels and restaurants and transport.

Let us examine the pattern of male and female rural employment in Kerala. In rural areas, 43 per cent of the male workers are engaged in agriculture (Table 4.3). The other major activities in which males are employed are manufacturing, construction, trade and commerce, transport and other services. But the pattern of female employment is different. Sixty per cent of the female rural workers are engaged in agriculture. The other major activities in which females are employed are manufacturing

Table 4.3
Distribution of Rural Workers* in Kerala by Industrial Category (%)

Sector	Rural Males		Rural Females		Rural Persons	
	1993–94	1999–2000	1993–94	1999–2000	1993–94	1999–2000
Agriculture	53.2	42.8	63.0	59.8	56.4	48.3
Mining and quarrying	2.0	2.1	0.4	0.8	1.5	1.7
Primary	55.2	44.9	63.4	60.6	57.9	50.0
Manufacturing	9.7	9.4	19.2	19.3	12.8	12.6
Electricity, water, etc.	0.4	0.3	0.1	–	0.3	0.2
Construction	7.5	12.6	2.1	2.7	5.7	9.4
Secondary	17.6	22.3	21.4	22.0	18.8	22.2
Trade, hotels and restaurants	11.6	15.8	3.6	3.7	9.0	11.9
Transport	5.8	9.0	0.4	0.2	4.0	6.2
Real estate and business services	1.4	2.1	0.5	1.1	1.1	1.8
Services (public administration, etc.)	8.6	6.0	10.6	12.5	9.2	8.1
Tertiary	27.4	32.9	15.1	17.5	23.3	28.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2000; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

and services. The proportion of females employed in construction, trade and commerce and real estate is small.

The pattern of urban employment in Kerala is quite different from that of rural employment. According to the NSSO Survey 1999–2000, 59 per cent of the urban workers are engaged in tertiary sector activities, 31 per cent in secondary activities, and 10 per cent in primary activities (Table 4.4).

In urban areas, more than 30 per cent of the workers are engaged in activities such as trade and hotels and restaurants. Nearly 20 per cent are engaged in manufacturing activities. The other sub-sectors that provide sizeable employment are other services, transport and construction. The broad structural changes, which occurred with regard to urban employment during the 1990s, were a substantial fall in the share of primary employment and a moderate increase in the share of secondary and tertiary workers.

The major categories of employment in which urban male workers were employed are manufacturing, construction, trade and commerce,

Table 4.4
Distribution of Urban Workers* in Kerala by Industrial Category (%)

<i>Sector</i>	<i>Urban Males</i>		<i>Urban Females</i>		<i>Urban Persons</i>	
	1993–94	1999–2000	1993–94	1999–2000	1993–94	1999–2000
Agriculture	22.3	7.4	33.3	14.6	25.3	9.5
Mining and quarrying	0.5	0.4	0.4	0.2	0.5	0.3
Primary	22.8	7.8	33.7	14.8	25.8	9.8
Manufacturing	16.3	17.4	25.1	27.2	18.8	20.2
Electricity, water, etc.	0.6	0.6	0.6	0.2	0.6	0.5
Construction	10.0	14.1	3.0	2.1	8.0	10.7
Secondary	26.9	32.1	28.7	29.5	27.4	31.4
Trade, hotel and restaurants	20.6	32.7	6.5	25.1	16.7	30.5
Transport	10.4	11.5	1.0	1.8	7.8	8.7
Real estate and business services	3.5	4.6	1.6	3.7	3.0	4.4
Services (public administration, etc.)	15.9	11.2	28.4	25.1	19.3	15.2
Tertiary	50.4	60.0	37.5	55.7	46.8	58.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2000; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

transport and services. There has been a substantial fall in the share of male workers engaged in agriculture during the 1990s. On the other hand, the female urban workers were mostly engaged in agriculture, manufacturing, trade and commerce and services. Manufacturing, trade and commerce and services are the three major categories, which account for 77 per cent of the occupation of urban female workers.

We have also attempted a comparative analysis of the structure of employment in Kerala and all-India. Table 4.5 gives the industrial category of workers for Kerala and all-India. The major differences in the structure of employment in Kerala and all-India reflected in the table are the following:

1. The percentage of primary workers in Kerala was much lower than the all-India average. This indicates a faster structural transformation of rural Kerala.
2. The share of secondary and tertiary rural workers was higher than the all-India average. This shows that rural Kerala has achieved faster economic changes compared to the all-India position.

Table 4.5
Distribution of Workers* by Industrial Category: Kerala and All-India (%)

Sector	Kerala 1999–2000		All-India 1999–2000	
	Rural	Urban	Rural	Urban
Agriculture	48.3	9.5	76.3	8.8
Mining and quarrying	1.7	0.3	0.5	0.8
Primary	50.0	9.8	76.8	9.6
Manufacturing	12.6	20.2	7.4	22.7
Electricity, water, etc.	0.2	0.5	0.2	0.7
Construction	9.4	10.7	3.3	8.0
Secondary	22.2	31.4	10.9	31.4
Trade, hotel and restaurants	11.9	30.5	5.1	26.9
Transport	6.2	8.7	2.1	8.7
Real estate and business services	1.8	4.4	0.3	4.1
Services (public administration, etc.)	8.1	15.2	4.9	19.5
Tertiary	28.0	58.8	12.4	59.2
Total	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2000; *Sarveksbana*, 1996.

Note: *Usual principal and subsidiary status.

3. However, the structure of urban employment in Kerala shows the same level as the all-India average. This suggests that Kerala's position is somewhat similar to the all-India position in the context of urban employment.

Informal Nature of Employment

The characteristic feature of employment in Kerala is its informal nature. Casual and self-employed workers constitute the major category of workers. In spite of the economic growth and the structural transformation of the rural economy, 84 per cent of the rural workers are either self-employed or casual labourers (Table 4.6).

The share of regular employed was only 14 per cent. Among the male workers, nearly half are casual workers. On the other hand, the majority of female rural workers are self-employed. NSSO data of the workers during the 1990s shows that the structure of workers remained more or less the same. The survey data suggests that there has not been much change in the distribution of rural workers during the 1990s. The structural transformation that has been taking place in rural areas does not

Table 4.6
Distribution of Rural Workers* in Kerala

Category	1993-94			1999-2000		
	Male	Female	Persons	Male	Female	Persons
Self-employed	40.8	55.0	45.4	38.1	53.0	42.9
Regular employed	12.3	9.7	11.5	13.0	15.0	13.7
Casual labour	46.9	35.3	43.1	48.9	32.0	43.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2001; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

guarantee much employment in the non-farm sector. Rural industries also remained backward without generating new regular employment.

Compared to the rural labour market, more changes have been taking place in the urban labour market in Kerala. Of the total workers in urban areas, the self-employed account for 41 per cent (Table 4.7).

Table 4.7
Distribution of Urban Workers* in Kerala

Category	1993-94			1999-2000		
	Male	Female	Persons	Male	Female	Persons
Self-employed	37.5	45.8	39.8	37.4	50.9	41.3
Regular employed	26.8	26.6	26.8	28.0	31.9	29.1
Casual labour	35.7	27.6	33.4	34.6	17.2	29.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2001; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

The share of regular employment was estimated as 29 per cent. The data on the self-employed in urban areas suggests an increasing trend during the second half of the 1990s. An examination of the trend in casual employment in urban areas shows a fall in the share of casual employment. Compared to males, a higher share of female workers is engaged in self-employment. On the other hand, only a low share of female workers is engaged as casual labour.

Let us also present a comparison of the category of labour with all-India statistics. In Kerala, the proportion of casual labourers, both in rural and urban areas, was much higher than the all-India average (Table 4.8).

Table 4.8
Distribution of Workers:* Kerala and All-India

Category	Kerala 1999–2000		All-India 1999–2000	
	Rural	Urban	Rural	Urban
Self-employed	42.9	41.3	55.8	42.2
Regular employed	13.7	29.1	6.8	40.0
Casual labour	43.4	29.6	37.4	17.8
Total	100.0	100.0	100.0	100.0

Sources: National Sample Survey Organisation, 2001; *Sarvekshana*, 1996.

Note: *Usual principal and subsidiary status.

Regarding self-employment, the proportion of rural workers was lower in Kerala compared to the national average. However, a notable feature of the urban labour market in Kerala is the low share of regular employment compared to the national average. On the whole, Kerala's urban labour market has a higher degree of casualisation than the all-India average.

Organised Sector Employment

The workers in the organised sector are those who are regularly employed and are eligible for getting wages and non-wage benefits as per the labour laws. The organised sector comprises all categories of public establishments as well as private establishments employing 10 or more persons. The data on employment in the private organised sector suggests that there has been a small increase in the workers during the 1990s. The total employment in the private sector increased from 0.526 million in 1991 to 0.597 million in 2001–02 (Table 4.9).

On the other hand, employment in the public sector registered only a marginal increase during the 1990s. It may be noted that during the 1990s, the growth in public sector employment was negative for four years. Though structural adjustment reforms (SAR) were implemented at the national level since 1991, their impact on the growth in private investment in productive and service sectors and employment generation was very meagre in Kerala. During the second half of the 1990s, the state government has taken a negative attitude to the SAR implemented at the national level. This has also contributed to the low private investment in the state's economy.

Table 4.9
Employment in the Public and Private Sectors in Kerala

<i>Year</i>	<i>Public Sector</i>	<i>Growth (%)</i>	<i>Private Sector</i>	<i>Growth (%)</i>
1990–91	645,856	–	525,882	–
1991–92	647,853	0.31	532,837	1.32
1992–93	649,199	0.21	536,480	0.68
1993–94	643,615	–0.86	540,472	0.74
1994–95	620,422	–3.60	553,986	2.50
1995–96	624,534	0.66	557,260	0.59
1996–97	625,966	0.23	549,745	–1.35
1997–98	621,975	–0.64	556,241	1.18
1998–99	643,784	3.51	575,801	3.52
1999–2000	643,927	0.02	588,337	2.18
2000–01	643,576	–0.05	597,779	1.60
2001–02	644,906	0.21	596,788	–0.17

Source: State Planning Board, 2003.

TRENDS AND CHARACTERISTICS OF UNEMPLOYMENT

The unemployment of a large section of the active labour force has been the most serious socio-economic problem of Kerala during the last four decades. Due to the enormous—and alarming—increase in unemployment, the unemployment issue has emerged as the foremost political issue of Kerala today. In this section, we present the characteristics and trends in unemployment based on NSSO data.

NSSO surveys conducted throughout the country during the 1990s offer the conclusion that Kerala has very high rates of unemployment compared to other Indian states. According to the NSSO survey of 1999–2000, 22 per cent of the rural labour force is unemployed in Kerala, based on the current daily status definition of unemployment (Table 4.10).

A sex-wise distribution shows that the rural unemployment rate for males is 20 per cent and for females, 26 per cent. The NSSO survey has found that Kerala has the highest unemployment rate for rural areas among Indian states. The survey also shows that 19 per cent of the urban labour force is unemployed in Kerala. The unemployment rate was found very high among females, compared to males. The survey has further found that Kerala had the second highest rate of urban unemployment among Indian states during 1999–2000. Table 4.10 also gives the unemployment rate based on the usual principal status definition, which covers the categories that are unemployed continuously for longer time periods.

Table 4.10
Unemployment Rates in 1999–2000: Kerala and All-India (%)

	<i>Kerala</i>		<i>All India</i>	
	<i>Usual principal status</i>	<i>Current daily status</i>	<i>Usual principal status</i>	<i>Current daily status</i>
Rural				
Male	7.6	20.0	2.1	7.2
Female	19.7	26.1	1.5	7.0
Person	10.9	21.7	1.9	7.1
Urban				
Male	6.9	15.5	4.8	7.3
Female	26.4	28.2	7.1	9.4
Person	12.5	19.1	5.2	7.7

Source: National Sample Survey Organisation, 2001.

Rural Unemployment

The NSSO survey results show that there has been an increase in the rates of rural unemployment during the second half of the 1990s. The unemployment rate based on the current daily status definition has increased from 14.7 per cent in 1993–94 to 21.7 per cent in 1999–2000 (Table 4.11).

Table 4.11
Rural Unemployment Rates in Kerala (%)

	<i>1993–94</i>			<i>1999–2000</i>		
	<i>Male</i>	<i>Female</i>	<i>Person</i>	<i>Male</i>	<i>Female</i>	<i>Person</i>
Usual principal status	7.2	15.8	9.4	7.6	19.7	10.9
Current weekly status	7.1	12.9	8.9	10.1	18.0	12.5
Current daily status	13.1	19.0	14.7	20.0	26.1	21.7

Sources: National Sample Survey Organisation, 2001; *Sarveksbana*, 1996.

The unemployment rates for males as well as females have registered increases during the period. The principal reason for the increase in rural unemployment has been the continuous fall in the price of agricultural commodities during the second half of the 1990s, resulting in serious crisis in the agricultural sector. During the second half of the 1990s, there has been a decline in the price of agricultural commodities such as rice,

ginger, banana, cashew nut, tea, coffee and rubber. It may be noted that rice and rubber are the two major crops of Kerala. The fall in prices has affected the profitability of cultivation, the income and the employment of all those connected with agricultural operations, agro-processing, and trade and commerce of agricultural products. Due to the very small size of agricultural holdings and the fall in profitability of cultivation, a large section of cultivators and self-employed farmers have shifted to non-agricultural operations, especially those connected with urban-based activities. Of the total rural households, 81 per cent possess an average area of land ranging between 0.01 to 0.40 hectares of land (NSSO, 2001). The decline in traditional, labour-intensive industries such as coir, cashew, handloom, *beedi*, handicrafts, etc., has also contributed to the decline in rural employment. Besides this, the large-scale return of Kerala emigrants from the Gulf countries since 1996 has contributed to a substantial fall in construction, trade and commerce, real estate and other services in areas with large concentrations of migrant households.

Urban Unemployment

According to NSSO surveys, the urban unemployment rate based on current daily status has increased from 17.7 per cent in 1993–94 to 19.1 per cent in 1999–2000 (Table 4.12).

Table 4.12
Urban Unemployment Rates in Kerala (%)

	1993–94			1999–2000		
	Male	Female	Person	Male	Female	Person
Usual principal status	7.6	24.4	12.0	6.9	26.4	12.5
Current weekly status	9.3	22.0	12.9	9.7	23.5	13.8
Current daily status	14.1	27.8	17.7	15.5	28.2	19.1

Sources: National Sample Survey Organisation, 2001; *Sarvekshana*, 1996.

The unemployment rate for males as well as females registered a marginal increase during the period. A notable feature of urban unemployment is the high incidence of unemployment among females compared to males. Compared to the urban unemployment rates of Indian states, the rate of unemployment in Kerala is very high. Though we do not have much information about the causes for the high incidence of urban unemployment, a study of urban unemployment in Kochi city gives some idea about

the causes for the high rate of urban unemployment in Kerala (Prakash, 2002). We provide here the major findings of the study.

The high rate of unemployment in Kochi was attributed to factors such as low growth of employment opportunities, structure of labour market characterised by informal and casual employment, casualisation of labour, low participation of women in economic activities, preference of educated youth for regular jobs, social factors discouraging participation of unemployed labour in economic activities, and the recession in Kerala since the second half of the 1990s. The study found that the structure of Kochi's labour market is characterised by the informal sector and casual labour, which account for 80 per cent of the total employment. The high incidence of unemployment among educated youth in Kochi was attributed to factors such as the large supply of educated young labour force leading to excess supply of labour, preference of the educated for regular jobs in public and private sectors, small size and slow growth of organised sector employment, and social factors discouraging self-employment and engagement in casual activities.

Unemployment among Youth and Educated

A characteristic feature of unemployment in developing countries is the high incidence of unemployment among young people. In Kerala's case also, we can notice the same characteristics. The NSSO survey results suggest that the rate of unemployment is very high among young people belonging to the age group of 15–29 years. Nearly 32.3 per cent of young males and 45.8 per cent of young females are unemployed in Kerala (Table 4.13).

Table 4.13
Unemployment Rates among Youth in Kerala
(Current Daily Status), 1999–2000

<i>Category</i>	<i>Age group (years)</i>			
	<i>15–19</i>	<i>20–24</i>	<i>25–29</i>	<i>15–29</i>
Rural				
Male	43.7	32.6	26.4	32.3
Female	50.6	53.8	33.8	45.8
Person	45.9	38.9	28.5	36.3
Urban				
Male	44.7	30.3	15.7	26.6
Female	48.4	61.9	38.8	50.4
Person	45.7	41.8	22.7	34.3

Source: National Sample Survey Organisation, 2001.

The incidence of unemployment was found very high in the age group of 15–19 years, the phase when youth first enter into the labour force. The incidence of youth unemployment is very high both in rural and urban areas. More than one-third of the young labour force in rural and urban areas in Kerala is unemployed.

Another characteristic feature of unemployment in developing countries is the high incidence of unemployment among educated people. An examination of unemployment among the educated shows that this is also true in the case of Kerala. The NSSO survey results show that one-fourth of the educated labour force in rural areas and more than one-fifth of the educated labour force in urban areas is unemployed, based on usual principal status (Table 4.14).

Table 4.14
Unemployment Rates of Educated Persons Aged
15 years and above (Usual Principal Status)

<i>Category</i>	<i>1993–94 (%)</i>	<i>1999–2000 (%)</i>
Rural		
Male	18.5	15.0
Female	49.6	49.1
Person	27.2	25.3
Urban		
Male	12.6	9.9
Female	40.6	41.9
Person	21.4	21.2

Source: National Sample Survey Organisation, 2001.

A notable characteristic of unemployment among the educated is the high incidence of female unemployment in urban as well as rural areas. The NSSO survey results suggest that 49 per cent of the female educated labour force in rural areas and 42 per cent of the female educated labour force in urban areas is unemployed.

Employment Exchange Statistics

The employment exchange data on work seekers in the live register will give us an idea about the growing number of work seekers, especially from the educated category. Though we cannot consider the work seekers in the live register as ‘unemployed’, the growth in their number will give an

idea about the growing magnitude of people seeking employment in the organised sector. The total work seekers in the general category increased from 26.38 lakh in 1991 to 44.31 lakh in 2001 (Table 4.15).

Table 4.15
Distribution of Work Seekers in Kerala by Educational Level

<i>Year</i>	<i>Below SSLC</i>	<i>SSLC</i>	<i>PDC</i>	<i>Degree</i>	<i>PG</i>	<i>SSLC and above</i>	<i>Total work seekers</i>
1991	1,318,514	1,885,304	257,173	150,014	27,799	2,320,230	2,638,804
1996	822,183	1,984,136	287,766	161,962	31,427	2,465,291	3,287,474
2001	966,914	2,574,722	542,815	280,618	66,270	3,464,425	4,431,339

Source: State Planning Board, 2003.

Notes: SSLC—Secondary School Leaving Certificate;

PDC—Pre-Degree Course;

PG—postgraduate.

A trend in the growth rate of educated and non-educated during the 1990s suggests that the growth rate was high in the case of educated categories (Table 4.16).

Table 4.16
Annual Average Growth of Work Seekers (%)

<i>Year</i>	<i>Below SSLC</i>	<i>SSLC</i>	<i>PDC</i>	<i>Degree</i>	<i>PG</i>	<i>SSLC and above</i>	<i>Total work seekers</i>
1991–96	-7.9	1.51	3.05	2.19	4.43	1.77	6.68
1996–2001	3.38	5.36	13.82	11.63	16.14	7.05	6.17

Notes: SSLC—Secondary School Leaving Certificate;

PDC—Pre-Degree Course;

PG—postgraduate.

Among the work seekers holding different educational qualifications, the postgraduates, pre-degree holders, and degree holders registered a very high growth rate during the second half of the 1990s. The non-educated—namely those with an educational level below Secondary School Leaving Certificate (SSLC)—registered the lowest growth rate during the second half of the 1990s. Table 4.16 gives the annual average growth of work seekers of different categories during the first and second halves of the 1990s.

Besides the general category of work seekers, professional and technical work seekers also register with the employment exchanges. This category comprises medical, engineering, agricultural and veterinary graduates, diploma holders in engineering, and certificate holders from Industrial Training Institutes (ITIs). There has been a continuous increase in the professional and technical work seekers during the 1990s. The total work seekers under this category increased from 1.09 lakh in 1991 to 1.77 lakh in 2001. Table 4.17 gives the category-wise break-up of professional and technical work seekers.

Table 4.17
Number of Professional and Technical Work Seekers

<i>Year (ending December)</i>	<i>Medical gradu- ates</i>	<i>Engin- eering gradu- ates</i>	<i>Diploma holders in engin- eering</i>	<i>ITI certi- ficate holders</i>	<i>Agri- cultural gradu- ates</i>	<i>Veter- inary gradu- ates</i>	<i>Total</i>
1991	2,588	7,762	22,399	75,898	363	13	109,023
1996	1,976	7,274	28,565	89,847	1,265	32	128,959
2001	2,734	10,397	46,377	115,736	1,503	383	177,130

Source: State Planning Board, 2003.

Note: ITI—Industrial Training Institute.

CONCLUSIONS

The above analysis may be concluded with the following observations. In spite of the economic change and structural transformation, there has not been much change in the pattern of rural employment in Kerala during the 1990s. Kerala's rural labour market is still dominated by self-employment and casual labour with a small share of regular employment. The only visible change in the rural labour market is a small increase in the share of secondary and tertiary sector employment. Compared to the rural labour market, more changes have occurred in the urban labour market, which witnessed a moderate increase in the share of secondary and tertiary workers during the 1990s. However, the structure of the urban labour market is still dominated by self- and casual-employment. Though economic reforms have been implemented at the national level since 1991, it has not succeeded in promoting more private investment or generation of substantial employment in the organised public and private sectors.

Kerala's unemployment—both urban and rural—has been growing and reached an alarming level by the beginning of the millennium. The findings of nationwide surveys show that the rates of urban and rural unemployment in Kerala are among the highest in the country. The survey results also show that there has been an increase in unemployment between 1993 and 2000. The high incidence of unemployment in rural Kerala may be attributed to factors such as the price fall of agricultural commodities, the shift in the occupational pattern from agriculture to non-agricultural avenues, small and tiny nature of agricultural holdings, decline in all traditional, labour-intensive industries, and the economic consequences created due to the exodus of Kerala emigrants from the Gulf countries. The incidence of urban unemployment is also high due to the urban labour market being characterised by self- and casual-employment. Kerala also has high incidence of unemployment among youth and educated people. Another notable feature of educated unemployment in Kerala is the very high incidence of female unemployment. Nearly half the rural female educated labour force and 42 per cent of the female urban labour force are unemployed. Data on work seekers showed that there has been rapid increase in work seekers holding educational qualifications such as pre-degree, graduation and postgraduation. Available evidence suggests that there has been a steady growth in professional and technical work seekers. It is disturbing to note that there has been a spurt in the growth of work seekers such as engineering graduates, diploma holders in engineering, ITI certificate holders and medical graduates during the second half of the 1990s.

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TRENDS AND PATTERNS OF EMIGRATION
TO THE WEST ASIAN COUNTRIES
B.A. Prakash

5

INTRODUCTION

During the last quarter of the last century, Gulf migration has been the single most dynamic factor, which has given the biggest push to Kerala's economy. A study of the economic impacts of Gulf migration on Kerala's economy came to the conclusion that since the mid-1970s the factor that had the greatest impact on Kerala's economy—especially on labour market, consumption, savings, investment, poverty, income distribution, and economic growth—has been Gulf migration and migrant remittances (Prakash, 1998). Another study on emigration and out-migration based on a sample survey of 10,000 households covering all *taluks* of Kerala arrived at the conclusion that migration has contributed more to poverty alleviation and reduction in unemployment in Kerala than any other factor including agrarian reforms, trade union activities, and social welfare legislation during the last quarter of the last century (Zachariah et al., 1999).

Though there was rapid growth in emigration to the Gulf during the first half of the 1990s, the situation has drastically changed since 1996. The fall in oil prices, recession in the Gulf countries, stiff competition from migrants belonging to other countries, policy to reduce the size of foreign workers, promotion of native workers in job placements, reduction in wage rates and imposition of stringent restrictions on migrant labour has resulted in the exodus of large numbers of emigrants. According to an estimate, the number of emigrants that returned to Kerala from the Gulf between 1996 and mid-1998 was 3.13 lakh. This exodus of emigrants has created serious economic consequences in at least 10 districts of Kerala, with high incidence of migration to the Gulf.

The objectives of this study are to examine the trends in emigration, return emigration, causes of the return, and the status of the return emigrants. The chapter is presented in four sections, the first being this

introduction. The second section presents the trends in emigration and remittances. The third and fourth sections examine the trends in return emigration and the status of return emigrants based on a field study.

Conceptual Framework

According to one classification, the migrants are classified into the following major categories: foreigners admitted for special purposes, settlers, migrant workers, economic migrants and asylum migrants (Bilborrow et al., 1997). The International Labour Organisation (ILO) has classified international migration for employment into two major categories: settlement migration and contract migration (ILO, 1989). Settlement migration is a traditional type of migration in which people migrate from one country to another to secure jobs and settle there. People from underdeveloped economies having higher skills and professional qualifications used to migrate to developed countries to secure better job opportunities and living conditions and to settle there. This type of migration is often associated with the concept of 'brain drain'. The volume of movements of this type from developing to developed countries declined during the 1970s (ILO, 1989).

International contract migration occurs when a worker is officially granted permission to enter another country and take up employment in a given job and where a contract is entered into on his behalf or between him and the employer or enterprise for which he is to work. The contract itself can take several forms, like individual and collective contracts. In a collective contract, a number or a group of foreign workers are admitted for the purpose of employment under a single authorisation or on behalf of a single employer. It has variously been referred to as block visa migration, collective contract migration, or project-tied migration. Project-tied migration conjures up a picture of foreigners admitted to a migrant receiving country for a period on the basis of a work contract with an enterprise or employer to carry out in that country specific projects that, by their nature, are limited in time.

Examining the international migration for employment during the 1970s and the early 1980s, the ILO has come to the conclusion that contract migration has outnumbered settlement migration. The treatment of contract migrants in countries of employment has aroused a great deal more concern than the treatment of any other group of migrants. Foreigners admitted for the purpose of employment are rarely viewed as future nationals and are subjected to various forms of discrimination.

A number of scholars have reviewed the existing models of international migration (Heisel, 1982; Massey et al., 1993). From these studies, it is evident that there exists no integrated theory of the process of international migration but only a set of partial theories and models developed from different disciplinary viewpoints. While the earlier theoretical models concentrated exclusively on the process of labour migration, the recent ones try to explain why migration continues once it has started. Though several theoretical approaches are followed to discuss settlement migration, none discusses issues connected with contract migration and return migration. In the context of contract migration to West Asian countries, the labour market factors have a crucial role in determining the nature, category and flow of migration as well as of return migration.

TRENDS IN EMIGRATION AND REMITTANCES

Regarding the trends and magnitude of emigration from Kerala to the West Asian countries, we have three data sources. The first is the data provided by the Ministry of External Affairs. As the estimate is not based on systematic collection of data but on rough estimates of Indian embassies, it provides only a rough account about the total stock of Indian emigrants. According to the estimate, the total stock of Indian emigrants in the Gulf increased from 12.35 lakh in 1990 to 30.70 lakh in 2000 (Table 5.1). The important destinations of Indian emigrants in the Gulf are Saudi Arabia, the United Arab Emirates (UAE), Oman, Kuwait, Bahrain and Qatar (Table 5.2). Indian embassies in the West Asian

Table 5.1
Stock of Indian Emigrants in West Asia

<i>Year</i>	<i>Number of Indian Emigrants (in lakh)</i>	<i>Number of Keralite Emigrants (in lakh)</i>
1979	5.01	2.50
1981	5.99	2.99
1983	9.16	4.58
1987	9.57	4.78
1990	12.35	6.17
1991	16.50	8.25
1996	28.00	14.00
2000 (February)	30.70	15.35

Source: Ministry of External Affairs, Government of India.

Table 5.2
Stock and Percentage of Indian Emigrants in West Asia, February 2000

<i>Country</i>	<i>Stock of Indian Emigrants (in lakh)</i>	<i>Percentage</i>
Saudi Arabia	12.0	39.09
United Arab Emirates	10.0	32.57
Oman	3.4	11.07
Kuwait	2.8	9.12
Bahrain	1.3	4.23
Qatar	1.2	3.91
Total	30.7	100.00

Source: Gulf Division, Ministry of External Affairs, Government of India.

countries have estimated that the share of Keralite emigrants to the total Indian emigrants was more than half. Assuming the share of Keralite emigrants as half, the total stock of Keralite emigrants in the West Asia was 15.35 lakh in 2000. The data suggests that there has been a spurt in emigration to West Asia during the first half of the 1990s. The total stock of Keralite emigrants increased from 6.17 lakh in 1990 to 15.35 lakh in 2000.

The second source of data is the estimates of the Department of Economics and Statistics, Government of Kerala. Three surveys were conducted in 1980, 1987 and 1992–93, and estimates of the Keralite emigrants in the Gulf were available for the above years (Table 5.3). Accordingly, the total stock of Keralite emigrants in the West Asian countries was 6.41 lakh in 1992–93 (Table 5.3). As the 1980 survey is a census type survey, the estimates provide a realistic picture about the total emigrants from Kerala. But due to the small sample size, poor coverage and under reporting, the other two estimates were gross under estimates.

Table 5.3
Estimates on Keralite Emigrants in West Asia

<i>Year</i>	<i>Total emigrants (in thousand)</i>	<i>Return emigrants (in thousand)</i>
1980	186	–
1987	300	86
1992–93	641	116

Source: Department of Economics and Statistics, 1982; 1987; 1994.

The third estimate is the estimate of Zachariah et al., (1999), based on primary data collected from a sample of 10,000 households covering all *taluks* of the state. The survey estimated the total emigrants at 13.62 lakh in the second half of 1998 (Table 5.4). In order to study the intensity of emigration, emigration rates were worked out for all districts. It was found that the Malappuram district had the highest rate of emigration followed by Pathanamthitta, Thrissur and Kozhikode. The study found that the intensity of emigration was very high in some of the taluks located in northern Kerala. Tirur *taluk* was identified as the *taluk* having the highest intensity of emigration (Table 5.5). The other *taluks* having high intensity of emigration are Ponnani, Chavakkad, Thiruvalla, Ernad and Ranni. Among the estimates on emigrants available, this estimate is the most comprehensive one giving basic data about emigration from Kerala to Gulf countries.

The study also gives an estimate about the country of destination of Keralite emigrants. It is found that nearly 94 per cent of Keralite emigrants emigrated to Gulf countries comprising Saudi Arabia, UAE, Bahrain, Kuwait, Qatar and Oman (Table 5.6). According to this study, Saudi Arabia has the largest share of Keralite emigrants followed by the UAE

Table 5.4
Number of Emigrants in Kerala, 1998

<i>District</i>	<i>Emigrants</i>	<i>Emigration rate (emigrants per 100 households)</i>
Thiruvananthapuram	130,705	19.9
Kollam	102,977	18.4
Pathanamthitta	97,505	33.1
Alappuzha	62,870	13.2
Kottayam	35,494	9.1
Idukki	7,390	2.9
Ernakulam	103,750	17.0
Thrissur	161,102	25.6
Palakkad	116,062	21.8
Malappuram	296,710	49.2
Kozhikode	116,026	22.0
Wayanad	4,552	2.9
Kannur	88,065	19.0
Kasaragode	38,747	19.1
Kerala	1,361,955	21.4

Source: Zachariah et al., 1999.

Table 5.5
Taluks with the Highest Emigration Rates

<i>Taluk</i>	<i>Number (in thousand)</i>	<i>Emigration rate (in percentage)</i>
Thirur	140	69
Ponnani	29	59
Chavakkad	53	58
Thiruvalla	26	45
Ernad	97	38
Ranni	19	37
Ottapalam	55	33
Vadakara	38	32
Kochi	30	31
Palakkad	37	31

Source: Zachariah et al., 1999.

Table 5.6
Number of Emigrants from Kerala

<i>Country of destination</i>	<i>Number (in thousand)</i>	<i>Percentage</i>
Saudi Arabia	519	38.1
United Arab Emirates	405	29.7
Oman	142	10.4
Bahrain	77	5.7
Kuwait	69	5.1
Qatar	64	4.7
USA	30	2.2
Others	57	4.2
Total	1,363	100.0

Source: Zachariah et al., 1999.

and Oman. Saudi Arabia and the UAE account for 68 per cent of the total emigrants from Kerala. An important aspect of Kerala's emigration is that 94 per cent of the emigrants live in Gulf countries.

Remittances

We do not have accurate data on the remittances sent by migrant workers. Based on data from the World Bank, an attempt is made to estimate the remittances received in Kerala. Though the World Bank gives the total remittances sent by Indian workers from foreign countries, no

country-wise figures are available. So our estimate is based on two assumptions. First, it is assumed that the share of remittances from West Asia is 75 per cent. The assumption is based on the findings of a study by the Economic and Social Commission for Asia and Pacific in 1989 on international migration and remittances (ESCAP, 1987). Second, the share of Kerala is assumed at 50 per cent, as Keralites account for more than half the Indian migrant workers in West Asia. According to this estimate, the remittances received in Kerala from West Asia increased from Rs 1,307 crore in 1990 to Rs 12,411 crore in 1997 (Table 5.7). It may be noted that the magnitude of remittances was equivalent to 26 per cent of Kerala's Net State Domestic Product (NSDP) of Kerala of 1997. An attempt is also made to estimate the remittances received in Kerala based on the data collected from the UAE exchange centre, Abu Dhabi, and a migration study conducted by Zachariah et al. It is estimated that the annual average remittances received from Gulf countries between 1998 and 2000 were Rs 12,640 crore (Table 5.8). The remittances equalled 22 per cent of Kerala's NSDP. The total workers' remittances received from all the foreign countries was estimated as Rs 13,815 crore.

A break-up of workers' remittances received from all countries shows that 38.6 per cent of the remittances are received from Saudi Arabia alone (Table 5.9). The UAE accounts for 27.2 per cent. Thus Saudi Arabia and UAE account for 65.8 per cent of the total remittances. The countries other than those in the Gulf account only for 8.5 per cent of the total remittances received in Kerala.

Table 5.7
Workers' Remittances from West Asia to Kerala

<i>Year</i>	<i>Remittances to Kerala (Rs crore)</i>	<i>Remittances as a percentage of the Net Domestic Product of Kerala</i>
1990	1,307	10.74
1991	3,137	20.77
1992	2,879	16.76
1993	3,622	15.48
1994	5,857	20.41
1995	8,033	22.90
1996	12,415	30.42
1997	12,411	25.90
Total	49,661	—

Source: World Bank, 1999.

Table 5.8
Estimated Workers' Remittances to Kerala

	<i>Year</i>			
	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>1998–2000 (average)</i>
Remittances from Gulf countries (Rs crore)	11,080	12,940	13,899	12,640
Remittances from all foreign countries (Rs crore)	12,110	14,143	15,192	13,815
Net State Domestic Product (NSDP) (Rs crore)	51,060	56,926	63,094	57,027
Remittances from the Gulf as a percentage of the NSDP	21.70	22.73	22.03	22.16
Remittances from all countries as a percentage of the NSDP	23.72	24.84	24.08	24.23

Source: Zachariah et al., 2002.

Table 5.9
Country-wise Distribution of Workers' Remittances

<i>Country</i>	<i>Amount (Rs crore)</i>	<i>Percentage</i>
Saudi Arabia	5,333	38.60
United Arab Emirates	3,757	27.20
Kuwait	1,232	8.92
Muscat	816	5.91
Oman	284	2.06
Qatar	628	4.55
Bahrain	590	4.27
Others	1,175	8.51
Total	13,815	100.00

Source: Zachariah et al., 2002.

TRENDS IN RETURN EMIGRATION

According to the 1998 survey, the total number of emigrants returned to Kerala was estimated as 7.39 lakh (Table 5.10). An examination of the rate of return of emigration showed that Malappuram district had the highest return emigration rate followed by Thrissur, Pathanamthitta and Thiruvananthapuram. It may be noted that the districts with a higher intensity of migration had a higher intensity of return emigration too.

On the other hand, districts with a low rate of emigration had a low rate of return emigration. A *taluk*-wise estimate of the return emigration rate suggested that some *taluks* like Kodungalloor, Ponnani, Thiruvalla, Chirayinkeezhu and Chavakkad had a very high rate of return emigration (Table 5.11).

Table 5.10
Number of Return Emigrants in Kerala, 1998

<i>District</i>	<i>Return emigrants</i>	<i>Return emigration rate (return emigrants per 100 households)</i>
Thiruvananthapuram	118,878	18.1
Kollam	74,106	13.2
Pathanamthitta	54,537	18.5
Alappuzha	34,572	7.2
Kottayam	18,164	4.6
Idukki	5,017	2.0
Ernakulam	45,028	7.4
Thrissur	116,788	18.6
Palakkad	39,238	7.4
Malappuram	123,750	20.5
Kozhikode	60,910	11.5
Wayanad	3,327	2.1
Kannur	28,263	6.1
Kasaragode	16,667	8.2
Kerala	739,245	11.6

Source: Zachariah et al., 1999.

Table 5.11
Taluks with the Highest Return Emigration Rates

<i>Taluk</i>	<i>Number (in thousand)</i>	<i>Return emigration rate</i>
Kodungalloor	27	38.6
Ponnani	19	37.7
Thiruvalla	16	28.1
Chirayinkeezhu	38	27.6
Chavakkad	25	26.4
Thiruvananthapuram	50	24.7
Ranni	12	23.5
Thalapally	25	21.1
Kollam	40	20.4
Perinthalmanna	20	19.9

Source: Zachariah et al., 1999.

The survey also provided country-wise and year-wise estimates of the return of emigrants. It revealed that 93 per cent returned from Gulf countries like Saudi Arabia, the UAE, Kuwait, Oman, Bahrain and Qatar (Table 5.12). Another finding of the study was that of the total return emigrants, 41 per cent returned from Saudi Arabia and 26 per cent from the UAE. Thus developments in the expatriate labour market of these countries will have a crucial bearing on the prospects of emigration and return emigration.

Another finding of the study was that compared to the 1980s and the first half of the 1990s, the rate of return was much higher since 1996. Of the total return emigrants, 42 per cent returned during 1996, 1997 and the first half of 1998 (Table 5.13). This is an unprecedented return of Keralite emigrants from the Gulf countries.

Many factors have contributed to this unprecedented return of Keralite emigrants. The UAE tightened the immigration laws in 1996. Saudi Arabia and Bahrain also imposed stringent restrictions on emigrant labour in 1997. Saudi Arabia stopped issuing visas to certain categories of workers. The aims of labour restrictions were to send back the illegal emigrant workers, discourage the emigration of many categories of unskilled workers, and bring up spouses of emigrants. Besides these restrictions, the countries also followed a policy of reducing the wage rates of unskilled and skilled emigrant workers.

Table 5.12
Country of Origin of Return Emigrants to Kerala

<i>Country</i>	<i>Number of return emigrants (in thousand)</i>	<i>Percentage</i>
Saudi Arabia	301.8	40.83
UAE	192.4	26.03
Kuwait	34.8	4.71
Oman	92.3	12.48
Qatar	23.2	3.14
Bahrain	44.0	5.95
Iraq	4.9	0.66
South-East Asia	7.9	1.07
Nepal, Bangladesh	4.9	0.66
USA	1.2	0.16
Others	31.8	4.30
Total	739.2	100.00

Source: Zachariah et al., 1999.

Table 5.13
Year-wise Return of Emigrants to Kerala

<i>Year</i>	<i>Number of return emigrants (in thousand)</i>	<i>Percentage</i>
Up to 1980	34.1	4.62
1981–90	162.8	22.03
1991	20.1	2.72
1992	43.3	5.86
1993	35.3	4.79
1994	57.9	7.84
1995	73.1	9.90
1996	106.8	14.44
1997	126.9	17.16
1998	78.9	10.64
Total	739.2	100.00

Source: Zachariah et al., 1999.

A study conducted about the causes of return emigration and the prospects of emigration in the UAE came to the following conclusions (Zachariah et al., 2002):

1. The central theme on which the entire emigration, labour, and economic policies are prepared is based on demographic imbalance theory. The UAE is in danger due to the large number of foreign nationals. So the policy is to reduce demographic imbalance, control the inflow of unskilled labour, and train the existing workforce to cope with modern technology.
2. The government is vigorously following a policy of emiratisation, i.e., giving priority to natives in job placements and reserving certain categories of jobs for nationals.
3. To curtail the number of foreign unskilled labourers, the government is forcing private establishments to invest in modern technology.
4. The government is following a policy of privatisation of public utilities such as water, electricity and other public services.
5. The major infrastructure projects requiring large numbers of unskilled, semi-skilled and skilled construction workers have been almost completed.
6. The economy has been witnessing a recession since 1996, resulting in a substantial fall in employment.
7. With the objective of reducing the migration of foreign workers, the government had stopped accepting applications for visas of

unskilled labourers from India, Pakistan and Bangladesh from 18 July 1999. Besides this, the government also stopped the renewal of cards of foreign workers.

8. There has been a decline in the demand for the unskilled, semi-skilled and certain categories of skilled workers. And, in the future, the demand will be for certain categories of skilled workers, technicians, computer workers, heavy equipment operators, electrical workers, and professionals such as doctors, nurses, engineers, teachers and accountants.

STATUS OF RETURN EMIGRANTS: FINDINGS OF A FIELD STUDY

Socio-economic Background

In order to study the trends of return emigration, causes of return and profile of return emigrants, data was collected from a sample of 80 return emigrants from Varkala town in July 2000. The town belongs to the Chirayinkeezhu *taluk* of Thiruvananthapuram district. The town has a history of emigration during the early part of the 20 century; labourers had migrated to British colonies like Ceylon, Malaysia, Singapore and Burma. However, the largest emigration from the town occurred during the 1970s to the Gulf countries. The emigration towards the Gulf continued in the 1980s and 1990s. According to an estimate, the emigration rate—the number of persons emigrated per 100 households—was 30 and the return emigration rate was 28 in Chirayinkeezhu *taluk* (Zachariah et al., 1999).

Using a structured schedule, we have collected information from a sample of 80 returned emigrants residing in seven divisions of the town. First, we will start with the socio-economic background of the return emigrants. Of the total sample returnees, 31 per cent belong to the Nair community, classified as a forward community in Kerala. Another 59 per cent belong to backward communities like Ezhava, Muslims, Vanika Vysya and Viswakarma. Ten per cent of the returnees belong to Scheduled Castes and Scheduled Tribes. A religion-wise distribution revealed that of the total sample returnees, 94 per cent are Hindus while 6 per cent are Muslims. All sample returnees were male and 98 per cent were married. The study revealed that the majority of the emigrants had only a low educational level of below Standard 10. Only 20 per cent had passed Standard 10, while another 11 per cent had passed Standard 12. Only a few had studied vocational courses. An enquiry about their economic

status prior to migration revealed that nearly 18 per cent were unemployed. Those who were employed prior to migration worked as construction workers (masons, carpenters, painters, etc.) and other skilled workers (electricians, mechanics, welders, casual labourers, etc.) or were self-employed.

Stay in the Gulf

From the sample returnees, we have collected information relating to the cost of emigration, the country to which they migrated, the category of job in which they were employed, the number of years they worked, the non-wage benefits they received, and the savings they made from emigration. The emigrants from Varkala migrated mainly to the UAE, Oman and Saudi Arabia. From our sample, two persons migrated to Qatar and one each to Bahrain and Kuwait (Table 5.14). A major factor, which promoted emigration from Varkala, was the help and support provided by the friends and relatives who had already emigrated to the Gulf. Nearly 76 per cent of the sample returnees received some help in getting visas and arranging for the travel, accommodation, etc., in the Gulf either from relatives or friends. The returnees also spent considerable amounts of money as the cost for getting visas, passports and other emigration-related issues. It is reported that they spent anything from Rs 15,000 to over Rs 50,000 as the cost of emigration (excluding the cost of travel).

The jobs in which the sample returnees worked in the Gulf may be classified into five categories: construction workers, mechanical staff and drivers, sales workers, clerical staff and others. About 47 per cent of the

Table 5.14
Country to which Emigrated (%)

<i>Year of migration</i>	<i>United Arab Emirates</i>	<i>Oman</i>	<i>Saudi Arabia</i>	<i>Qatar, Bahrain and Kuwait</i>	<i>Total</i>
1965-70	4 (8.7)	2 (9.5)	—	—	6 (7.5)
1971-75	8 (19.6)	1 (4.8)	—	—	10 (12.5)
1976-80	8 (17.4)	8 (38.1)	2 (22.2)	3 (75.0)	21 (26.2)
1981-85	10 (21.7)	4 (19.0)	3 (33.4)	—	17 (21.2)
1986-90	7 (15.2)	3 (14.3)	2 (22.2)	1 (25.0)	13 (16.3)
1991-95	6 (13.1)	3 (14.3)	2 (22.2)	—	11 (13.8)
1996-99	2 (4.3)	—	—	—	2 (2.5)
Total	46 (100.0)	21 (100.0)	9 (100.0)	4 (100.0)	80 (100.0)

sample emigrants worked in construction labour categories such as masons, carpenters, painters, electricians and other construction labourers (Table 5.15). Another 30 per cent worked as mechanical staff and drivers, 5 per cent as clerical staff and 8 per cent as others. It is reported that about 40 per cent of the construction workers in our sample were employed as casual labourers. The sample emigrants, both construction workers and other categories, used to work eight to 10 hours per day, and it is reported that about 76 per cent of the workers worked eight hours per day for six days a week.

Table 5.15
Type of Job in the Gulf (%)

<i>Type of job</i>	<i>United Arab Emirates</i>		<i>Saudi Arabia</i>	<i>Qatar, Bahrain and Kuwait</i>	<i>Total</i>
	<i>Emirates</i>	<i>Oman</i>			
Mason	5 (10.9)	6 (28.6)	1 (11.1)	—	12 (15.0)
Painter	4 (8.7)	2 (9.5)	1 (11.1)	—	7 (8.8)
Carpenter	3 (6.5)	2 (9.5)	2 (22.2)	—	7 (8.8)
Electrician	3 (6.5)	1 (4.8)	—	—	4 (5.0)
Other construction labourers	4 (8.7)	3 (14.3)	1 (11.1)	—	8 (10.0)
Mechanic	10 (21.8)	3 (14.3)	2 (22.2)	2 (50.0)	17 (21.2)
Driver	6 (13.0)	—	—	1 (25.0)	7 (8.8)
Sales worker	6 (13.0)	2 (9.5)	—	—	8 (10.0)
Clerical	1 (2.2)	2 (9.5)	—	1 (25.0)	4 (5.9)
Others	4 (8.7)	—	2 (22.2)	—	6 (7.5)
Total	46 (100.0)	21 (100.0)	9 (100.0)	4 (100.0)	80 (100)

The workers were paid only wages and they were forced themselves to meet the cost of accommodation, food, medicine, travel, etc. It is reported that only 9 per cent of the workers were provided with free accommodation by the employers. Of the 80 sample returnees interviewed, only three—a mason and two mechanics—reported that their travel cost was borne by their employers. This suggests that almost the entire cost connected with travel, accommodation, food, medicines, etc., was borne from the wages received by the emigrant workers.

We have collected information about the savings and the amount of monthly remittances by the sample returnees who returned during the first half of 1990s and since 1996. Of the total sample workers that returned during the first half of 1990s, 16 per cent sent a monthly remittance of up to Rs 1,000 and another 44 per cent sent an amount

ranging between Rs 1,001 and Rs 2,000. The categories of workers who sent the lowest amount of remittances were unskilled construction workers and the categories of workers who reported their job as unspecified. Nearly one-fourth of the workers sent an amount ranging between Rs 3,001 and Rs 5,000 during the first half of the 1990s. On the other hand, the rate of monthly remittances sent by the returnees who returned since 1996 was lower.

The return emigrants had worked long periods in the Gulf countries ranging between two and 21 years. If we take all the sample returnees, we can find that 63 per cent of the total returnees had worked for more than 10 years in the Gulf countries. We have also collected information about the categories of workers who worked longer periods in the Gulf. It is revealed that the categories of workers who worked for 14 or more years were masons, painters, electricians, drivers and workers in the mechanical trade. Compared to other categories, the mechanics worked for the longest periods. The categories of workers who spent relatively shorter durations were unskilled construction workers, sales workers and clerical staff.

Causes of Return

Though many factors have contributed to the large-scale return of emigrants from the Gulf since 1996, the immediate cause was the imposition of stringent restrictions on migrant labour, especially unskilled labourers and other low-paid categories. The information gathered from the sample returnees suggests that there has been a large-scale return of emigrants since 1996. Of the total sample returnees, 48 per cent have returned between 1996 and 1999 (Table 5.16).

Based on the information supplied by the sample returnees, we have classified the causes of return into five categories: no job, reduction in

Table 5.16
Returns from Various Countries (%)

<i>Year of return</i>	<i>United Arab Emirates</i>	<i>Oman</i>	<i>Saudi Arabia</i>	<i>Bahrain, Qatar and Kuwait</i>	<i>Total</i>
1980-90	7 (15.0)	5 (25.0)	—	1 (25.0)	13 (16.3)
1991-95	20 (42.5)	3 (15.0)	4 (44.4)	2 (50.0)	29 (36.2)
1996-99	20 (42.5)	12 (60.0)	5 (55.6)	1 (25.0)	38 (47.5)
Total	47 (100.0)	20 (100.0)	9 (100.0)	4 (100.0)	80 (100.0)

salary, immigration laws, health problems and others. It is revealed that 75 per cent of the sample returnees returned either due to lack of job opportunities, reduction in salary, or immigration laws (Table 5.17).

Table 5.17
Causes for Return (Country-wise)

<i>Country</i>	<i>No job</i>	<i>Reduction in salary</i>	<i>Immigration laws</i>	<i>Health problems</i>	<i>Others</i>	<i>Total</i>
United Arab Emirates	25 (53.2)	11 (23.1)	2 (4.4)	6 (12.8)	3 (6.5)	47 (100.0)
Oman	5 (25.0)	5 (25.0)	2 (10.0)	4 (20.0)	4 (20.0)	20 (100.0)
Saudi Arabia	3 (33.3)	3 (33.3)	2 (22.2)	1 (11.1)	—	9 (100.0)
Bahrain, Qatar and Kuwait	1 (25.0)	1 (25.0)	—	—	2 (50.0)	4 (100.0)
Total	34 (42.5)	20 (25.0)	6 (7.5)	11 (13.7)	9 (11.3)	80 (100.0)

Under the 'no job' head, the important causes were expiry of visa period, ending of the period of contract, and closure of the company. Eleven per cent of the returnees were forced to return due to the expiry of the visa period. Another 10 per cent reported ending the period of contract as the reason for return. Five per cent reported closure of their company as the reason for return. The other reasons reported under the category of 'no job' were fall in demand for construction workers, reduction in the number of staff in companies and establishments and difficulty in finding a suitable job. A country-wise break-up of the causes for return also suggests that the main reasons for the return of emigrant workers from the UAE, Oman and Saudi Arabia were lack of job opportunities, reduction in salary and immigration laws.

Another major cause of return was reduction in salary. The employers in the Gulf countries have been following a policy of continuous reduction in the wage rate of emigrant workers. The excess supply of emigrant workers from different countries may be one of the reasons for the reduction in wage rates. Though the reduction of wage was effected earlier, it became more acute since 1996. The categories of workers who returned due to reduction in salary include those who worked more hours for the same wage rate, or experienced default in payment of their salary for the major part of the year or non-payment of salary.

Those who returned due to strict enforcement of immigration laws were persons without proper travel documents and those who lost their passports and other documents when they changed employers without permission. Fourteen per cent of the sample returnees returned due to sickness and other health problems. One per cent reported accidents and consequent unfitness to work as the reason for return. The causes mentioned under 'others' include age, family problems and aim to start a business back home.

In order to identify the relationship between year of return and the causes of return, we have provided a year-wise break up of the sample returnees. It is revealed that the sample returnees started returning since 1980. During the 1980s and the first half of the 1990s, the percentage of returnees who returned due to lack of job opportunities and salary cuts was lower. On the other hand, there has been a sharp increase in the return of emigrants due to the lack of job opportunities and reduction in salaries since 1996 (Table 5.18). A significant finding is that the percentage of people who returned due to health and other reasons was lower since 1996 compared to earlier periods.

Table 5.18
Causes for Return (Year-wise)

<i>Year of return</i>	<i>No job</i>	<i>Reduction in salary</i>	<i>Immigration laws</i>	<i>Health</i>	<i>Others</i>	<i>Total</i>
1980-90	3 (8.8)	3 (15.0)	—	3 (27.3)	4 (44.4)	13 (16.3)
1991-95	9 (26.5)	6 (30.0)	4 (66.7)	7 (63.6)	3 (33.3)	29 (36.2)
1996-99	22 (64.7)	11 (55.0)	2 (33.3)	1 (9.1)	2 (22.2)	38 (47.5)
Total	34 (100.0)	20 (100.0)	6 (100.0)	11 (100.0)	9 (100.0)	80 (100.0)

To understand the major causes of return between 1996 and 1999, we have provided a year-wise and cause-wise break-up of the sample returnees. The survey findings suggest that the reasons for return of all the sample returnees during 1996 from UAE, Oman, Saudi Arabia and Kuwait were lack of job opportunities, reduction in salary and immigration laws. During 1997, the percentage of returnees who returned due to no job, reduction in salary, or immigration laws was 83 per cent from these

countries. In the subsequent two years, 71 per cent and 92 per cent emigrants returned from these countries due to the above reasons.

In order to assess the future prospects of emigration to the Gulf countries, we have ascertained the views of sample returnees: those who returned till 1995 and those who returned after 1995. The majority of the sample returnees, who returned during the 1980s and the first and second halves of the 1990s, expressed the view that there are no future prospects for emigration to the Gulf. Eighty per cent of the returnees who returned from the UAE since 1996 were of the view that there are no future prospects for emigration to the Gulf. Seventy-five per cent of the sample returnees who returned from Oman also expressed the same view. The evidence presented above clearly indicates the gloomy prospects of future emigration to Gulf countries.

Current Status of Return Emigrants

The returnees have provided information about their current job status. We have used usual status definition to define employed and unemployed persons. According to usual status, an unemployed person is defined as one without any gainful employment during the major part of the year who is actively seeking a job or is available for work. The survey findings suggest that of the total sample returnees, 51 per cent were unemployed, 36 per cent were casually employed, and 13 per cent were self-employed (Table 5.19).

Table 5.19
Current Status of Returnees

<i>Year of return</i>	<i>Self-employed</i>	<i>Casually employed</i>	<i>Unemployed</i>	<i>Total</i>
Up to 1990	1 (7.7)	2 (15.4)	10 (76.9)	13 (100.0)
1991-95	3 (3.3)	11 (37.9)	15 (51.7)	29 (100.0)
1996-99	6 (15.8)	16 (42.1)	16 (42.1)	38 (100.0)
Total	10 (12.5)	29 (36.3)	41 (51.2)	80 (100.0)

A major economic consequence of return migration is the increase in unemployment. The returnees reported that the majority of them could not find any gainful employment in spite of their best efforts. The returnees who have returned since 1996 reported that they had to wait long periods to find some gainful employment. The average waiting period ranged between six months to one year. A general tendency noticed

among the returnees was that only those who were very poor with low educational levels were prepared to work as casual labourers. On the other hand, those who had some savings from emigration preferred to be self-employed. An age-wise distribution of the unemployed returnees revealed that nearly 29 per cent belonged to the age group between 25 and 44 years. More than one-third of the unemployed belonged to the age group of 45–49 years. This suggests that the unemployed are still in the working age group.

The survey revealed that the incidence of unemployment among the returnee households was very high. It estimated the unemployment rate in the returnee households at 55 per cent, indicating that the returnee households suffer severe unemployment. The work participation rate in the returnee households is also very low, at 15 per cent. This suggests that the share of economically active population is very low among the returnee households. The large-scale return of emigrants since 1996 has led to recession in the town resulting in the fall in employment opportunities.

The study revealed that nearly 36 per cent of the sample returnees were employed in casual activities. The persons who were engaged in casual employment were skilled construction workers like masons, painters, carpenters, electricians, salesmen, unskilled workers, etc. It may be noted that the majority of the persons engaged in casual employment are skilled construction workers.

Of the total returnees, nearly 13 per cent are self-employed. The persons who reported that they are self-employed are mainly engaged in small trading activities, having set up small shops selling provisional items, fancy articles, cycles, etc. A majority of them have used their own savings ranging from Rs 19,000 to more than Rs 1 lakh for starting the shops. Among the returnees, only a few (6 per cent) have deposited their savings in banks. The interest from the deposit is their principal source of income. The survey findings suggest that the returnees do not have much income from other sources; only 14 per cent of the returnees have meagre income from other sources like livestock and land.

Due to lack of employment and lack of income, a majority of the returnees reported that they were facing serious financial problems. The remittances received from the Gulf comprised their major source of income and they were in distress due to the stoppage of remittances. The survey findings suggest that 43 per cent of the returnee households were in distress and were forced to sell their properties. The magnitude of distress is evident from the distress sale of land and houses. Nine per cent of the returnees reported that they were forced to sell their houses due

to their return. Another 34 per cent sold their land due to distress. This suggests that the return has resulted in severe economic hardships to the migrant households.

Economic Consequences

In order to get an idea about the macro-economic changes due to the influx of returnees, we have collected information from travel agents, merchants associations, leading traders, banks, real estate agents and returnee associations in Varkala. The information suggests that there has been a continuous fall in remittances in Varkala since 1996. Some of the banks in Varkala reported that the fall in remittances was nearly 33–40 per cent between 1998 and 1999. The merchants associations and leading traders stated that Varkala has been experiencing a recession since 1996 and the indicator is the fall in the volume of trade; the trade of textile products registered a fall of 50 per cent since 1996. The fall in the sales of construction materials like cement, iron rods, sanitary items, electrical items, paints and flooring materials was about 40 per cent. The fall in the sales of provisional items and other consumer goods was reported to be 30 per cent. There has been no demand for new rooms to start shops in the town. The fall in trade is attributed to the decline in the purchasing power of the people due to the return of large numbers of emigrants.

The influx of returnees has resulted in a sharp fall in construction activities in the town. There has been a decline in the construction of houses and other category of buildings and in works involving land improvements. It is reported that work on many houses is left incomplete. Another consequence has been the fall in real estate prices. Prior to 1996, a lot of money was invested in land and real estate anticipating price increase. But since then, there has been a fall in the price of real estate. It is reported that the fall has been in the range of 40 to 50 per cent since 1996. This evidence suggests that the major cause for the economic recession in Varkala is the large-scale return of emigrants and the fall in remittances.

CONCLUSIONS

The analysis in this chapter may be concluded with the following observations. During the first half of the 1990s, there was a spurt in emigration to West Asian countries such as Saudi Arabia, the UAE, Bahrain, Kuwait, Oman and Qatar. The incidence of emigration was higher in the northern

districts of Kerala compared to the south. The incidence of emigration was fairly high in all the districts except Alappuzha, Kottayam, Idukki and Wayanad. During the late 1990s, Kerala received nearly Rs 12,600 crore annually as workers' remittances from the Gulf countries. The remittances equalled 22 per cent of Kerala's NSDP.

Due to changes in the immigration policies and changes in the expatriate labour market in the Gulf countries, there was an unprecedented exodus of emigrants from the Gulf countries between 1996 and 1998. Saudi Arabia and the UAE are the two countries from which large numbers of Keralite emigrants have returned since 1996. The change in immigration laws, imposition of stringent restrictions on emigrant labour, measures to send illegal emigrant workers back, discouragement of the emigration of unskilled workers, reduction in wage rates, curtailment of non-wage benefits, policies of emiratisation, etc., have led to the return of large numbers of emigrant workers since 1996.

Results of the sample survey conducted in Varkala also revealed that decline in job opportunities, reduction in wage rate, strict enforcement of immigration laws and increasing health problems are the major causes of return of the emigrants. The majority of the sample returnees were of the view that there are no future prospects of emigration to the Gulf, especially for unskilled and semi-skilled workers. Among the returnees, the majority are unemployed and face serious financial problems. The information collected from travel agents, merchants associations, traders, banks and returnee associations shows that Varkala has been experiencing a recession since 1996 due to large-scale return of emigrants.

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INTRODUCTION

Poverty is an age-old and worldwide phenomenon. It affects the quality of life of the people in the society in one form or the other. The development agendas of all developing countries lay emphasis on various strategies, which aim to eliminate or minimise poverty. However, the purpose cannot be easily completed because the controversies start from the very beginning of defining poverty.

THE CONCEPT: POVERTY

Poverty can be broadly defined as a socio-economic phenomenon in which a section of society is unable to fulfil even its basic necessities of life—food, shelter and clothing. The deprivation of a significant section of society of minimum basic needs in contrast to elite groups makes poverty more glaring. A family is considered to be below poverty line (BPL), if its total earnings are insufficient to obtain the minimum necessities for the maintenance of merely physical requirements. According to Leviton Sar (1997), poverty can be defined as the general lack of those goods and services believed necessary for an adequate standard of living. There are many more definitions of poverty.

For a common understanding, however, it is quite easy to view poverty in terms of absolute poverty and relative poverty. Absolute poverty of a person indicates that his income or consumption expenditure is so meagre that he lives below a minimum subsistence level. As a consequence, he is unable to maintain his health and efficiency and he may, virtually, be starving. On the other hand, relative poverty indicates inequalities in income. Those who have lower incomes are said to be relatively poor in comparison with those with higher incomes. Here, the income distribution

of population in different income brackets is estimated and the levels of living of the top 5–10 per cent are compared with those of the bottom 5–10 per cent to identify the relatively poor levels.

A few definitions mentioned above make it clear that poverty is a multidimensional issue and hence its measurement is complex. The extent of poverty in India has been estimated, at different periods, by various economists and organisations, Table 6.1 gives a gist of the various studies conducted by different scholars and the criteria fixed by them for the poverty line. The table reinforces the earlier claim that there are methodological differences in measuring poverty and enumerating the BPL population.

Table 6.1
Estimates of Poverty in India in Different Periods

<i>Person</i>	<i>Year</i>	<i>Criteria (monthly per capita expenditure)</i>
Minhas	1956–57	Rs 16.60 at 1960–61 prices
Bardhan	1960–61	Rs 15.00 at 1960–61 prices
Dande Karl Rath	1960–61	Rs 14.2 (rural); Rs 20.00 (urban) at 1960–61 prices
Ojha	1960–61	Rs 15–18 at 1960–61 prices
Ahluwalia	1963–64	Rs 15 (rural); Rs 20.00 (urban) at 1960–61 prices
DeCosta	1963–64	Up to Rs 15 (rural); up to Rs 24 (urban)
7th Finance Commission	1970–71	Augmented poverty line
Dandekar	1971–72	Rs 32.70 at 1971–72 prices
	1977–78	Rs 54.40 at 1977–78 prices
	1983–84	Rs 88.40 at 1983–84 prices
Sixth Five-Year Plan	1979–80	Rs 76 (rural); Rs 88 (urban) at 1979–80 prices
World Bank	1983	Rs 89 (rural); Rs 111.2 (urban) at current prices
	1988–93	Social indicators of development 1995
Seventh Five-Year Plan	1984–85	Rs 107 (rural); Rs 122 (urban)
Minhas and Tendulkar Planning Commission	1987–88	Rs 122.60 (rural); Rs 158.30 (urban)
Expert group	1987–88	Rs 115.43 (rural); Rs 165.58 (urban)
World Bank	1996	Rs 48 (rural); Rs 57 (urban) (1973–74)

Accepting the methodological differences and controversies, Tables 6.2 and 6.3 give the details of the number of poor and the poverty ratios in India.

Table 6.2
Estimates of Number of Poor (in millions)

<i>Year</i>	<i>Earlier methodology*</i>	<i>New methodology**</i>
1973-74	292.0 (51.50)	321.3 (54.90)
1977-78	307 (48.3)	328.9 (51.3)
1983	271.0 (37.4)	322.9 (44.5)
1987-88	201.4 (25.5)	307 (38.9)
1993-94	168.6 (19.0)	320.4 (36.0)

Source: Planning Commission, Government of India.

Notes: *As per methodology in existence before 1993.

**As per the methodology in vogue since 1993.

Figures in brackets represent the percentage of the total population.

Table 6.3
Estimates of Poverty Ratios

<i>Period</i>	<i>Rural</i>	<i>Urban</i>
1951	47.37	35.46
1961	45.40	44.65
1971	54.84	44.98
1983	45.31	35.65
1991	36.43	32.76
1992	43.47	33.73
1993-94	38.74	30.03

Source: Olzer et al., 1996.

It is evident that as per the earlier methodology, 57.50 per cent of the population was counted as poor in 1973-74, while the respective percentage following the new methodology is 54.90. However, the difference in the percentage of poor when we follow different methodologies prior to the 1983 estimate is marginal. However, since 1983, there are clear-cut differences mainly due to variances in approach. Estimates of poverty ratios give a clearer picture.

A microscopic look into the various studies and methodologies reveals the following:

1. For the same periods, different authors have used different levels of per capita consumption expenditure rates leading to varying reports on the percentage of poverty in India and, hence, a lack of consistency in poverty reporting.
2. There has been a general consensus that the percentage of BPL population has started declining as a consequence of the indirect benefit of higher growth rate and as a result of poverty alleviation programmes.
3. The absolute number of poor has increased over the years due to the fact that the majority in rural areas still continues to live on low productivity cum employment.
4. There has been marked fluctuation in the incidence of poverty from year to year.
5. Judging by reasonable standards, the extent of absolute poverty in rural India is alarmingly massive.
6. All these estimates are conditioned by the vision of minimum or average level of living, which reflects larger inequalities.

If these are the macro trends, state-specific details may reveal a more interesting picture.

From Table 6.4 it is evident that, according to 1993–94 estimates, the BPL population is maximum in Orissa followed by Madhya Pradesh and Assam. In terms of rural BPL population also, the trends are the same. As far as Kerala is concerned, the BPL population constitutes 25 per cent; it is also projected that the state will have BPL population to the tune of 4.76 per cent in 2006–07 and 1.38 per cent in 2011–12.

Table 6.4
Population below The Poverty Line, 1993–94

	<i>Percentage share</i>	<i>Rural</i>	<i>Project Poverty Ratio</i>	
			<i>2006–07</i>	<i>2011–12</i>
Andhra Pradesh	22.2	15.9	5.35	2.44
Assam	40.9	45.0	3.82	2.07
Bihar	55.0	58.2	14.08	6.52
Gujarat	24.2	22.2	3.94	1.28
Haryana	25.1	28.0	5.00	2.58
Himachal Pradesh	28.4	30.3	7.34	3.14

(*contd.*)

Table 6.4 (contd.)

	Percentage share	Rural	Project Poverty Ratio	
			2006–07	2011–12
Karnataka	33.2	29.9	8.68	3.45
Kerala	25.4	25.8	4.76	1.38
Madhya Pradesh	42.5	40.6	12.75	6.81
Maharashtra	36.9	37.9	11.41	5.43
Orissa	48.6	49.7	10.76	4.63
Punjab	11.8	12.0	0.85	0.05
Rajasthan	27.4	26.5	4.70	1.52
Tamil Nadu	35.0	32.5	8.96	3.59
Uttar Pradesh	40.9	42.3	12.88	6.92
West Bengal	35.7	40.8	6.26	2.86
All India	36.0	37.3	9.53	4.37

Source: Studies by National Council of Applied Economic Research, New Delhi.

KERALA'S ECONOMY: DEVELOPMENT PROFILE

Kerala, one of the smallest states in the country (1.3 per cent of India's geographical area), has to feed a population of 3.1 crore (3.6 per cent of India's population), which makes its development strategies complex. Table 6.5 explains the trends in the growth of Kerala's SDP (state domestic product) from 1960–61 onwards.

In 1960–61, the major share (56 per cent) of Kerala's SDP came from the primary sector, but it gradually came down in the subsequent decades and reached a mere 21.43 per cent in 2000–01. Similar trends are noticed in the contribution of the secondary and tertiary sectors as well. Compared to the primary and secondary sectors, the change is more visible and significant in the case of the tertiary sector. Over a period of 50 years, the

Table 6.5
Sector-wise Distribution of State Domestic Product

	Primary	Secondary	Tertiary	Total
1960–61 (1960–61 prices)	56.0	15.20	28.80	100.00
1970–71 (1970–71 prices)	49.40	16.30	34.20	100.00
1980–81 (1980–81 prices)	39.20	24.30	36.50	100.00
1994–95 (New series)	30.75	21.10	48.17	100.00
1997–98 (New series)	27.00	21.83	51.15	100.00
2000–01 (New series)	24.43	21.00	57.55	100.00

Source: Various issues of the *Economic Review* of the Government of Kerala.

share of this segment has increased from 28.8 per cent to 57.55 per cent. The notable increase in the share of the tertiary sector is a common phenomenon that occurred across the country. Another notable feature of the state is the existence of the much-debated 'Kerala model'—the coexistence of low per capita income and a high Human Development Index (HDI). There are many more interesting features of the Kerala model and all these peculiarities have made the state's development debate fruitful. In the rest of this chapter, an attempt is made to discuss the trends in rural and urban poverty in Kerala.

Table 6.6 presents the trends in Kerala's rural and urban poverty based on direct estimates from NSS data and Planning Commission methodology. As mentioned earlier, different experts give different estimates because of differences in methodology. Among the various studies, the most recent one is from Sundaram and Tendulkar (2003). In their paper on 'Poverty in India in the 1990s: An Analysis of Changes in 15 Major States' they have attempted to compare the trends in poverty in Kerala along with other states choosing some relevant parameters (Table 6.7).

Table 6.6
Trends in Poverty in Kerala: Derived from NSSO Data

	<i>Rural</i>		<i>Urban</i>	
	<i>Direct estimate from NSSO</i>	<i>Planning Commission</i>	<i>Direct estimate from NSSO</i>	<i>Planning Commission</i>
1960–61	68.4	68.2	64.0	63.9
1970–71	62.9	52.1	60.0	50.9
1983–84	51.0	26.1	28.1	30.1
1993–94	26.7	25.8	32.7	23.9
2006–07*	9.6	8.4	7.3	6.2

Sources: Dutta and Sharma, 2000; Government of India, 2002.

Note: *Project figures.

The earlier discussion and associated tables reveal that experts differ on the poverty line and poverty ratios and, hence, a set of consistent inferences are rarely derived. However, the broad trends of poverty estimates reveal the following.

1. There are several outliers of the Kerala model like tribals, fishermen, Scheduled Castes, traditional industries, workers, etc. They are very poor and deserve special attention.
2. The number of practically landless poor is very high in Kerala. Since land reforms were implemented over a generation ago, a good

Table 6.7
Trends in Poverty in Kerala: 1983, 1993–94, 1999–2000

<i>Parameters</i>	<i>1983</i>	<i>1993–94</i>	<i>1999–2000</i>
Head count ratio on uniform reference period (%) (rural)	47.18	304.09	–
Head count ratio on mixed reference period (%) (rural)	–	33.53	16.47
Poverty gap index on uniform reference period (%) (rural)	0.1301	0.0830	–
Poverty gap index on mixed reference period (%) (rural)	–	0.0771	0.0280
Head count ratio on uniform reference period (%) (urban)	47.78	27.90	–
Head count ratio on mixed reference period (%) (urban)	–	30.12	23.49
Poverty gap index on uniform reference period (%) (Urban)	0.1459	0.0669	–
Poverty gap index on mixed reference period (%) (urban)	–	0.0691	0.0493

Source: Sundaram and Tendulkar, 2003.

amount of land given to 3 lakh families have now been portioned or sold out and a large number of the poor have nothing more than the plots on which their houses stand. So the conventional strategy of improving land productivity would not be of much use.

3. The phenomenon of educated poor is very peculiar to Kerala. A large number of the poor have completed high school education and passed the school final examination. However, they are left out in the competitive job market. Further, most of them lack entrepreneurial talent. Poverty reduction is possible only if this group is made competent enough to become self-employed.
4. The decline in agricultural labour opportunities and in government job prospects has exacerbated the poverty situation.

As in the rest of the country, the quinquennial NSS data has been used to identify the extent of poverty in the state with respect to percentage of BPL people. Poverty ratio figures over a period of two decades show that Kerala has achieved the highest decline in poverty levels, next only to Punjab. Also its relative standing among the states has improved significantly to seventh position from a low 21st. The 1999–2000 data shows that Kerala's poverty is only 12.72 per cent against the all-India

figure of 26.30 per cent, thus improving its position to fifth among states allowing for the effects of a remittance economy.

The Human Poverty Index (HPI), using the United Nations Development Programme methodology, is 0.15 for Kerala as against 36.7 for the whole country. Similarly, the HDI for Kerala has been calculated as 0.628 whereas it is only 0.451 for the whole country. The HDI and HPI values for Kerala and some Asian countries make for an interesting comparison (Table 6.8).

Table 6.8
Human Development Index and Human Poverty Index Values
for Kerala and some Asian Countries

<i>Country</i>	<i>HDI (1995)</i>	<i>HPI (1996)</i>
Kerala	0.628	15.0
India	0.451	36.7
Sri Lanka	0.716	20.7
Thailand	0.838	11.7
Malaysia	0.834	–
Indonesia	0.679	20.8
China	0.650	17.5

Source: Government of Kerala, 2001.

BELOW POVERTY LINE SURVEYS

With the introduction of the strategies of direct attack on poverty and the Integrated Rural Development Programme (IRDP) in 1978, assessment of poverty at the local level was made mandatory.

Accordingly, pilot surveys were held; the first comprehensive survey was conducted in 1985 and the next in 1992. Though these surveys yielded a good volume of data, they were used only to identify people below the cut-off line fixed for poverty and suffer from the following defects:

1. The data was used to delineate the pattern of poverty in the state and draw policy conclusions.
2. The identification of schemes was not based on any assessment of the data collected but on consultation with the beneficiary.
3. The details of the data collected do not involve any transparency.
4. There were also complaints of political interference.

Considering the problem related to the selection of BPL people and also the criticism from different angles, in 1997, the Government of India revised the norms for BPL surveys based on the suggestion by an Expert Group appointed by the Ministry of Rural Development.

1. There was to be a census of every household with certain exclusion criteria determining elimination of above poverty line households.
2. The surveys were to rely on expenditure in the previous 30 days on the pattern of NSS assessment.

The survey conducted in 1997 broadly reveals the following:

1. The percentage of poverty is 36.58;
2. Agriculture labourers constitute the largest single occupational group among the poor families;
3. Nearly 20 per cent of the BPL families are headed by women;
4. Only 40 per cent of the BPL families have *pucca* houses;
5. More than half the BPL families have an annual income of Rs 10,000;
6. There are 7.65 lakh illiterates among the poor;
7. There are 1.28 lakh landless families;
8. There are 8.05 lakh families without access to sanitary latrines.

INNOVATIVE INITIATIVES FOR POVERTY MEASUREMENT: THE ALLEPPEY EXPERIENCE

In the early 1990s, a breakthrough was made in the assessment of poverty in a pilot project on the Urban Basic Services Programme in Alleppey town with the support of the United Nation's Children's Fund. It was felt that the conventional head count system was outdated and the preparation of a transparent index based on well-defined features of poverty would be more acceptable. A survey of 5,728 families was conducted in seven wards of Alleppey. The analysis led to the development of some criteria for identifying the most vulnerable families who were classified as risk families. These criteria include the following:

1. *Kutcha* house;
2. No access to safe drinking water;
3. No access to sanitary latrine;
4. Illiterate adult in the family;
5. Family with not more than one earning member;

6. Family getting barely two meals a day or less;
7. Presence of children aged under years in the family;
8. Alcoholic or drug addict in the family;
9. Scheduled Caste or Scheduled Tribe family.

A family displaying four or more of the risk factors was classified as high-risk poor. The risk index proved to be pathbreaking in respect of the following:

1. The factors were simple enough for the community to understand;
2. It helped minimise the patronage and partisanship in the identification of the poor;
3. The presence of various factors helped in a holistic understanding of poverty compared to earlier indices;
4. The capturing of multiple factors provided an indication of the activities needed to be included in anti-poverty programmes.

The Alleppey model was later tried out in all the urban local bodies and was introduced in Malappuram in 1995. It helps identify the key factors that reflect poverty and assign weightages for sub-criteria within a factor.

TRENDS IN RURAL AND URBAN POVERTY IN KERALA

It may be noted that the head count ratios (HCRs) were invariably higher in the state than at the national level up to 1972–73, both in rural and urban areas. While the rural HCR at the national level declined from 56.9 per cent in 1960–61 to 47.8 per cent in 1970–71 (although with a couple of random variations), the corresponding ratio for Kerala declined from 68.2 to 52.1 per cent during this period, with significant rises in 1965–66 (72.6 per cent) and 1966–67 (68.8 per cent). However, in 1973–74, the poverty ratio in the state came down significantly and equalled the HCR at the national level (47.6 per cent). After that, the poverty ratio in the state witnessed an unprecedented fall to 16.4 per cent in 1987–88, which was even less than half the HCR at the national level.

The same pattern holds good in the case of urban poverty as well. Urban poverty was significantly higher in the state during the entire period of 1960–61 to 1983–84, although it failed to reflect any clear trend. It initially rose from 55.7 to 73.3 per cent during 1961–62 through 1965–66, but steadily declined thereafter to 30.1 per cent in 1983–84.

The Ahluwalia-Bhattacharya series also show that HCRs were invariably higher in Kerala than at the national level during the two decades from 1957–58 to 1977–78. The ratio was lower in Kerala only during 1983–84. The data, however, failed to exhibit any clear trend.

A third series of HCRs may be derived from the estimates of computed directly from the unadjusted private consumer expenditure data. As in the case of official estimates, the HCRs in the state were higher than the national averages from 1960–61 to 1972–73. However, the unprecedented fall in official estimates for Kerala since 1973–74 is not supported by direct estimates from NSS data.

At the same time, it is notable that in spite of marked variations in the incidence of poverty, the estimates of the NSS and the Planning Commission show uniform ranking for Kerala up to 1969–70 and closely comparable ranking up to 1973–74. Kerala ranked first in the incidence of rural poverty during the period.

ALTERNATIVE ESTIMATES

Apart from the three time series estimates of rural poverty already mentioned, there are certain other estimates available for selected years, which are also useful to understand the general pattern of movement in rural poverty in the state over time; however, the concepts and methodology underlying each of them are not essentially comparable. Of the seven such estimates, the highest incidence (90.75 per cent) was shown by Dandekar and Rath (1971). In 1960–61 also, urban poverty was highest in Kerala. But there was improvement in ranking according to NSS estimates during the period 1970–71 to 1973–74. Nevertheless, the remarkable improvement in Kerala's ranking according to the Planning Commission's estimate since 1973–74 is not supported by NSS data.

The Planning Commission has not offered any specific reasons for the unprecedented decline in poverty in Kerala from 47.4 per cent in 1977–78 to 16.4 per cent in 1987–88. This can probably be attributed to two sets of factors: (a) substantial flow of private foreign remittances during the period and (b) generation of adequate supplementary income to a large number of households through poverty alleviation and national employment programmes. The all-India position in 1983 and 1987–88 is in contrast to the very low level of poverty projected by the official estimates. It is thus clear that the phenomenal reduction in official poverty estimation was the direct outcome of the Planning Commission's questionable procedure of upward adjustment of NSS consumer expenditure of all

classes on a pro-rata basis to make it consistent with the Central Statistical Organisation (CSO) aggregate private consumption estimate. The revised estimate of the Planning Commission showed HCRs of 33.9 and 24.4 for Kerala in 1983 and 1987–88 in contrast to 43.8 and 37.6, respectively, at the national level.

Sen's Indices

As the Sen's indices computed by Ahluwalia and Bhattacharya are almost identical for different years, they can together be considered as a consistent series covering the period 1957–58 to 1983. It is significant to note that Sen's indices were significantly higher in Kerala till 1977–78 than the corresponding indices at the all-India level, implying a greater degree of poverty and inequality in the state. While the index for Kerala declined from 0.29 in 1957–58 to 0.21 in 1961–62, it rose to a peak level of 0.34 in 1965–66. It moved around 0.30 till 1970–71 and later declined to an all-time low of 0.08 in 1983.

On the other hand, the index declined from 0.22 in 1957–58 to 0.14 in 1961–62 at the national level, but rose to 0.24 in 1966–67. Thereafter, it declined steadily to 0.11 in 1983. The mean indices for Kerala and India were 0.25 and 0.18 respectively. Because of the significant fall in Sen's Index since 1970–71, the coefficient of variation was higher in the state (26.78 per cent) compared to the all-India average (20.16 per cent). The compound annual rate of decline was also higher in Kerala (0.037 per cent) than at the national level (0.004).

Inequalities

Even though Sen's Index reflects inequality along with poverty, it is not a measure of inequality per se. A better picture of inequality can be obtained by examining the Lorenz ratios (LRs), or specific concentration ratios (SCRs), fractile shares, and fractile-specific Engel shares.

A significant finding is that LRs of per capita consumer expenditure in Kerala were greater than the corresponding SCRs at the national level, during the period 1957–58 to 1983 with the sole exception of 1965–66. The SCR for total consumer expenditure declined from 0.334 in 1957–58 to 0.276 in 1973–74, but it went up to 0.336 in 1977–78. At the same time, the corresponding LR for the state showed a decline from 0.345 in 1957–58 to an all-time low of 0.295 in 1965–66, which rose to 0.330 in 1983, although there were wide random variations in 1968–69 (0.413) and 1977–78 (0.353).

Engel Ratios

It is generally recognised that the Engel Ratio (ER) is a good indicator of the relative incidence of poverty in a society. A higher ER reflects higher incidence of poverty and vice versa.

The ER of the bottom 20 per cent at current prices rose from 74.2 per cent in 1957–58 to 76.6 per cent in 1959–60 and moved around this level till 1973–74. Since then, it slipped to a lower plateau of approximately 73.5 per cent. The periodic fluctuations in the level of living and poverty implicit in inter-temporal variations in ERs can be seen clearly in terms of fluctuations in average per capita expenditure on food at constant prices (1960–61), which deteriorated since 1963–64. The 1959–60 level could be crossed only in 1977–78. The ERs for the bottom 50 per cent also reflected a more or less similar pattern though the food share ratios were slightly lower, as they should be. The ERs for the general population were significantly lower than this.

High Poverty PQLI Paradox

While Dandekar and Rath ranked Kerala as the state with the highest incidence of poverty in 1960–61, the physical quality of life index (PQLI) estimated by Morris and McAlpin for the same period happens to be highest in Kerala (70) against 43 for India.

Apparently, this paradox is attributed to the unique development experience of Kerala with heavy emphasis on the expansion of education and health, even at the cost of agricultural and industrial progress. The remarkable improvement in quality of life in spite of low per capita income and high incidence of poverty seemed to be far from convincing. For example, citing the sharp decline in general fertility rate in Kerala from 182 in 1961 to 125 in 1971, Wolf Scott, concluded that 'a decline of this magnitude is not normally associated with universal poverty'.

The Kerala model came to be characterised as a cheap 'miracle' model of development, which could be emulated by other developing countries without going for massive foreign assistance. The unique feature of the model is that it is free from heavy investments in agriculture and industries.

At the outset, three broad sets of factors can be identified as plausible explanations for this complex and apparently deceptive phenomenon.

1. The first relates to the concept and methodology employed by the Planning Commission for poverty measurement.

2. Second, although levels of living and quality of life are closely inter-related, they are altogether different concepts.
3. The exclusion of consumption of public goods, merit goods and community services that are provided free or at subsidised costs leads to overestimation of poverty.

Regarding the concepts and methodology for poverty measurement, there are three sets of problems associated with the Planning Commission's poverty estimates in India.

1. The Planning Commission adopts a fixed expenditure model, which fails to consider temporal variations in consumer preferences as well as the changing composition of the consumption basket.
2. The pro-rata upward revision of NSS per capita consumer expenditure to make it consistent with CSO aggregate private consumption estimates is also problematic.
3. The use of uniform all-India PQLI, in spite of wide differences in demographic and activity compositions, consumer preferences, composition of cereal basket, relative prices, and temperature and climatic factors is also problematic.

CONCLUSION

From the discussion in this chapter, it is evident that the concept of poverty and the estimation of the poverty line are complex issues; differences in methodology lead to different estimates. Viewing from different angles, it may be inferred that Kerala leads among Indian states with lower rural and urban poverty. Trends in recent years further indicate that the number of BPL people will be substantially reduced in the coming years. The decentralisation process under way in the state will definitely add momentum to these efforts. The only prerequisites are the need to formulate appropriate strategies at the grass-roots level and the commitment and political will to implement it.

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III

AGRICULTURE

INTRODUCTION

After a decade of retarded growth performance, the agricultural sector in Kerala showed positive signs of revival during the latter half of the 1980s. However, this phase of recovery lasted only a few years and since the early 1990s, the state has once again plunged into a state of agricultural stagnation. The major objectives of this chapter are to examine the salient features in the pattern of the state's agricultural development and to highlight the major factors that impair the growth performance of this sector during the period 1990–91 to 2001–02.

This chapter is divided into four sections. In the first section, a review of the overall performance of the state's agricultural sector since the beginning of the 1990s is given. Changes in the relative share of agricultural income in the Net State Domestic Product (NSDP), changes in land-use pattern, cropping pattern changes and growth trends in area, and production and productivity of major crops are taken as the indicators of performance. In the second section, an attempt is made to identify the causes for cropping pattern changes and to examine the roles of High-Yielding Varieties (HYVs), chemical fertilisers, rainfall and irrigation in enhancing crop productivity. Trends in the farm prices of major crops in the state since the introduction of the New Economic Policy (NEP) are analysed in the third section and current problems like the declining profitability of crops, uneconomic size of operational holdings and increasing conversion of agricultural lands for non-agricultural purposes are taken up in the fourth section. Growth rates are estimated from time series data using the semi-log linear curve, $\text{Ln}Y = a + bt$ where 'b' is the growth rate for the period 't'.

Review of Agricultural Performance*Share of Agricultural Production Sector in State Domestic Product*

In spite of considerable annual variations, Kerala's NSDP showed positive annual growth rates throughout the 1990s and the early years of this

century. However, the growth performance of the primary sector in general and that of the agricultural sector in particular has been quite disappointing since the second half of the 1990s. Even though the National Agricultural Policy of 2000 envisages an annual average growth rate of more than 4 per cent, the realised annual rate of growth in the state's agricultural sector during the four years from 1998–99 to 2001–02 was around 1.75 per cent. Annual growth rates of income from primary sector in Kerala during the period 1993–94 to 2001–02 are given in Table 7.1.

Table 7.1
Annual Growth Rates in Income from the Primary Sector,
1993–94 to 2001–02

Year	<i>Annual Growth Rates (%)</i>					
	<i>Agri- culture</i>	<i>Forestry and logging</i>	<i>Fishing</i>	<i>Mining and quarrying</i>	<i>Primary sector</i>	<i>Net state domestic product</i>
1993–94	–	–	–	–	–	–
1994–95	10.25	9.50	6.88	–18.88	9.70	8.62
1995–96	0.72	–11.97	–12.41	41.93	–1.37	4.01
1996–97	2.42	4.16	10.44	–12.48	3.04	8.18
1997–98	–4.75	–2.90	–19.07	10.94	–5.60	2.16
1998–99	1.81	4.42	7.31	16.43	2.51	7.02
1999–2000	1.70	7.13	8.67	4.00	2.59	6.76
2000–01	1.76	5.18	7.99	10.22	2.60	5.30
2001–02	1.73	5.56	8.33	7.10	2.65	4.73

Source: State Planning Board, 2003, 2001.

The primary sector accounted for 35.94 per cent of the NSDP in 1990–91 (at 1980–81 prices) but its share declined to 24.84 per cent by 2001–02 (at 1993–94 prices). From 1993–94 to 2001–02, it increased at an annual rate of 4.98 per cent but the growth rate in the primary sector, which is found to be 1.22 per cent is relatively much lower (Table 7.2). Currently, the agricultural production sector contributes more than 80 per cent of the NSDP generated within the primary sector but the annual growth rate of this sector, which is estimated as 1.15 per cent, is marginally lower than that of the primary sector taken as a whole. Among the other constituents of the primary sector, only mining and quarrying have shown an impressive growth rate of 7.14 per cent while the performance of the fishing sector has been dismal.

Table 7.2
Structural Change in Income from the Primary Sector at 1993–94 Prices

<i>Industry of origin</i>	<i>Income</i>		<i>Percentage of Net State Domestic Product</i>		<i>Growth rate (%)</i>
	<i>(Rs million)</i>		<i>Domestic Product</i>		
	<i>1993–94</i>	<i>2001–02</i>	<i>1993–94</i>	<i>2001–02</i>	
Agriculture	6,25,603	7,26,373	26.23	20.13	1.15
Forestry and logging	74,340	89,024	3.12	2.47	1.78
Fishing	63,849	72,882	2.68	2.02	0.71
Mining and quarrying	5,010	8,005	0.21	0.22	7.14
Primary sector	7,68,802	8,96,284	32.23	24.84	1.22
Net State Domestic Product	23,85,107	36,07,975	100.00	100.00	4.98

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2003.

Land-use Pattern

Kerala has a total geographical area of 3,885,000 ha, of which 1,082,000 ha (27.85 per cent) are under forests. Unlike most other states in the country, only a very small portion of Kerala's area is kept as permanent pastures. Substantial changes are not observed in the total cropped area (TCA) and the net area sown in the state during the period 1990–91 to 2001–02. However, during this period, the proportion of land put to non-agricultural use increased from 7.65 to 10.10 per cent showing an overall increase of 32 per cent and an annual growth rate of 2.34 per cent (Table 7.3). Meanwhile, current fallow and fallow other than current fallow increased at the annual rates of 6.18 and 2.46 per cent, respectively. A more disturbing phenomenon to be noted in this regard is the fact that compared to the first half of the 1990s, land put to non-agricultural use and current fallow have shown relatively higher annual growth rates since 1996–97.

Changes in Cropping Pattern

The diverse topographic, climatic and soil-related conditions of Kerala enable its people to cultivate a wide variety of seasonal and perennial crops. Currently, more than 80 per cent of the TCA in the state is used for the cultivation of 11 major crops: coconut, rice, rubber, tapioca, pepper, cashew nut, coffee, banana and other plantains, areca nut, cardamom and tea.

Table 7.3
Land-use Patterns in Kerala, 1990–91 to 2001
(area in thousand of hectares)

<i>Classification of Land</i>	<i>Year</i>				<i>Growth rates</i>
	<i>1990–91</i>	<i>1994–95</i>	<i>1998–99</i>	<i>2001–02</i>	
Total geographical area	3,885 (100.00)	3,885 (100.00)	3,885 (100.00)	3,885 (100.00)	0.00
Forests	1,082 (27.85)	1,082 (27.85)	1,082 (27.85)	1,082 (27.85)	0.00
Land put to non-agricultural use	297 (7.65)	3,232 (8.31)	334 (8.59)	392 (10.10)	2.34
Barren and uncultivated land	58 (1.49)	48 (1.25)	28 (0.73)	30 (0.77)	-7.43
Permanent pastures	2 (0.05)	1.5 (0.04)	0.7 (0.02)	0.2 (0.01)	-22.38
Land under miscellaneous crops	34 (0.89)	32 (0.83)	20 (0.52)	14 (0.35)	-8.94
Cultivated waste	95 (2.43)	82 (2.12)	63 (1.61)	64 (1.64)	-4.96
Fallow other than current fallow	25 (0.68)	29 (0.75)	32 (0.81)	34 (0.88)	2.46
Current fallow	44 (1.14)	48 (1.23)	68 (1.75)	79 (2.04)	6.18
Net area sown	2,247 (57.83)	2,239 (57.64)	2,259 (58.13)	2,191 (56.38)	-0.14
Area sown more than once	796 (19.90)	809 (20.82)	658 (16.93)	802 (20.63)	-0.44
Total cropped area	3,043 (77.72)	3,048 (78.45)	2,917 (75.06)	2,992 (77.01)	-0.21
Cropping intensities	135.44	136.20	129.12	137.00	-0.06

Source: State Planning Board, 2001, 2003.

Note: Percentages to the total cropped area are given in parentheses.

An analysis of the changes in the cropping pattern of the state since its formation in 1956 clearly shows that there has been a persistent shift in favour of garden crops and plantation crops at the expense of food crops.¹

During the period 1990–91 to 2001–02, the proportion of area under rice, which is the predominant food crop in the state, declined from 18.38 to 10.77 per cent showing an overall decrease of 42.38 per cent and an annual growth rate of -5.51 per cent (Table 7.4). Meanwhile, the proportion of area under coconut, which is often considered the principal

Table 7.4
Area under Major Crops in Kerala, 1990–91 to 2001–02
(area in thousand of hectares)

<i>Crops</i>	<i>Year</i>				<i>Growth rates in area</i>
	<i>1990–91</i>	<i>1994–95</i>	<i>1998–99</i>	<i>2001–02</i>	
Coconut	870.02 (28.59)	900.72 (29.55)	882.29 (30.25)	905.72 (30.27)	0.48
Rice	559.45 (18.38)	503.29 (16.51)	352.63 (12.09)	322.37 (10.77)	-5.51
Rubber	384.00 (12.62)	443.30 (14.54)	469.92 (16.11)	475.04 (15.88)	1.58
Tapioca	146.49 (4.81)	130.11 (4.27)	112.77 (3.87)	111.19 (3.72)	-4.16
Pepper	168.51 (5.54)	188.69 (6.19)	182.38 (6.25)	203.96 (6.82)	1.39
Cashew nut	115.62 (3.80)	105.68 (3.47)	91.29 (3.13)	89.72 (3.00)	-2.55
Coffee	75.06 (2.47)	82.35 (2.70)	83.68 (2.87)	84.80 (2.83)	0.58
Banana and other plantains	65.64 (2.16)	72.43 (2.38)	81.47 (2.79)	106.05 (3.54)	4.04
Areca nut	64.82 (2.13)	69.05 (2.27)	73.64 (2.52)	93.19 (3.11)	3.21
Cardamom	66.89 (2.20)	43.32 (1.42)	41.45 (1.42)	41.34 (1.38)	-2.10
Tea	34.71 (1.14)	34.66 (1.14)	36.83 (1.26)	36.90 (1.23)	0.63
Total	2,551.21 (83.84)	2,573.60 (84.44)	2,408.35 (82.56)	2,470.28 (82.56)	-0.42

Source: State Planning Board, 2001, 2003.

Note: Percentage total cropped area is given in parentheses.

competitor of rice, increased from 28.59 per cent to 30.27 per cent, showing a meagre annual growth rate of 0.48 per cent. However, the area under areca nut has shown a moderate growth rate of 3.21 per cent during this period. Another group of crop that has shown positive growth trends in the area is of banana and other plantains, the area under which has increased by over 60 per cent within the last 12 years. Most of the rice cultivating areas in the state—except the low-lying lands—can be easily converted for the cultivation of areca nut and banana. Hence, it can be reasonably asserted that in recent years a sizeable portion of Kerala's rice

fields are being converted for the cultivation of these two crops. During the 1990s, the area under tapioca, which is the second largest food crop in the state, also declined drastically. Among the garden crops, the area under cashew nut has shown declining tendency during this period.

The percentage share of the area under rubber amounted to 12.62 per cent of the TCA in the state in 1990–91. Between 1990–91 and 2001–02, the area under this crop rose from 3.84 lakh to 4.73 lakh ha, registering an aggregate increase of 23.18 per cent and an annual growth rate of 1.58 per cent. Compared to this, the annual growth rates in the area under coffee (0.58 per cent) and tea (0.63 per cent) are relatively lower. Meanwhile, the proportion of area under cardamom declined from 2.20 to 1.38 per cent at the annual rate of –2.10 per cent. Thus, the area under all the major plantation crops in Kerala, except cardamom, has shown positive growth trends since the early 1990s.

Production and Productivity of Crops

Food Crops

Rice accounts for nearly 95 per cent of the total food grains produced within Kerala. Due to climatic and other exogenous factors, wide temporal and spatial variations can be observed in rice productivity during the period 1990–91 to 2001–02. In spite of it, the per hectare yield of rice has shown positive growth trends in this period and the annual growth rate is estimated as 1.86 per cent (Table 7.5). However, the production

Table 7.5
Production and Productivity of Major Food Crops, 1990–91 to 2001–02

<i>Year</i>	<i>Production (in thousand tonnes)</i>			<i>Productivity (kg per hectare)</i>		
	<i>Rice</i>	<i>Tapioca</i>	<i>Banana and other plantains</i>	<i>Rice</i>	<i>Tapioca</i>	<i>Banana and other plantains</i>
1990–91	1,086.58	2,803.00	491.94	1,943	19,134	7,495
1994–95	978.07	2,578.89	574.26	1,937	19,821	7,909
1998–99	726.74	2,630.16	784.57	2,061	23,322	9,630
2001–02	703.50	2,455.88	769.09	2,182	22,087	7,252
Growth rate	–3.68	–0.58	4.99	1.86	1.93	0.81

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

of rice, which stood at 10.87 lakh tonnes in 1990–91 decreased to 7.04 lakh tonnes by 2001–02, showing a negative annual growth rate of –3.68 per cent. A similar growth pattern is discernible in the performance of tapioca. Thus, the dismal performance of the two major food crops in production was exclusively due to the sharp decline in the area dedicated to them. During this period, the annual production of banana and other plantains rose from 4.92 to 7.69 lakh tonnes at the annual rate of 4.99 per cent; their productivity also shows positive growth trends.

Garden Crops

Compared to the earlier decade, the performance of garden crops in production and productivity has been generally poor since the beginning of the 1990s. From 1990–91 to 2001–02, among the three major garden crops—coconut, cashew nut and pepper—the production and productivity of cashew nut showed unprecedented negative growth trends. During this period, cashew nut production declined from 1.03 to 0.66 lakh tonnes showing an aggregate decrease of 35.91 per cent and an annual growth rate of –5.46 per cent (Table 7.6). The state witnessed a sharp decline in the productivity of coconut during the early 1970s; this is often considered as the prime cause for the agricultural stagnation, which lasted for a decade beginning 1974–75 (Pillai, 1994). However, since the early 1980s, the crop showed clear signs of recovery, both in terms of production and productivity. Within a period of 12 years from 1990–91 to 2001–02, the production and productivity of coconut increased at the annual rates of 1.76 and 1.34 per cent, respectively. Meanwhile, pepper production

Table 7.6

Production and Productivity of Major Garden Crops, 1990–91 to 2001–02

Year	Production (in thousand tonnes)			Productivity (kg per hectare)		
	Coconut (million nuts)	Cashew nut	Pepper	Coconut (nuts per hectare)	Cashew nut	Pepper
1990–91	4,232	102.77	46.80	4,864	888	278
1994–95	5,336	95.55	59.26	5,858	823	317
1998–98	5,132	51.34	68.51	5,817	562	376
2001–02	5,479	65.87	58.24	6,049	734	286
Growth rate	1.76	–5.46	1.56	1.34	–3.03	0.32

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

increased at a moderate rate of 1.34 per cent, mainly due to an increase in the area under the crop.

Plantation Crops

Kerala accounts for 92 per cent of the total production of rubber, 74 per cent of cardamom, 22 per cent of coffee and 8 per cent of tea in the country (State Planning Board, 2003). All the plantation crops raised in the state, with the possible exception of tea, have shown impressive positive growth trends in production and productivity during the period 1990–91 to 2001–02 (Table 7.7). Among them, the growth performance of cardamom has been particularly spectacular. In spite of the decrease in its area, cardamom production has also displayed a laudable annual growth rate of 8.46 per cent. Meanwhile, the production and productivity of coffee have also increased at the annual rates of 6.81 per cent and 5.97 per cent, respectively. During this period, the production of natural rubber in the state has increased at the rate of 5.96 per cent while its productivity shows a relatively lower growth rate of 4.48 per cent. Again, compared to the earlier years, annual growth rates in its production and productivity have decelerated since the late 1990s. The per hectare yield of tea has remained more or less stagnant even though its annual production has increased at the rate of 1.19 per cent.

Table 7.7
Production and Productivity of Plantation Crops, 1990–91 to 2001–02

Year	<i>Production</i> <i>(in thousand tonnes)</i>				<i>Productivity</i> <i>(kg per hectare)</i>			
	<i>Rubber</i>	<i>Tea</i>	<i>Coffee</i>	<i>Card- amom</i>	<i>Rubber</i>	<i>Tea</i>	<i>Coffee</i>	<i>Card- amom</i>
	1990–91	307.52	60.64	35.70	3.45	800	1,827	475
1994–95	442.83	60.72	46.24	4.72	999	1,859	589	102
1998–99	559.10	68.37	61.15	4.99	1,190	1,857	731	120
2001–02	580.35	66.09	66.69	8.38	1,222	1,791	786	203
Growth rate	5.96	1.19	6.81	8.46	4.48	0.05	5.97	10.74

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

FACTORS AFFECTING AGRICULTURAL PERFORMANCE

The overall performance of the agricultural crop sector is influenced by the reallocation of the area under different crops and crop productivity.

In this section, we examine the major factors responsible for changes in the cropping pattern and some of the factors affecting Kerala's agricultural productivity.

Causes for Cropping Pattern Changes

As rational producers, area allocation decisions of farmers are always influenced by the relative profitability of various crops that can be cultivated in their fields. Profitability, in turn, is a function of cultivation costs, per hectare crop productivity and farm prices of agricultural products. Prior to the implementation of the NEP at the national level, the successful operation of the public distribution system in the state has acted as a price stabilising factor for food articles and, thereby, has curbed the rate of increase in food grain prices in Kerala. Therefore, the shift in the state's cropping pattern—in favour of garden and plantation crops—has been primarily attributed to the growth rate differentials in the farm prices of different crop categories. However, from the beginning of the 1990s, average farm prices of food crops have shown higher growth rates compared to cash crops like coconut, pepper, areca nut, ginger and rubber. This suggests the presence of certain non-price factors that influence cropping pattern changes in the state.

The shortage of farm labourers and the rapid increase in their wages induce farmers to convert their lands from the cultivation of highly labour-intensive food crops to commercial crops for which per hectare labour requirements are relatively lower. During the period from 1990–91 to 2001–02, the average daily wages of male and female labourers in the state increased by 257 and 320 per cent respectively. Meanwhile, the overall increase in the farm prices of paddy and tapioca were only 95 and 112 per cent respectively.²

Again, in Kerala, the price of land under food crops like paddy and tapioca is relatively lower than that of land under commercial crops. The Department of Economics and Statistics estimated the per hectare average price of paddy fields in Kerala during 1989–90 at Rs 100,190 while for coconut groves it was as high as Rs 381,980 (Government of Kerala, 1991). Thus, the mere conversion of food crops to cash crops enhances the property value of farmers more than three-fold. Moreover, the comparatively lower prices of land under food crops leads to its widespread conversion for non-agricultural uses. Land put to non-agricultural use in the state has increased at the annual rate of 4.67 per cent during the period 1996–97 to 2001–02 and it can be reasonably asserted that a major part of it was previously used for the cultivation of food crops.

Another factor that favours a shift towards commercial crops is the frequency of yields. From the cultivation of paddy, farmers get income one to three times in a year depending on the number of times their fields are sown. Annual food crops like banana and tapioca yield income only once a year. On the other hand, perennial crops like coconut, areca nut, cocoa and rubber provide income to the cultivators at much more frequent regular intervals for a long period.

Changes in cropping pattern can also be attributed to the growing number of absentee landowners in the state. Currently, the secondary and tertiary sectors of the state economy, taken together, account for nearly three-fourths of the NSDP and absorbs the lion's share of the workforce.³ A sizeable proportion of the labourers employed in these two sectors and a vast majority of emigrant labourers from the state are absentee landowners. Since food crops need more care and personal supervision than cash crops, absentee landowners are more inclined to the cultivation of the latter, which leads to a decline of area under food crops.

Even though, in the conversion of crops, farmers are following the rational course of profit maximisation and convenience, the alarming rate at which the area under food crops is being converted for the cultivation of cash crops deserves serious concern in a food-deficient state like Kerala. Hence, it is imperative to take correct policy measures to prevent further conversion of paddy fields.

Factors Affecting Crop Productivity

The ever-growing population pressure coupled with the expansion of the secondary and tertiary sectors of the state economy during the last several years has led to a spurt in demand for land for non-agricultural purposes. Since the early 1980s, the proportion of net area sown in the state has begun to show negative growth trends. Hence the future development of the state's agricultural sector is closely related to the success of improving crop productivity. Major factors affecting crop productivity are the adoption of HYVs, use of fertilisers, annual rainfall and irrigation.

High Yielding Varieties

The introduction of HYVs in India as an integral part of the New Agricultural Strategy of the mid-1960s did not make much impact in the agricultural crop sector of Kerala till the early 1970s. Its introduction in the state was confined to a single crop—paddy. The proportion of HYV rice to the total area under the crop in the state went up to 35.57 per cent

by 1979–80 but the first half of the 1980s witnessed a drastic decline in HYV coverage. From 1990–91 onwards, the percentage coverage of HYV rice in Kerala picked up momentum and, by 2001–02, it had reached 68.89 per cent. The HYV coverage and rice productivity in the state during the period from 1990–91 to 2001–02 are given in Table 7.8.

As Table 7.8 shows, the proportion of area under HYV rice in Kerala increased at a moderate growth rate of 3.70 per cent during the period 1990–91 to 1995–96 but during the period 1996–97 to 2001–02, the annual growth rate has been as high as 13.42 per cent. The productivity of rice in the state also shows a relatively lower growth rate of 0.42 per cent during the first period compared to the much higher growth rate of 2.05 per cent during the second period. On an average, the productivity of HYVs has been 17.35 times higher than that of the local variety during the period 1990–91 to 2000–01.⁴ However, the role of HYVs in enhancing rice productivity should not be overemphasised because, in spite of considerable increase in HYV coverage, rice productivity declined during the years 1993–94, 1994–95, 1996–97, 1997–98 and 2000–01.

Use of Chemical Fertilisers

Within a period of 30 years from 1960–61, per hectare use of chemical fertilisers (N + P + K) in Kerala increased from the meagre level of 5.10

Table 7.8
High-Yielding Variety Coverage and Productivity of
Rice in Kerala, 1990–91 to 2001–02

	<i>Year</i>				<i>Growth rates</i>		
	<i>1990–91</i>	<i>1995–96</i>	<i>1996–97</i>	<i>2001–02</i>	<i>1990–91 to 1995–96</i>	<i>1996–97 to 2001–02</i>	<i>1990–91 to 2001–02</i>
Area under HYV (high-yielding variety) rice (thousand hectares)	162.82	163.88	153.33	222.09	0.88	8.33	2.62
Percentage of HYV	29.10	34.78	35.59	68.89	3.70	13.42	8.12
Productivity (kg per hectare)	1,943	2,023	2,022	2,182	0.42	2.05	1.86

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

to 80.92 kg showing a nearly 16-fold aggregate increase and an annual compound growth rate of 9.96 per cent. However, since 1990–91, it has shown declining growth trends. The total quantity of chemical fertilisers used in the state decreased from 244,380 tonnes in 1990–91 to 177,130 tonnes by 2001–02 and its per hectare use declined from 80.92 to 59.19 kg (Table 7.9). Annual growth rates in fertiliser consumption and its per hectare use during this period are estimated at –1.86 per cent and –1.39 per cent respectively. It is interesting to note that in spite of the negative growth rates in the application of chemical fertilisers, the index of crop productivity has shown positive growth trends.⁵ However, it does not imply that the use of chemical fertilisers is, in any way, inversely related to crop productivity; it only shows that the latter is more influenced by certain exogenous factors like the incidence of plant diseases and the extent and spread of rainfall.

Table 7.9
Fertiliser Use and Index of Crop Productivity in Kerala,
1990–91 to 2001–02

Year	Per hectare use (kg)	Total use (in thousand tonnes)	Index of crop productivity*	
			Food grains	Non-food grains
1990–91	80.92	244.38	122.31	71.66
1994–95	55.22	198.33	121.14	119.63
1998–99	62.22	181.49	129.16	136.82
2001–02	59.19	177.13	135.90	136.03
Growth rate	–1.39	–1.86	1.04	4.13

Source: State Planning Board, 2001, 2003.

Note: *Base = Average of triennium ending 1979–80.

Rainfall and Irrigation

Unlike most other states in India, Kerala receives both the south-west and the north-east monsoons. The state receives a normal annual rainfall of nearly 3,000 mm, much higher than the national average of 1,190 mm. In spite of this, the distribution of annual rainfall in Kerala is highly skewed as the state receives nearly 60 per cent of it during the south-west monsoon months of June to August. As rainfall is concentrated over a limited period, it causes floods during the monsoon months leaving the remaining part of the year with shortage of water. Over the past 13 years from 1990 to 2002, the state has experienced shortage of rainfall in 10

years; in six years, the deficit exceeded 10 per cent of the normal rainfall.⁶ The erratic monsoons, in the absence of adequate irrigation facilities and effective flood control measures, have adversely affected the agricultural crop productivity in the state over the past several years.

Realising the importance of irrigation support in stabilising and enhancing agricultural crop productivity and considering its particular relevance in intensive paddy cultivation, 10 to 20 per cent of the total outlays of the first eight Five-Year Plans in Kerala had been earmarked for the development of irrigation. Even though minor irrigation projects are more cost-effective and ecologically sustainable, the thrust was on major and medium projects during the earlier Plans. The cumulative investment in the irrigation sector of the state till the end of the Ninth Plan amounts to Rs 3,097 crore, of which Rs 2,119 crore (68.42 per cent) was used for major and medium projects (State Planning Board, 2003). At the same time, the cumulative net irrigated area in the state till March 2002 is found to be 3.77 lakh hectares, which amounts to 17.2 per cent of the net area sown. Out of this, the contribution of major and medium projects was only 1.45 lakh hectares (38.46 per cent). On net area basis, the cost of providing irrigation infrastructure through major and medium projects is calculated at Rs 1.46 lakh per hectare, which is higher than the average price of paddy fields in many parts of the state.

Most of the major and medium projects in Kerala were primarily meant to provide irrigation support for the paddy crop with a view to bring in additional areas under this crop and to enhance cropping intensities. In spite of it, the area under paddy had shown incessant negative growth trends since the mid-1970s. There is no clear evidence to suggest that its productivity is closely linked to irrigation.⁷ The crop-wise shares of the gross irrigated area in Kerala have changed considerably during the period from 1990–91 to 2001–02. In 1990–91, rice accounted for 58.51 per cent of the gross irrigated area in the state, but its share declined to 42.57 per cent by 2001–02 (Table 7.10). Meanwhile, the relative share of coconut increased from 27.27 per cent to 36.57 per cent. Two other crops that registered substantial increases in irrigated area are areca nut and banana, the shares of which have increased from 5.25 to 7.28 per cent and from 2.74 to 5.64 per cent, respectively. More areas under other crops like vegetables, nutmeg, clove and betel leaves have also obtained irrigation facility during this period. It is to be noted that by 2001–02, the gross irrigated area under the two major garden crops—coconut and areca nut, taken together—exceeded the gross irrigated area under the principal food crop—paddy.

Table 7.10
Crop-wise Gross Area Irrigated in Kerala, 1990–91 to 2001–02 (hectares)

<i>Year</i>	<i>Paddy</i>	<i>Coconut</i>	<i>Areca nut</i>	<i>Banana</i>	<i>Other crops</i>	<i>Total</i>
1990–91	225,063 (58.51)	104,889 (27.27)	20,208 (5.25)	10,557 (2.74)	23,934 (6.22)	384,651 (100.00)
1995–96	234,409 (50.36)	164,518 (5.49)	25,544 (5.49)	10,737 (2.31)	30,296 (6.51)	465,504 (100.00)
2000–01	208,047 (45.44)	165,957 (36.25)	30,501 (6.66)	19,448 (4.25)	33,912 (7.41)	457,865 (100.00)
2001–02	183,992 (42.57)	158,050 (36.57)	31,467 (7.28)	24,372 (5.64)	34,336 (7.94)	432,217 (100.00)

Source: State Planning Board, 2003.

Note: Percentages to the gross irrigated area are given in parentheses.

RECENT TRENDS IN THE FARM PRICES OF PRINCIPAL CROPS

Since the beginning of the 1990s, the average farm prices of principal crops in Kerala show wide temporal variations. The introduction of the NEP and the resultant opening up of the state's agricultural market to the global market was expected to bring down the farm prices of all agricultural crops in general and those of commercial crops in particular. In this section, we briefly examine the price behaviour of eight major crops—paddy, coconut, tapioca, pepper, cashew nut, areca nut, rubber and ginger—during the period from 1990–91 to 2001–02.

Based on the trends in the farm prices of food and commercial crops, the post-globalisation period in Kerala can be divided into two separate phases—the period from 1990–91 to 1995–96 and the period from 1996–97 to 2001–02. During the first period, the average farm prices of all major crops, except coconut, showed unprecedented positive annual growth rates. During this period, the prices of the two major food crops—paddy and tapioca—doubled while the prices of commercial crops—pepper, rubber and ginger—increased by 113 per cent, 146 per cent and 105 per cent, respectively (Table 7.11). The overall increases in the farm prices of cashew nut and areca nut are found to be 109 per cent and 47 per cent, respectively.

Unlike in the first period, the average farm prices of all of the major commercial crops declined drastically during the second period. The price of coconut showed the highest negative annual growth rate of 8.64 per cent during this period. It was closely followed by the annual negative

Table 7.11
Growth Rate in the Average Farm Prices of Principal Crops, 1990-91 to 2001-02

Commodity	Unit	Average Farm Prices (Rs)				Growth Rates in Prices			
		1990-91	1995-96	1996-97	2001-02	1990-91	1995-96	1996-97	2001-02
						to	to	to	to
Paddy	Quintals	300	528	607	586	10.41	0.64	0.64	5.31
Coconut	Hundreds	301	360	480	341	-0.23	-8.64	-8.64	0.78
Tapioca	Quintals	151	261	300	320	10.67	2.77	2.77	8.24
Pepper	Quintals	3,234	6,887	8,773	6,942	19.03	-5.86	-5.86	16.28
Cashew nut	Quintals	1,380	2,878	2,731	2,520	12.00	-2.76	-2.76	5.30
Areca nut	Thousands	264	393	430	328	7.21	-3.80	-3.80	5.08
Rubber (RSS-4)	Quintals	2,129	5,204	4,901	3,228	17.33	-7.28	-7.28	3.41
Ginger (dry)	Quintals	2,528	5,182	4,067	3,071	18.37	-3.25	-3.25	6.60

Source: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

growth rates in the prices of rubber (-7.28 per cent), pepper (-5.86 per cent), areca nut (-3.80 per cent) and ginger (-3.25 per cent). However, the farm prices of paddy and tapioca continued to show positive growth rates in the second period also. Between 1996-97 and 2001-02, the farm price of paddy registered a marginal growth rate of 0.64 per cent but the price of tapioca showed a higher annual growth rate of 2.77 per cent.

CURRENT PROBLEMS

The declining profitability of crops, uneconomic size of operational holdings, shortage of farm labourers, high price of land and large-scale conversion of agricultural lands for other uses are some of the vital current problems that impair the state's agricultural development.

Low Profitability

Costs on material inputs and human labour account for more than 80 per cent of the total paid-out costs involved in the cultivation of all major crops in the state. After the adoption of the NEP during the early 1990s, the prices of agricultural inputs increased manifold. Since July 1991, the administered prices of nitrogenous fertilisers were increased by 30 per cent in accordance with the New Fertiliser Policy of the central government. The increase in the prices of phosphatic and potassic fertilisers was to tune of 250 per cent from August 1992. The overall increases in the prices of the key fertilisers—urea, superphosphate and muriate of potash—during the period from 1990-91 to 2001-02 were 57.84 per cent, 222.11 per cent and 242.69 per cent respectively. Meanwhile the prices of different types of pesticides also increased substantially. Again, within a period of five years from 1996-97 to 2001-02, the average daily wages of unskilled male and female farm labourers in the state increased by 38 per cent and 46.66 per cent, respectively. At the same time, the farm prices of coconut, pepper, cashew nut, areca nut, rubber and ginger declined by 28.96 per cent, 20.87 per cent, 7.73 per cent, 23.72 per cent, 34.14 per cent, and 24.49 per cent, respectively.

The rapid increase in cultivation costs along with the declining farm prices of agricultural commodities, in absence of any noteworthy increase in crop productivity, adversely affect the profitability of almost all crops. The index numbers of prices received and paid by the farmers in Kerala during the period from 1990 to 2002 show that the indices of cost of

cultivation and prices paid by farmers have increased at the annual rates of 12.09 per cent and 10.28 per cent, respectively. However, prices received by them increased at a much lower rate of 5.99 per cent (Table 7.12). All the more in all the years during 1990–2002, the parity indices of prices received and paid by farmers were unfavourable to the farmers.

Table 7.12

Index Number of Prices Received and Prices Paid by Farmers in Kerala, 1990–2002 (Base: 1952–53 = 100)

<i>Year</i>	<i>Prices received</i>	<i>Cultivation costs</i>	<i>Prices paid</i>	<i>Parity of prices received and paid</i>
1990	1,072	1,728	1,277	84
1991	1,315	1,910	1,435	92
1992	1,486	2,255	1,646	90
1993	1,496	2,579	1,834	82
1994	1,582	2,891	2,057	77
1995	1,802	3,312	2,331	77
1996	2,079	3,928	2,666	78
1997	2,486	4,571	3,007	83
1998	2,447	4,895	3,212	76
1999	2,907	5,556	3,532	82
2000	2,492	6,173	3,836	65
2001	1,927	6,584	4,048	48
2002*	1,999	6,684	4,122	49
Growth rate	5.99	12.09	10.28	-4.25

Sources: Directorate of Economics and Statistics, 2001; State Planning Board, 2001, 2003.

Note: *Up to April 2002.

Uneconomic Size of Operational Holdings

In 1995–96, there were 6,297,287 operational land holdings in Kerala with an average size of 0.27 ha. Of these, 94 per cent were marginal holdings of an average size of 0.16 ha.⁸

The per hectare income from agriculture in the state during that year is found to be Rs 27,369. Thus agricultural income from the marginal holdings in the state for the year on an average can be worked out as Rs 4,379. The per capita income of Kerala in 1995–96 is estimated at Rs 11,469 (at current prices) and it can be reasonably argued that a family of five members that depends exclusively on agricultural income should have at least 2.1 ha of land to keep its income on par with the state average.

However, in Kerala, only 1.86 per cent of the operational holdings span more than 2 ha. Naturally the uneconomic size of holdings deters young people from traditional farmer households to take up cultivation as a full-time occupation. The statutory land ceilings enforced after the Land Reforms (Amendment) Act of 1970 in the state inhibit the free flow of capital investments into this sector and thereby restrict the scope of large-scale scientific farming.

Shortage of Farm Labourers

In spite of the substantial increase in wage rates, the gap between demand and supply in the agricultural labour market has been widening in recent years. Currently, a very large number of farmer households in the state have other sources of income to supplement their earnings from farming. In most such cases, either the farmers themselves or any other member from their households seldom do any sort of manual work in their fields and are exclusively depending on hired labour. The worsening situation of labour shortage can be attributed to many interrelated factors, such as the growing employment opportunities for the rural workforce in other sectors, successful implementation of the various poverty alleviation measures and self-employment generating programmes introduced by the government in rural areas (like the Integrated Rural Development Programme and the Jawahar Rozgar Yojana), and the growing aversion of the new generation from agricultural labour families to follow their household occupation. Traditionally, a major portion of the farm labourers in the state belong to Scheduled Castes; over the past few decades, the social and economic status of this segment of the rural population has considerably improved. Currently, a large number of persons from such families are permanent employees in other sectors and are capable of financially supporting their households. The successful adoption of family planning programmes and the resultant decline in dependency load has enabled many agricultural labour households to rely exclusively on the earnings of male members and their womenfolk refrain from farm labour activities. The large-scale migration of rural youth to foreign countries and to other states has also reduced the supply of farm labourers within the state.

Increase in Land Prices

Currently, agricultural land prices are so high in Kerala that if interest on land value were added to the paid-out costs of cultivation, none of the

major crops cultivated in the state would be economically viable.⁹ Land is not always treated as a means of production in the state but is often regarded as an asset that can be used for speculative exchange (Oommen, 1994). Therefore many speculative investors without any genuine interest in farming have already entered the land market as buyers. Currently, nearly 12 lakh persons from the state are employed in other parts of the world and annual remittances from them amount to more than 3,530 crore rupees. As land is a safe asset with fair liquidity, a considerable portion of the foreign remittances coming in to the state is used for the purchase of land, which leads to abnormal increase in land prices.

Conversion of Agricultural Land for Other Uses

Compared to the earlier decades, the annual rate of increase in the proportion of land put to non-agricultural uses has been relatively higher since the beginning of the 1990s. During the period from 1990–91 to 2001–02, absolute land area used for non-agricultural purposes increased from 297,381 to 392,352 ha, showing an overall increase of 31.94 per cent. With the growing pressure of population and development of the secondary and tertiary sectors, agricultural land throughout the state is being converted for the construction of residential buildings, commercial establishments, roads, health and educational institutions etc., which in turn reduces the net area sown in the state.

Besides these factors, poor achievements in agricultural research, absentee landlordism, militancy of farm labourers, environmental degradation, poor soil management, inadequate plant protection measures, drawbacks in the formulation and implementation of agricultural development programmes, and so on, have played their own roles in bringing down the pace of agricultural development in the state.

CONCLUSION

This chapter, with its focus on the salient features of agricultural development in Kerala during the period from 1990–91 to 2002–02, clearly shows that the growth rate in agriculture has decelerated after the early years of 1990s. Throughout this period, the share of agricultural income in the NSDP had declined and changes in cropping pattern were in favour of commercial crops. Compared to food crops and garden crops, the growth performance of plantation crops in general has been relatively better. As the net area sown in the state had already reached its saturation

level by the end of the 1980s, emphasis was on improving crop productivity through the adoption of better farming technology. However, there is no clear evidence to suggest that any of the major contributors of crop productivity such as HYV coverage, fertiliser use, or irrigation has played any decisive role in enhancing crop productivity at the state level. Again, during the second half of the 1990s, the state experienced a sharp decline in the farm prices of commercial crops, which resulted in an unprecedented crisis in its agricultural sector. Declining profitability, uneconomic size of operational holdings, shortage of farm labourers and the high prices of agricultural land and its conversion for non-agricultural uses are some of the major current problems.

APPENDIX

Table 7A

Year	Productivity/hectare		Difference from local variety (%)
	High-yielding variety	Local variety	
1990-91	2,207	1,833	20.40
1991-92	2,129	1,883	13.06
1992-93	2,223	1,919	15.84
1993-94	2,157	1,884	14.49
1994-95	2,019	1,894	6.60
1995-96	2,362	1,842	28.23
1996-97	2,185	1,933	13.04
1997-98	2,117	1,866	13.45
1998-99	2,226	1,894	17.53
1999-2000	2,379	1,929	23.33
2000-01	2,327	1,854	25.51
Average	2,212	1,885	17.35

Source: State Planning Board, 2003.

Table 7B

Year	Annual rainfall (mm)	Departure from normal (%)		
		Annual	South-west monsoon	North-east monsoon
1990	2,780	-28	-25	-4
1991	3,106	-39	18	-21
1992	3,353	-37	15	35
1993	2,819	-8	-12	32
1994	3,461	11	15	13
1995	2,922	-6	-6	-22
1996	2,684	-13	-8	2
1997	3,207	3	6	31
1998	3,120	0	2	30
1999	2,871	-8	-25	23
2000	2,465	-21	-18	-27
2001	2,907	-6	-13	0
2002	2,515	-14	-33	32

Source: State Planning Board, 2001, 2003.

Table 7C

<i>Size of holdings (hectares)</i>	<i>Number of holdings</i>	<i>Percentage</i>	<i>Average size (hectares)</i>
Marginal (less than 1)	5,919,075	93.99	0.16
Small (1 to 2)	261,418	4.15	1.32
Semi-medium (2 to 4)	94,098	1.49	2.54
Medium (4 to 10)	19,555	0.31	5.31
Large (10 and above)	3,141	0.05	35.27
All sizes	6,297,287	100.00	0.27

Source: Directorate of Economics and Statistics, 2001.

1. Food crops include rice, tapioca, other cereals and millets, banana and other plantains, and pulses. Crops like coconut, areca nut, cashew, and pepper are garden crops while tea, coffee, cardamom, and rubber are plantation crops.
2. During this period, the average daily wages of male farm workers increased from Rs 35.77 to Rs 127.21 and those of female workers from Rs 21.11 to Rs 88.75. In spite of this, the average farm price of paddy increased from Rs 300 per quintal to Rs 586 per quintal and price of tapioca increased from Rs 151 per quintal to Rs 320 per quintal.
3. As per the provisional estimates, Kerala's SNDP at current prices in 2000–01 is found to be Rs 63,09,412 lakh and out of this the contributions of the secondary and tertiary sectors were Rs 13,34,431 lakh (21.15 per cent) and Rs 33,69,484 lakh (53.40 per cent), respectively (State Planning Board, 2003, table appendix 3.7, p. S7).
4. Table 7A in the appendix shows the percentage difference in the per hectare productivity of HYV and local varieties of paddy in Kerala.
5. After analysing the relationship between per hectare use of fertilisers and crop productivity in the state for the period from 1952–53 to 1989–90, Pillai (1994) also points out that increased fertiliser consumption is not a sufficient condition for higher productivity.
6. Annual rainfall and season-wise percentage departure from normal in Kerala during the period from 1990 to 2002 are given in Table 7B in the appendix.
7. Earlier studies show that the role of irrigation in raising crop productivity in the state is only marginal (see, for example, Narayana, 1983; Kannan and Pushpangadan, 1988).
8. Table 7C in the appendix shows the number of operational holdings in Kerala by size class during 1995–96. Due to persistent subdivisions, the average size of operational holdings in the state might have further decreased by the beginning of this century.
9. In order to estimate cost cultivation of important crops in Kerala, the Department of Economics and Statistics uses three cost concepts—Cost A, Cost B and Cost C. Cost B is calculated by adding 10 per cent of interest on fixed capital (including land) to Cost A (paid-out costs). If Cost B is compared to the value of output, it far exceeds the latter in the case of all major crops (George, 1988).

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TRADE REFORMS AND COMMODITY
PRICES IN KERALA*:
THE CASE OF RUBBER AND COCONUT



Poornima Varma

The liberalisation of the economic policy regime since 1991 has left practically no sector of the economy unaffected. The process, however, exhibits considerable variations across sectors as well as regions not only in terms of pace and intensity of reforms but also with respect to their effects and implications. Such variability across regions and sectors necessitates studies, which help us focus on individual sectors, crops and regions. Agriculture, perhaps on account of its overwhelming importance, has traditionally been an area characterised by a high degree of government intervention. The general process of opening up of the economy initiated during the 1990s and the establishment of the World Trade Organisation (WTO) in 1995 resulted in the gradual withdrawal of the government from the agricultural sector. The new trade policy regime following the WTO Agreement on Agriculture (AOA) establishes new rules and commitments, namely export competition, domestic support and market access. The objective of this AOA was to reduce the distortions in agricultural trade through increased market access and scaling down of domestic support and export subsidies. This, therefore, calls for major structural and policy changes as far as India's agriculture is concerned.

*This chapter is extracted from my M. Phil. dissertation titled 'Agriculture Under Economic Liberalisation: A Study of Rubber and Coconut Prices in Kerala', submitted to the Jawaharlal Nehru University, New Delhi. At this juncture, I would like to express my sincere gratitude to Dr Vikas Rawal and Dr K.N. Harilal for their critical observations on earlier drafts. Without Dr Harilal's encouragement and support, this chapter would not have materialised. The usual disclaimers apply.

This chapter focuses on the impact of the new policy on the prices of natural rubber (NR) and coconut economy of Kerala.¹ Kerala has a highly outward-oriented economy because of its long drawn-out and intense involvement in international trade. Therefore, the changes in the national policies, especially liberalisation of the trade regime, are expected to have major implications for the state's agricultural sector. The chapter is organised into four sections as follows: Section 1 which gives a brief description of the database and the analytical framework of the study; Section 2 which tries to document and analyse major policy changes in the sphere of agriculture in general and with respect to the rubber and coconut economy in particular; Section 3 which is devoted to an analysis of the impact of trade liberalisation on the prices of rubber, coconut and coconut oil; and Section 4 which concludes the chapter.

SECTION I: DATA AND ANALYTICAL FRAMEWORK

The multidimensional nature of the liberalisation process makes its analysis an unenviable proposition. One way out would be to classify the policy tools and initiatives according to their effects on production and trade of agricultural products. The AOA has proposed such an analytical scheme, which is now being widely used in literature (Das, 1999; Dasgupta, 1998; Government of India, 2001; Jha, 2001). Even though the AOA scheme is not above limitations, in view of its analytical significance and wide acceptance, we have decided to choose the same for our purpose of reviewing the Indian policy regime. Following the framework used in the AOA, the policy measures in the agricultural sector may be classified into three broad areas according to their impact: market access, domestic support and export competition. The focus in this chapter, however, would be more on the question of markets access and trade.²

Natural rubber (NR), however, does not figure in the list of products covered by the AOA. The WTO agreement treats NR as an industrial product. The provisions of AOA therefore are not applicable to the NR sector. Yet, we have decided to employ the AOA framework to analyse the liberalisation process in the NR sector for two reasons. First, its exclusion from the list of agricultural products in the AOA notwithstanding, NR in every sense is an agricultural product. Second, our objective is more to study the larger process of liberalisation than the impact of AOA.

The AOA aimed to prevent trade distortions and thereby create an appropriate incentive structure for agriculture production and export through the progressive elimination of trade barriers and the phasing out

of domestic support and export subsidies. This is expected to pave the way for the gradual integration of the domestic prices with the world prices. This price integration may have some implications on the behaviour of domestic prices, as the fluctuations in the international markets are much higher than the domestic market (Nayyar and Sen, 1994). This might be so because small variations in supply can lead to wide fluctuations in the prices of agricultural commodities in the world market (Newberry and Stiglitz, 1981). Earlier the domestic prices were controlled primarily by the domestic demand and supply conditions and were insulated from the world prices. The supply and demand factors were more or less under the control of the government.

After the initiation of trade liberalisation, the changed scenario forced India to enter into the world market and this is expected to have some implications on the behaviour of domestic prices. For analysing the impact of the new policy environment, we have used both real and nominal prices of the commodities. The trends in the real prices indicate the changes in price of a crop in comparison with the trends in the prices of the basket of commodities that are used for the deflator. In the analysis that follows, we have used two price indices to deflate the nominal prices of the rubber, coconut and coconut oil.³ These are the price of rice and the Consumer Price Index for Agricultural Labourers (CPIAL). Rice constitutes the main food crop in Kerala and the relative price in respect of rice indicates how the prices of commodities being studied have changed in comparison with the prices of rice. The price relatives with CPIAL also reflect the prices of commodities being studied in relation to the prices of the commodities being consumed by the rural population (strictly speaking, agricultural labourers). It is also noteworthy that rice is a major import of Kerala.

Regarding the database, we have mainly used the publications of the Directorate General of Commercial Intelligence and Statistics (DGCI&S), Ministry of Commerce, for collecting data on imports.⁴ The data on prices is collected from the respective commodity boards.⁵ Accordingly, the prices of rubber are collected from the *Indian Rubber Statistics* published by the Rubber Board, Kottayam.⁶ The analysis uses prices of RSS4 grade of NR from the Kottayam market.⁷ For comparison, we have taken RSS3 grade rubber price in Malaysia (Kuala Lumpur) as the representative price for world market.⁸

Data on prices of coconut and coconut oil is collected from *Coconut Statistics*, published by the Coconut Development Board, Kochi.⁹ We have used the prices in Alleppey and Kochi for coconut and coconut oil,

respectively.¹⁰ We also use the international prices of coconut oil in the Philippines for the comparison of domestic price with the world price.¹¹

The data on the CPIAL is taken from the Reserve Bank of India's *Reports on Currency and Finance*. The data on prices of rice is collected from *Statistics for Planning*, published by the Directorate of Economics and Statistics. We use the yearly average retail price for rice in the open market as the representative price for rice.

SECTION 2: RUBBER AND COCONUT UNDER LIBERALISED TRADE REGIME

The general environment of import-substitution strategy followed by India was perhaps more pronounced in rubber. Under this regime, the domestic market for rubber remained more or less isolated from the international market. The coconut economy of the country, on the other hand, on account of the persistent gap between domestic supply and demand, was exposed to imports and international competition. But, imports and trade, even when allowed were under the direct supervision and control of the government. Trade liberalisation, however, brought dramatic changes to such an environment.

Removing or scaling down of *export subsidies* is the first dimension of the WTO agreement. As far as the Indian economy is concerned, the export-pessimistic regime did not do much by way of export promotion activities. In the case of India, therefore, the AOA would not make much difference as the country had been giving far less subsidy than the proposed WTO limits. Therefore, in the rubber and coconut sectors, the liberalisation process did not result in substantial reduction of export subsidies for the reason that such subsidies rarely existed.¹²

The environment of liberalisation has made the government reluctant to intervene in the market. This policy shift became more apparent when prices started falling in the second half of the 1990s. For instance, the State Trading Corporation (STC) was the main mechanism for effecting export and import of rubber and also for regulating domestic prices. The STC intervened on many occasions in the market to procure and export rubber to prevent the drastic decline in the prices.¹³ But, the STC intervention was rather weak compared to the earlier situations.

Removal or scaling down of *domestic support* measures is the second dimension of the process of economic liberalisation. The AOA has two main aims: to identify acceptable measures that support farmers and to

deny unacceptable, trade distorting support to farmers (Das, 1999). The trade-distorting supports have to be quantified in order to calculate the Aggregate Measure of Support (AMS). The agreement establishes a ceiling on the total domestic support that governments provide to domestic producers. Developed countries are assigned a ceiling of 5 per cent, while developing countries are allowed to subsidise up to 10 per cent of the value of agricultural production. Above the benchmark, developed countries must reduce the AMS by 20 per cent and developing countries by 13.3 per cent (Dhar and Dey, 2001; GoI, 2001). Since our total AMS is negative, the question of undertaking reduction commitments did not arise (Gulati, 1998; GoI, 2001).

Thus, as in the case of export subsidies, the AOA stipulations on domestic support also did not demand major changes in India's trade regime in the area of agricultural products. For example, the calculation of the rubber board expenditure as a proportion of the value of production reveals two interesting aspects (Table 8.1). First, in the 1990s, the total expenditure, which includes many permissible items, was well below the 5 per cent mark. Second, the rubber board expenditure as a proportion of the value of production has been declining in a sustained manner from 1986–87 onwards. Another important point to be mentioned here is that since the rubber boards' activities are being financed by the cess on the sale of rubber, a major part of the boards' expenditure is indirectly born by the producers themselves.

In the context of domestic support measures, it may be reiterated the government has become less enthusiastic in intervening in the market to arrest decline in prices by way of procurement, buffer stocks and exports. Canalisation of imports through the STC and the buffer stock scheme (BSS) were the main forms of intervention to stabilise prices. From 1962 to 1982, the STC had a monopoly over imports of NR. From 1982 onwards, exporters were given the license to import rubber free of duty to enhance their competitiveness. The BSS was started in 1986 to ensure stability of the market prices of NR. The track record of the BSS has not been encouraging from the point of view of its declared objective of stabilising prices (Zant, 1998). Even though the buffer stock operations continued in the liberalisation period, there is a clear decline in the government's commitment to intervene and stabilise prices.

When we turn to the question of domestic support measures for coconut and its sub-products, we can find that like the rubber board, the coconut board also extends the support lower than the limits proposed by the WTO (Table 8.2). For instance, the coconut board's expenditure as

Table 8.1
Rubber Plantation Development Scheme as a Percentage of Total Rubber Production

<i>Scheme</i>	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Subsidy	0.58	0.67	0.60	0.63	0.62	0.59	0.61	0.54	0.58	0.36	0.26	0.29	0.42
Research	0.07	0.21	0.20	0.20	0.19	0.14	0.16	0.13	0.15	0.09	0.10	0.11	0.35
Processing marketing and product development	0.10	0.18	0.12	0.24	0.23	0.24	0.30	0.19	0.15	0.48	0.43	0.42	0.49
Extension training and supply	0.08	0.27	0.17	0.33	0.33	0.28	0.35	0.27	0.31	0.17	0.09	0.10	0.13
Infrastructure development	0.07	0.10	0.12	0.12	0.09	0.10	0.06	0.05	0.05	0.04	0.03	0.04	0.05
Maintenance of nurseries and distribution of planting materials	-	0.10	0.21	0.29	0.18	0.10	0.14	0.11	0.12	0.16	0.08	0.12	0.14
Special component plan	0.02	0.04	0.04	0.04	0.04	0.03	0.05	0.04	0.06	0.06	0.04	0.04	0.05
Labour welfare	0.11	0.18	0.07	0.04	0.09	0.12	0.13	0.14	0.10	0.05	0.03	0.02	0.03
Operation expenses	0.54	0.60	0.62	0.55	0.46	0.42	0.50	0.48	0.46	0.40	0.28	0.32	0.55
General administration	0.22	0.28	0.27	0.27	0.24	0.21	0.22	0.21	0.20	0.16	0.12	0.11	0.18
Total expenditure	4.70	5.98	5.28	5.07	4.04	4.15	4.12	3.41	3.31	2.75	1.91	2.01	3.04

Source: Rubber Statistics, various issue.

Note: Subsidy includes both replanting and new planting subsidy.

Table 8.2
Coconut Development Board's Total Expenditure
as a Percentage of Total Domestic Production

<i>Year</i>	<i>Total Expenditure as a Percentage of Total Domestic Production</i>
1987-88	0.71
1988-89	0.72
1989-90	0.83
1990-91	0.94
1991-92	1.42
1992-93	1.44
1993-94	2.91
1994-95	3.87
1995-96	3.64
1996-97	3.15
1997-98	5.44
1998-99	3.99
1999-2000	3.47

Source: Coconut Development Board.

a percentage of total coconut production was increasing till 1997-98 but started falling after that. However, the total support extended to the sector, which also includes many permissible items, was well below 5 per cent throughout the period.¹⁴

Improving *market access* is the third dimension of the WTO agreement. The opening up of the Indian market for imports as well as exports by way of scaling down or removal of trade barriers may be attributed to three distinct sources of change: first, the general process of economic reforms since 1991; second, the establishment of the WTO in 1995; and third, the bilateral and regional free trade agreements signed by the country.

The AOA has a two-pronged strategy of trade liberalisation; first, tariffication of all non-tariff barriers and second, progressive reduction of all tariff levels.¹⁵ In most cases of agricultural products, as of now, India's applied rates are below the bound rates (Gulati and Sharma, 1997). This is partly explained by the fact that liberalisation process in India had started much before the establishment of the WTO.

The process of liberalisation of trade barriers, perhaps, was more pronounced in the rubber sector, owing to its exclusion from the list of agricultural products. The tariff lines of agricultural products were bound at three levels—100 per cent for primary products, 150 per cent for

processed products, and 300 per cent for edible oils (Government of India, 2001). However, tariff lines related to the rubber sector (Chapter 40 of *Harmonized System of Trade Classification*) were not eligible for such generous treatment, because the Government of India had adopted different norms for fixing the bound rates for industrial and agricultural products (Joseph and George, 2002).¹⁶

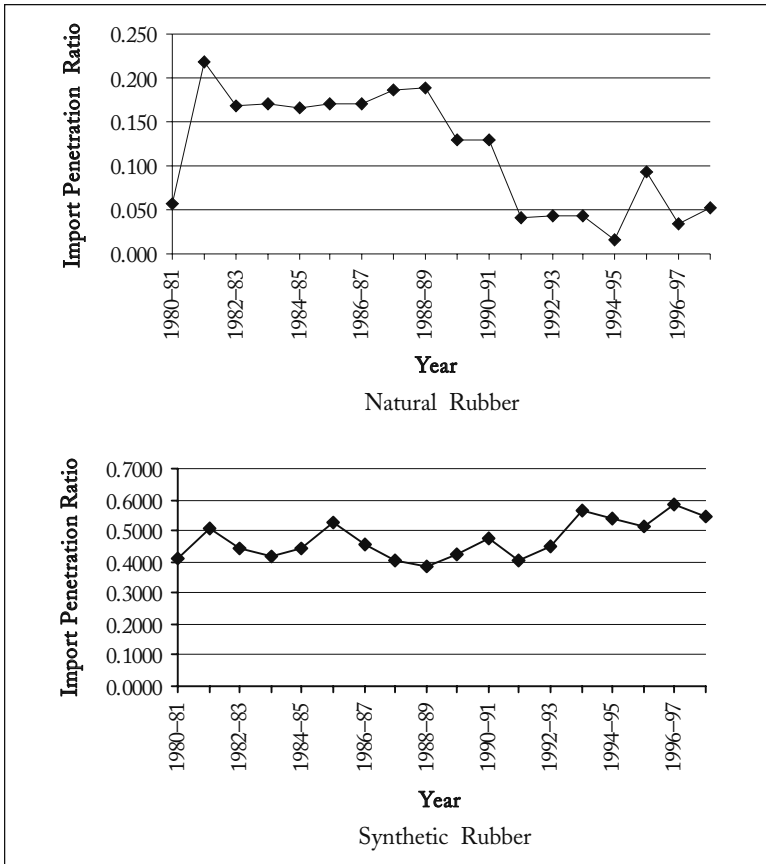
As a comparison of base duties that existed on 1 January 1990 and the bound rates shows, the tariff cuts effected in the area of rubber and rubber products were quite deep. The picture does not change significantly even when the comparison is between base rates of 1990 and total applied rates of 2001–02. Incidentally, total applied rates includes—in addition to the basic rates—additional and special additional duties. It must however be mentioned that the tariff reductions were effected through a gradual process beginning in the early 1990s (Veeraputhran, 1999). The removal of quantitative restrictions and the emergence of preferential trading agreements have also strengthened the process of integration of the Indian rubber economy with that of the international market.

However, in contrast to the popular notion, liberalisation of import barriers did not lead to a surge in imports of NR. Interestingly, the import of NR has tended to decline during the 1990s. But, the import of synthetic rubber (SR) has tended to increase during the 1990s. The diverging behaviour of imports of NR and SR is seen reflected in the graph of import penetration ratios that we have computed (Figure 8.1).¹⁷

During the 1980s, the import penetration ratio of NR tended to move up signifying increasing importance of imports. Interestingly, this was a period characterised by a highly restrictive import regime. Paradoxically, when the trade regime changed and import barriers liberalised, the imports of NR appear to have declined or stagnated.

A further disaggregated analysis of imports of NR and SR from 1987–88 to 2000–01 brings out a fluctuating pattern across different sub-groups.¹⁸ But, the general pattern of decline in the case of NR and increase in the case of SR is more or less clear. Interestingly, the rate of reduction in the tariff rates of NR did not have much impact on the imports. Both the quantity and the value of imports have declined in almost all the grades of NR along with the reduction in the rate of tariff. In the case of NR, in the forms of latex and non-latex, the rate of tariff has been reduced from around 85 per cent in 1990–91 to 30 per cent in 2000–01. But the decline in imports was drastic in the case of these forms of NR, both in terms of quantity and value.

Figure 8.1 Import of Natural and Synthetic Rubber as a per cent of Apparent Consumption



All kinds of SR experienced significant increases in imports throughout the 1990s and witnessed a sharp decline in the beginning of 2000.¹⁹ Irrespective of the higher rate of tariff for SR and reclaimed rubber (RR) compared to NR, the import of SR and RR was allowed freely. Hence the increased imports of SR and RR could be partly attributed to the permission for free imports.

In the case of RR also, almost all kinds of RR like 'reclaimed rubber in primary forms or in plates', 'waste, parings and scarp of rubber', 'compounded rubber', etc., have showed increase in terms of imports but declined slightly in the beginning of 2000.²⁰

Compared to NR, coconut and its sub-products were exposed to trade and international competition owing to excess demand and the economy had to depend on imports. While the import of coconut has been negligible since 1972–73, the imports of its sub-products and other edible oils have continued. The main product of coconut that is traded internationally is coconut oil. So here we give more emphasis on the import of coconut oil. The fact that the country used to import large quantities of coconut products during the pre-liberalisation period does not mean that the coconut sector enjoyed a free trade regime. On the contrary, the policy regime was as interventionist as in the case of other crops.

Coconut and its sub-products are treated as agricultural products under the WTO agreement and therefore follow the norms for fixing the bound rates for agricultural products. Significantly enough, the bound rate in the case of coconut oil was 300 per cent, which was substantially higher when compared to the respective base rate of 165 per cent. This, it may be noted, gives considerable manoeuvrability to the policy-makers in fixing the current rates. In other words, the current rates can be raised up to the level of bound rates without violating the international commitments. Interestingly the applied rate (as on 1 January 2001) was only 100 per cent. The figures reveal fairly deep cuts in tariffs since 1991. As for coconuts, the tariff lines are bound at 100 per cent. This is in conformity with the Government of India norm that tariffs would be bound at 100 per cent for primary products. Here again the applied rate is 76.8 per cent—significantly lower than the bound rates signifying the government's commitments to liberalisation.

As far as the non-tariff barriers are concerned, the import of certain grades of coconut oil like coconut (*copra*) crude oil and its fractions and coconut (*copra*) refined oil and its fractions are free. Whereas the imports of other kinds of edible oil like crude palm kernel/*babassu* oil and its fractions and refined palm kernel/*babassu* oil and its fractions were subjected to restrictions based on Balance of Payments (BOP) considerations. The import of desiccated coconut was free, whereas the import of other kinds of coconut was canalised due to BOP consideration. However, India had to later remove BOP-based quantitative restrictions. Another important development in the area of trade policy has been the regional free trade agreements. The regional free trade agreement with Sri Lanka is worth special mention because the island country is a major producer of coconut-related products.

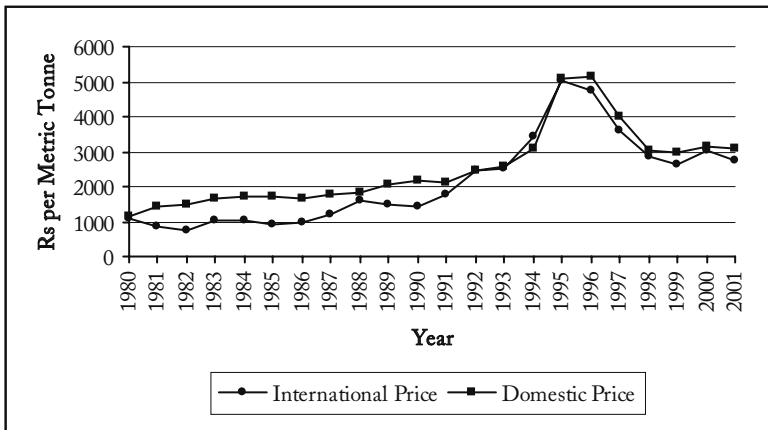
The high level of year-to-year fluctuations in imports of coconut oil, which characterised the pre-liberalisation era, appear to have persisted

into the 1990s as well. However, but for the exceptional year 1997–98, the period since 1994–95 has been marked by steady and steep rise in the imports of coconut oil. In fact, in terms of quantity, the import for 2000–01 is an all-time record. Imports of different sub-groups of coconut oil appear to have followed diverging patterns. The steady growth at the aggregate level seems to come from the refined categories of coconut oil imported from Indonesia, Malaysia and Singapore. Crude coconut (*copra*) oil and its fractions have registered high growth in the first half of 1990s, but experienced sharp decline in the later period. Imports of crude palm kernel oil and fractions have been erratic over the period. However, even this category of coconut oil registered marked increase in import in 1999–2000 and 2000–01.

The picture of the import of coconut oil would be incomplete without a mention of the import of palm oil. Coconut oil and palm oil are reported to be substitutes (Narayana et al., 1991; Santhakumar and Nair, 1999). There is a general notion that the import of palm oil is adversely affecting the demand for coconut oil because of the substitution effect of palm oil for coconut oil. It is obvious from the larger volume of import of palm oil into the country.²¹ Though the level of import of palm oil is high, this alone does not sufficiently explain the decline in demand for the domestic coconut oil as the growth in import of coconut oil itself appears to have been sharper when compared to palm oil. This phenomenon could be attributed to two factors: (a) the substitution of coconut oil with palm oil in the world market²² and (b) the resultant lowering of coconut oil prices in the world market. This could be one of the underlying reasons for the import of coconut oil in to the domestic market.

SECTION 3: IMPACT ON NOMINAL AND REAL PRICES

Trade liberalisation is expected to bring domestic prices closer to the world prices. The nature of price integration may vary across the crops depending upon the type of policy changes initiated as part of the liberalisation process. For instance, the changes in the export–import policy in respect of rubber in the 1990s can be divided into interventions for reduction of import tariff and interventions for removal of restrictions of imports and exports. The import tariff on rubber reduced from 60 per cent in 1983 to 30 per cent in 1992 and further to 25 per cent in 1995 and 20 per cent in 1997 (Veeraputhran, 1999). The export of rubber was also allowed since 1992 (*Indian Rubber Statistics*, 2000). Moreover, there

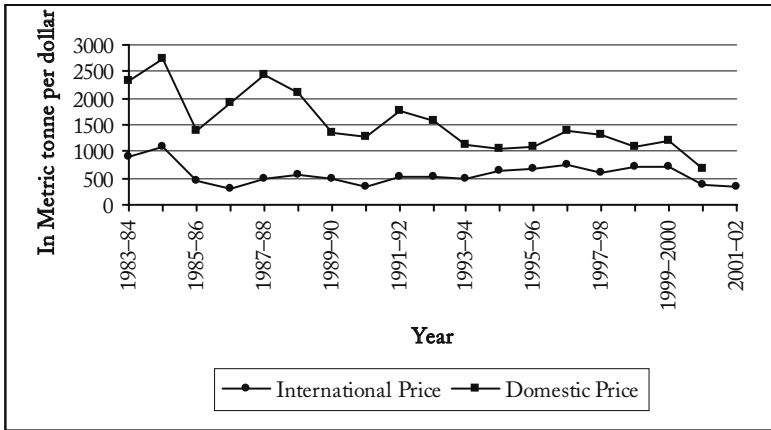
Figure 8.2 Domestic and International Price Movements of Rubber

was no import of rubber through the STC since 1991–92 and the import through other channels increased. All these policy shifts may have resulted in the domestic prices to move almost on par with the world prices since 1992 (Figure 8.2).

The international price of rubber was lower than the domestic price in almost all the years except in 1994. The sharp increase in price that occurred in Kerala during the mid-1990s and the subsequent sharp decline could be attributed to the close association between domestic and international prices of rubber. The data shows that the prices of rubber in Kerala and in the international markets were highly correlated throughout the period but this correlation became still stronger in the 1990s. The correlation coefficient increased from 74 per cent in the pre-liberalisation period (1980–91) to 97 per cent in the post-liberalisation period (1992–2001).

The domestic prices of coconut oil also came closer to the international prices in the 1990s than they were in the 1980s (Figure 8.3). A peculiar feature of the trends in the prices of coconut oil was that although the gap between the domestic and the world prices declined, the trends in the domestic prices were less correlated with the international prices in the 1990s than they were in the 1980s. The correlation coefficient was lower in the post-liberalisation period (40.4) compared to the pre-liberalisation period (72.2). The correlation was found to be significant when we take the whole period under study together (i.e., 10 per cent level). But there was no significant correlation in the post-liberalisation

Figure 8.3 International and Domestic Price Movements of Coconut Oil
(in metric tonne per dollar)



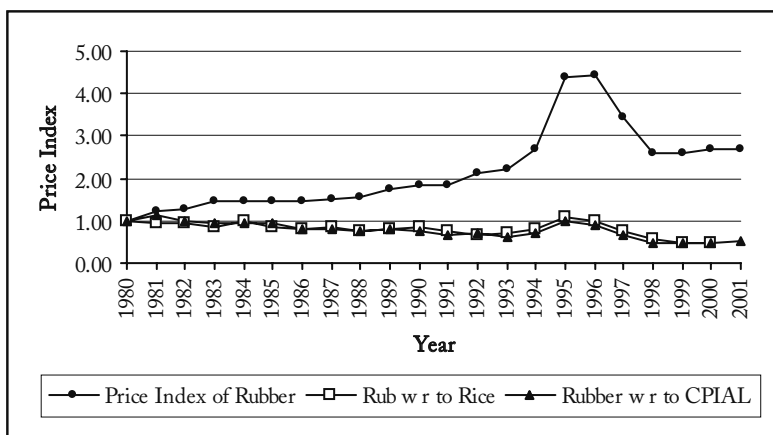
period. In the pre-liberalisation period, the correlation was significant at 2 per cent level.

The pattern of movement of the domestic and the international prices was similar in the 1980s. There was a sharp decline in the domestic price of coconut oil from 1983–84 onwards. We could observe a similar decline in the world price for coconut oil also. In the post-liberalisation period, the pattern of movement of the domestic and the international prices was not similar. The trend in square of percentage deviation of domestic and world prices of coconut oil, however, shows that the gap between domestic and international prices has narrowed down during the 1990s.²³

The narrowing down of the gap between domestic and world prices as a result of trade liberalisation is expected to have some impact on the prices in the domestic market. As we noted earlier, the prices may become unstable due to the instability of prices in the world market. The liberalisation, however does not show any significant change towards less or high instability in rubber prices.²⁴ The period since 1993 witnessed a structural change in the price series using the chow test and dummy variable method.²⁵ Given that there was a structural change in 1993, we estimate compound annual growth rate of prices separately for period 1980–92 and for 1993–2001.²⁶ The growth rate in the period 1980–92 was 4.98 per cent. It was significant and positive. The growth in the period 1993–2001 was negative and the prices declined with a compound growth of –1.26 per cent.

The trends in real prices show that there was a steady fall in the prices of rubber in relation to the rice prices and the CPIAL from the early 1980s to 1992. The prices of rubber shot up in the two years after that and both the real price ratios reflect that increase. There was a substantial recovery in the real price, both with respect to rice and the CPIAL. However, from 1995, the prices of rubber fell steeply in relation to prices of rice and the CPIAL (Figure 8.4).

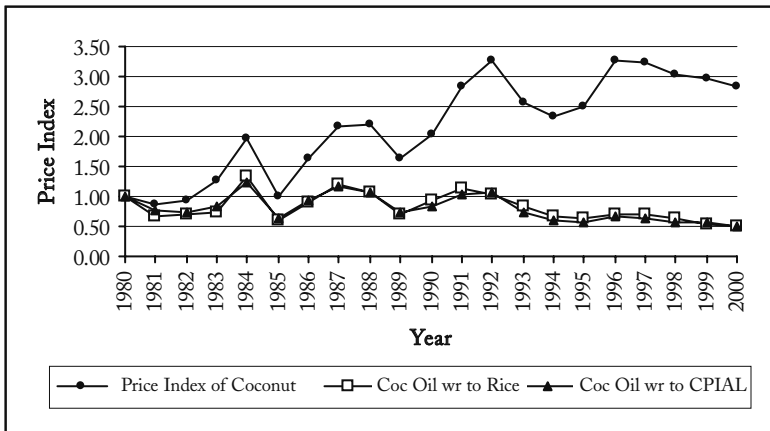
Figure 8.4 Nominal and Real Price Movement of Rubber



Coconut prices show wide fluctuations throughout the period under study. In the case of coconut also, the liberalisation does not lead to any perceptible change in instability. The nominal prices of coconut in Kerala, however, started declining from 1997 onwards. The decline in the prices of coconut could be attributed to the decline in the prices of coconut oil. The price of coconut is influenced by the price of coconut oil and the amount of the imports of coconut oil (Mathew, J., 1978; Mathew, T., 1994).

In the case of coconut also, the chow test and the dummy variable method confirm the existence of a structural change in the series since 1991–92, i.e., after the liberalisation. The growth rates of coconut prices became significantly negative during the post-liberalisation period. Growth in prices during the pre-liberalisation period was significant but positive with 9.09 per cent growth rates.

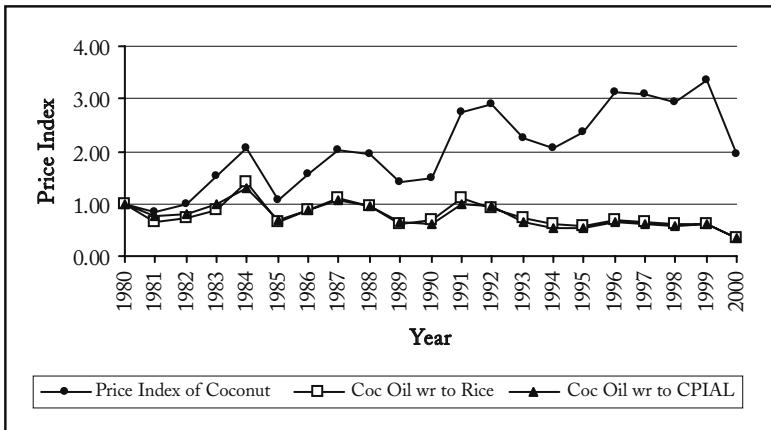
The worsening tendency of real prices with respect to the price of rice and the CPIAL was obvious since 1992. This was more in the case of price

Figure 8.5 Nominal and Real Price Movement of Coconut

with respect to the CPIAL. Throughout the period, the price movement was more or less unfavourable to coconut prices (Figure 8.5).

Both the nominal and real prices for coconut oil exhibited wide cycles throughout the period under study. This peculiarity in the behaviour of both coconut and coconut oil could be attributed, as we said earlier, to the relatively low protection. Studies show the influence of imports of *copra* coconut oil on the behaviour of coconut and coconut oil prices (Mathew, J. 1978). The lack of clear-cut import policy created lots of uncertainty in the market (Mathew, J. 1978; Narayana et al., 1991). All these can be the reasons for the insignificant change in the instability due to the trade liberalisation. We could see a sharp decline in the prices for coconut oil in the late 1990s and early 2000. Although there was a substantial decline in the growth of prices of coconut oil in the 1990s, the chow test does not find existence of any structural break in 1991–92. The compound annual growth rate of coconut oil prices was about 5.98 per cent and was statistically significant between 1980–81 and 1991–92. In the post-liberalisation period (i.e., 1992–93 to 2000–01), the growth rate was only about 0.47 per cent and was statistically insignificant.

The trends in the index of nominal prices of coconut oil and the indices of real prices using the price of rice and the CPIAL as the deflators is given in Figure 8.6. The decline in the nominal prices of coconut oil reflects in the fall in real prices both with respect to rice and the CPIAL. The real prices of coconut oil from 1992–93 to 2000–01 were the lowest in the 20-year period.

Figure 8.6 Nominal and Real Price Movement of Coconut Oil

CONCLUSIONS AND POLICY IMPLICATIONS

Though the liberalisation process did not bring in any major shifts in domestic support and export subsidies extended to the crops the gradual withdrawal of the government from the market intervention was obvious. This, however, was not on account of the WTO agreement. Rather, the changes were part of the larger exercise of macroeconomic stabilisation and structural adjustment policies initiated in the country even before the introduction of the WTO. The policy departure was very pronounced in the case of market access through the removal of trade barriers. In sharp contrast to the general perception, the removal of trade barriers did not lead to a surge in the imports of NR. This indicates that there are other factors, in addition to the existence of trade barriers, that influence the growth of imports. The possible reasons could be the narrowing down of the gap between domestic demand and supply of NR due to increased production and the narrowing down of the gap between world prices and the domestic prices. The imports of RR and SR have, however, tended to increase over the 1990s. Contrary to what has been observed in the case of NR, both palm oil and coconut oil have responded positively to the liberalised regime of imports. Both the categories of edible oil have registered significant growth in imports during the 1990s. The positive response might have been due to the persistent excess demand situation in the country.

On the whole, the decade of the 1990s has been one of greater integration of the rubber and coconut sectors with the world market. An important fallout of trade liberalisation is the narrowing gap between domestic and international prices. In the case of NR, since 1992, the domestic and world prices have been moving together. The unprecedented increase in the prices of rubber during the mid-1990s and drastic decline since 1995 could be attributed to this movement. The integration with the international markets led to a sharp decline in the nominal and real prices of rubber, coconut and coconut oil. The analysis of real prices with respect to the price of rice and the CPIAL revealed the fact that the price movement was unfavourable to the crops, especially during the post-liberalisation period. The study, however, establishes no causal link between liberalisation-induced growth in imports on the one hand and the fall in prices on the other.

To sum up, economic liberalisation brought dramatic changes in the role of the government in the sphere of agriculture. Earlier the government used to play an important role in the regulation of demand and supply factors and thereby the prices. In the new scenario, agricultural commodity prices in the country would be greatly influenced by the developments in the world market. The environment of globalisation and the augmented role of global market forces are also problematising the role of government and its institutions. The premise of isolationism, which defined various facets of government policy, is no longer valid. In fact, most policy measures and modes of government intervention have become redundant in the new scenario. This calls into question the role of the government in general and that of the commodity boards, export promotion councils, and various other organisations. However, one major role that the state and its institutions may assume in the future would be that of facilitating the process of decision-making by the farming units. The new role would definitely be different from the earlier one where the government would take many decisions on its own. The state machinery may be used to gather informational inputs from the global marketplace and to disseminate it to the ultimate decision-makers. This role assumes importance in the absence of alternative mechanisms to handle the problem of information flow to the millions of farmers who are supposed to make informed decisions. In other words, the state would be asked to play a role in minimising the risk of market failures that may occur on account of lack of reliable information. The assumption of perfect information would appear to be too strong in the case of the international market for agricultural products, especially because of the involvement of the millions of small holders.

1. Rubber and coconut together account for around 60 per cent of the gross cropped area in the state. These crops, owing to their long gestation periods, do not allow quick shifts in the cropping pattern in accordance to the changes in prices.
2. We decided to focus on the issue of market access for two reasons. First, as many studies have already argued, India's reliance on policy measures that affect domestic support or export competition has been very low when compared to the developed countries (Gulati, 1998; Jha, 2001). Second, policy tools affecting market access—such as tariff and non-tariff measures—are supposed to be more trade-distorting than the domestic measures (Corden, 1974). As such the process of integration of the domestic economy with the international market would depend primarily on the question of market access.
3. The real prices are computed as ratios of the price of a commodity to the price deflator. The real prices are then converted into an index with the 1980 as the base year (1980 price = 100).
4. One generally noted problem with this database has been the frequent shifts in the system of trade classification used. During the period of this study, a new system of classification (the harmonised system) was introduced in 1987–88. Therefore, we have confined our analysis mainly to the period since 1987–88.
5. The most important source of data on agricultural prices is *Agricultural Prices in India (API)*, published annually by the Directorate of Economics and Statistics, Department of Agriculture and Cooperation, of the Union Ministry of Agriculture. The most important problem with the *API*, however, is the delay in its publication of the reports. As the available data from *API* is not up-to-date, the analysis uses data published by the respective commodity boards.
6. The data in *Rubber Statistics* is provided for five different grades of rubber. Until 1995–96, the quality grades were named RMA1, RMA2, RMA3, RMA4 and RMA 5. Of these, RMA1 was the best quality grade of rubber and RMA5 was the poorest quality grade. In 1995–96, domestic grades of rubber were renamed in line with the international standards as grades of RSS (ribbed smoked sheets). The new names are RSS1, RSS2, RSS3, RSS4 and RSS5, and they correspond to the earlier RMA grades.
7. Kottayam is the biggest market for NR in Kerala. Also, RSS4 is the most common grade in terms of the volume of domestic production (Zant, 1998). Trading of RSS4 grade rubber has constituted more than 50 per cent trade in RSS grade rubber.

8. Malaysia (Kuala Lumpur) is the biggest trading centre for rubber in the world. Moreover, whenever the domestic rubber manufacturers face the inadequacy of RSS4 grade rubber, they import RSS3 grade rubber from abroad.
9. Alleppey, Kochi and Kozhikode are the major markets for coconut and coconut products in Kerala (Mathew, 1978; Mathew, 1994). Among these markets, Kozhikode and Alleppey are the biggest markets for coconut.
10. The prices of coconut and coconut oil in different centres are influenced by the price of coconut oil at Kochi. Large amount of transactions takes place in Alleppey and Kozhikode also. It has been found that the prices in different centres typically move together. Moreover, there is no significant inter-state variation in the prices of coconut oil (Mathew, 1978).
11. The data on world prices is compiled by the Asian and Pacific Coconut Community and published in the *Coconut Statistical Yearbook*. The Coconut Development Board reproduces this data in *Coconut Statistics*.
12. The issue of export subsidies in the rubber sector, however, will have to be seen in the framework of the WTO Agreement on Subsidies and Countervailing Measures (ASCM) because it was treated as an industrial product.
13. For instance, the STC has procured about 9,600 tonnes of rubber in August 1997 and 20,000 tonnes of rubber in March 2000 from the market and sold the entire quantity to the exporters of rubber in lieu of import against the Advance License Scheme.
14. A realistic estimation will have to include expenditure incurred by other agencies as well. Since state-level agencies play an active role in the case of coconut, an estimate excluding their programmes could be misleading. However, it is unlikely that the product-specific support extended to the coconut sector exceeds the WTO stipulated limit of 10 per cent of the value of total production.
15. Tariffs resulting from the 'tariffication' process, together with the other tariffs, are to be reduced by a simple average of 36 per cent in the case of developed countries over six years and 24 per cent over 10 years in the case of developing countries (Government of India, 2001).
16. The norms for fixing bound rates for industrial products were based the base duty, i.e., basic duty, plus other duties and charges as on 1 January 1990. The norm was to fix 25 per cent for tariff lines with base duty below 40 per cent and 40 per cent for those tariff lines for which the base duty was at or above 40 per cent. But the rubber products were denied even the benefits accorded to the industrial products. For 'latex pre-vulcanised and not' (HS code 400110) and for some major rubber products from HS 4010 to 4017 the tariff rates were kept unbound. For all other products, the bound rates varied between 25 per cent and 40 per cent. Interestingly, if norms for fixing bound rates were followed, all the NR items could have been bound at 40 per cent. Note that the base duties for 'smoked sheets' (RSS), Technically Specified

Natural Rubber (TSNR), and 'other NR, except latex' ranged between 85 to 145 per cent. In spite of such high base rates, the tariff rates for processed dry forms of NR were bound at a lower level. Notably, in the case of all other tariff lines belonging to Chapter 40 of HS, the bound rates were fixed according to the set norms.

17. Import penetration ratio (import as a percentage of apparent consumption) = import as a percentage of gross output + external imports – external exports.
18. *Indian Rubber Statistics* does not provide any disaggregated data on imports of rubber. We have used the DGCI&S import data from 1987–88 onwards. The DGCI&S is the main source of import and export data but its trade classification has changed from 1987–88 onwards. As a result, we could not use the DGCI&S data for the entire period of analysis.
19. The decline in the imports of SR as such in the late 1990s could be attributed to the sharp reduction in the imports of Isobutene-Isoprene (butyl) Rubber (IIR) grade of SR. Moreover, the imports of other grades of SR like Halo-Isobutene-Isoprene Rubber (CIIR/BIIR), Acrylonitrile-Butadiene Rubber Latex, and Isoprene Rubber have also declined during the terminal years of the 1990s, whereas the sharp increase in imports was observed in the case of mixtures of NR or SR with NR grade of SR during the same period.
20. The amount of imports of 'RR in primary forms' was 18,162 kg in 1987–88 and it has increased to 347,280 kg in 1998–99 and decreased drastically to 21,936 kg in 2000–01. Imports of 'waste, parings and scrap of rubber' was 147,150 kg in 1987–88 and it has increased to 2,155,331 kg in 1999–2000 and declined drastically in the next year to 95,482 kg. Imports of 'compounded rubber' were 79,789 kg during 1987–88 and increased up to the level of 1,002,310 kg in 1999–2000 but declined in the next year to 910,750 kg. Among the different types of RR, 'articles of unvulcanised rubber' and 'vulcanised rubber other than hard rubber' have shown a consistent increase throughout the period.
21. The fluctuations were more pronounced in the first half of 1990s, while the second half was characterised by more or less sustained and steep increase in the imports of palm oil. From around 73,000 tonnes in 1993–94, the imports of palm oil increased to 3,055,000 tonnes in 2000–01. The import of palm oil in 1993–94 was indeed abnormally low. But as the imports over the period suggest, this does not reduce the importance of higher growth in the imports registered during the second half of the 1990s. Among different grades of palm oil, imports of the crude variety, imported mainly from Malaysia and Indonesia, present a desperate pattern of growth. In fact, except for 1988–89 and 2000–01, in all other years, imports of the crude variety were lower than the level of imports recorded in 1987–88. The imports of refined variety, imported mainly from Australia and Belgium, present a more stable pattern. Imports of the refined variety appear to have boomed during the later half of the 1990s.

22. See www.foodmarketexchange.com/datacenter/product/fruit/coconut/dc_pi_ft_coconut02.htm
23. The ratios are being calculated by taking the square of $(PW-PD)/PW$, i.e., world price minus domestic price as a percentage of world rice.
24. For analysing the instability in prices, we have made use of the methodology developed by Boyce (1987). This method is based on estimation of an exponential growth model and testing for the existence of a regular time trend in the proportional deviation between actual and predicted values. If p represents the prices and p' represents the predicted values of prices based on a semi-log regression of prices on time, the proportional deviation is measured as $(p - p')/p'$. In the next step, we run a regression between the proportional deviation and time to see if there is a statistically significant positive or a negative trend. A positive trend will indicate that the instability is increasing over the reference period while a negative trend will indicate that the instability has declined over the reference period. An insignificant coefficient will mean that no discernible trend exists in the instability of prices.
25. The observed value of the F-statistic for the null hypothesis that the (-1.26 per cent growth in prices) period 1993–2001 is similar to the (4.98 per cent growth in prices) period 1980–92 was 11.52 and it was lower than the critical value of F-statistic (3.47). We therefore rejected our null hypothesis.
26. The pattern of growth of prices has been analysed using the annual price data. In order to analyse the growth of prices, we have used the chow test and the dummy variable method. Chow test is used to see whether there is a structural change in the price series. Structural change means that the between two periods of analysis, there has been a change in the intercept or in the slope (or both) of the growth equation. Dummy variable method is an alternative to the chow test way of measuring the structural change. The chow test does not explicitly tell which coefficient, intercept, or slope is different between the two periods, or if both are different in the two periods. In this respect, the dummy variable approach has a distinct advantage. By applying the dummy variable method, one can detect whether the structural instability was due to the significant difference in intercept or slope or both in the series. Moreover, one can estimate the growth rates in two sub-periods by running a single regression in the form of:

$$\ln Y_i = \alpha_1 + \alpha_2 D_i + \beta_1 X_i + \beta_2 (D_i X_i) + u_i$$

where Y_i is price and X_i is time and where $D_i = 1$ for observations in the first or pre-liberalisation period, and zero for the post-liberalisation period. α_2 and β_2 are differential slope coefficients. If both are statistically significant, it indicates that the growth in two periods is different. The antilog of β_1 and β_2 in the above equation gives estimates of compound annual growth in the two periods [compound growth rates are antilog $(\beta) - 1$].

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IV

INDUSTRY AND POWER

THE STRUCTURE AND GROWTH
OF KERALA'S INDUSTRY DURING
THE POST-LIBERALISATION PERIOD
K.P. Rajesh

9

INTRODUCTION

The regional economy of Kerala¹ is internationally popular for its unique development experience, which is often known as the 'Kerala model' of development. In the paradoxical development pattern of Kerala's economy, a very high standard of living, even comparable to some developed economies, co-exists with a very low per capita state domestic product (SDP). The most important reason for the low level of per capita SDP in the state is the poor performance of commodity producing sectors like industry and agriculture. Kerala is one of the industrially backward states in India.

After Independence, India adopted a development strategy in which the industrial sector was highly controlled and regulated through licensing. The poor growth of industrial production has induced the Government of India to introduce partial liberalisation in the industrial sector in the early 1980s. The process of liberalisation has been accelerated and the structural reforms in industrial and trade policies have been initiated since 1991, following a serious macroeconomic crisis. The New Industrial Policy (NIP) Statement, 1991, has announced a wide range of measures for the deregulation, liberalisation, and privatisation of the industrial sector.² Under the federal system, not only the central government but the state governments also have certain functions in industrial development. In the light of the NIP of India, Kerala also introduced significant changes in its own industrial policy. In this chapter, we try to analyse the structure and growth of Kerala's industry in a comparative framework with a special focus on the 1990s (the liberalisation period). The period of analysis for our paper is 1981–82 to 1999–2000. For comparing the liberalisation era with the previous decade, we have divided the 19-year period into two sub-periods: (a) 1981–82 to 1990–91 (the 1980s) and (b) 1991–92 to 1999–2000 (the 1990s). The first and second sub-periods represent the

pre-liberalisation and liberalisation period, respectively. Our analysis gives special emphasis to the latter phase, which represents the liberalisation period.

KERALA'S POSITION ON THE INDUSTRIAL MAP OF INDIA

Table 9.1 presents selected indicators of industrial development of major Indian states during the 1990s with a view to identify the position of Kerala in the factory sector of Indian industry. The indicators are averages of the variables³ for the period 1991/92 to 1999–2000, calculated from the data collected from the *Annual Survey of Industries (ASI)*. According to the number of factories and total employment, Kerala ranks 10th; in terms of the value of industrial output, gross value added (GVA), and total emoluments, Kerala's position is 14th, and in terms of fixed capital used in the industrial sector, Kerala's rank is only 16th among the 25 major Indian states and six Union Territories, including the national capital territory of Delhi. Maharashtra, Gujarat and Tamil Nadu are the three industrially developed states according to the industrial development indicators shown in the table.

Kerala, with a share of 3.43 per cent of the total Indian population, accounted for only 2.19 per cent of the gross output and GVA in the factory sector of Indian industry during the 1990s. Kerala's share in the fixed capital of the all-India factory sector was still lower at 1.69 per cent. However, the state's share of 3.45 per cent in the factories and 3.75 per cent in the total employment in the factory sector is comparable to its share in the national population. The three industrially forward states—Maharashtra, Gujarat and Tamil Nadu—together account for nearly 40 per cent share in the factories, fixed capital, total persons employed, and gross value of output in the organised Indian industry. This evidence make it clear that Kerala is still an industrially backward state in the country.

Contribution of the Industrial Sector to the State Income

The sectoral contributions to the net domestic product (NDP) of the country and net state domestic product (NSDP) of Kerala during the last two decades along with their corresponding growth rates are shown in Table 9.2.⁴ As may be noted from the table, the industrial sector accounted for 20.4 per cent of the NSDP of Kerala during the 1990s, of which

Table 9.1
Selected Indicators of Industrial Development (Average during 1991-92 to 1999-2000)

States/Union Territories	Number of factories (units)	Share (percent-age)	Value of gross output (Rs. lakh)*	Share (percent-age)	Gross value added (Rs. lakh)*	Share (percent-age)	Fixed capital (Rs. lakh)*	Share (percent-age)	Total persons engaged (number)	Share (percent-age)
Andhra Pradesh	16,394	12.91	34,47,469	6.02	7,75,896	6.38	22,58,315	7.97	1,001,490	11.80
Assam	1,606	1.27	4,73,338	0.83	1,13,542	0.93	2,06,381	0.73	129,203	1.52
Bihar	3,152	2.48	16,08,632	2.81	4,91,686	4.04	10,22,121	3.61	283,308	3.34
Delhi	3,683	2.90	10,20,287	1.78	2,01,617	1.66	1,99,686	0.70	154,147	1.82
Goa	320	0.25	2,61,195	0.46	59,275	0.49	96,955	0.34	22,480	0.26
Gujarat	12,987	10.23	63,11,486	11.02	14,02,079	11.53	39,11,048	13.81	815,618	9.61
Haryana	3,700	2.91	21,17,892	3.70	3,92,769	3.23	7,61,842	2.69	312,441	3.68
Himachal Pradesh	447	0.35	2,63,550	0.46	82,545	0.68	2,31,450	0.82	57,122	0.67
Jammu and Kashmir	326	0.26	85,157	0.15	14,330	0.12	25,939	0.09	22,705	0.27
Karnataka	6,624	5.22	25,75,332	4.50	6,58,221	5.41	14,64,626	5.17	510,086	6.01
Kerala	4,382	3.45	12,56,362	2.19	2,66,691	2.19	4,77,787	1.69	318,115	3.75
Madhya Pradesh	4,000	3.15	27,36,718	4.78	6,31,937	5.20	17,16,519	6.06	424,646	5.00
Maharashtra	18,662	14.70	1,07,80,918	18.83	25,93,026	21.32	47,93,776	16.92	1,371,204	16.15
Manipur	66	0.05	4,112	0.01	15,87,148	0.01	4,528	0.02	2,109	0.02
Meghalaya	33	0.03	6,982	0.01	32,67,649	0.03	14,929	0.05	4,075	0.05
Nagaland	121	0.10	9,267	0.02	21,53,984	0.02	9,732	0.03	4,518	0.05

(contd.)

Table 9.1 (contd.)

States/Union Territories	Number of factories (units)	Share (percent-age)	Value of gross output (Rs lakb)*	Share (percent-age)	Gross value added (Rs lakb)*	Share (percent-age)	Fixed capital (Rs lakb)*	Share (percent-age)	Total persons engaged (number)	Share (percent-age)
Orissa	1,650	1.30	9,05,049	1.58	2,42,442.5	1.99	10,68,393	3.77	174,276	2.05
Pondicherry	321	0.25	2,02,976	0.35	47,678.38	0.39	78,741	0.28	29,481	0.35
Punjab	6,618	5.21	19,23,038	3.36	3,61,250.8	2.97	9,50,555	3.36	422,413	4.98
Rajasthan	4,556	3.59	17,09,834	2.99	3,75,159	3.09	10,36,678	3.66	270,136	3.18
Tamil Nadu	18,890	14.88	54,03,911	9.44	11,94,547	9.82	25,16,147	8.88	1,156,358	13.62
Tripura	204	0.16	10,339	0.02	3,010.117	0.02	8,544	0.03	8,518	0.10
Uttar Pradesh	10,345	8.15	43,79,325	7.65	10,59,762	8.72	30,49,670	10.77	746,889	8.80
West Bengal	6,149	4.84	25,23,868	4.41	6,08,165.8	5.00	17,76,544	6.27	748,284	8.82
Jharkhand	1,403	1.10	14,27,069	2.49	5,38,427.7	4.43	10,52,817	3.72	176,435	2.08
Chhattisgarh	1,305	1.03	9,25,764	1.62	2,51,787.2	2.07	6,60,676	2.33	99,958	1.18
Uttaranchal	665	0.52	2,33,546	0.41	47,340.17	0.39	1,27,117	0.45	40,320	0.47
Andaman and Nicobar	46	0.04	8,607	0.02	2,059.913	0.02	5,458	0.02	5,805	0.07
Chandigarh	322	0.25	76,830	0.13	12,366.66	0.10	13,935	0.05	13,328	0.16
Dadra and Nagar Haveli	334	0.26	3,55,463	0.62	67,429.29	0.55	1,05,673	0.37	14,175	0.17
Daman and Diu	429	0.34	2,26,834	0.40	45,358.25	0.37	59,727	0.21	16,048	0.19
All-India	126,939	1,000	5,72,50,326	1,000	12,160,155	1,000	2,83,24,943	1,000	8,488,455	1,000

Source: Various issues of the *Annual Survey of Industries*.

Note: *Constant (1993-94 = 100) prices.

Table 9.2
Net State Domestic Product (NSDP) of Kerala and Net Domestic Product (NDP) of India: Sectoral Contribution and Growth

Sector/sub-sector	1981-82 to 1990-91		1991-92 to 2000-01		1981-82 to 2000-01							
	India		Kerala		India							
	%	GR	%	GR	%	GR						
Primary	34.0	3.6	39.5	3.3	28.9	3.9	31.9	3.2	30.6	3.7	34.7	3.2
Secondary	19.3	4.5	21.4	6.3	20.4	6.9	22.2	5.6	20.0	5.7	21.9	5.9
Manufacturing	11.8	4.5	14.6	6.7	11.9	6.0	15.3	5.5	11.9	5.3	15.1	6.1
Registered manufacturing	6.4	4.7	8.8	7.8	6.2	6.0	9.6	5.3	6.3	5.4	9.3	6.6
Unregistered manufacturing	5.3	4.0	5.8	5.1	5.7	6.4	5.7	5.8	5.6	5.2	5.7	5.4
Tertiary	46.7	4.4	39.1	6.5	50.7	7.8	45.9	7.7	49.4	6.1	43.4	7.1
NSDP/NDP	100	4.1	100	5.1	100	6.5	100	5.8	100	5.3	100	5.5

Sources: Government of India, 2002; Kerala State Planning Board, various.

Notes: % denotes percentage to the NSDP or NDP; GR is exponential growth rate. All the growth rates are significant at the 1 per cent level.

11.9 per cent was the contribution of manufacturing sector. It was lower than the 22.2 per cent contribution of secondary sector and 15.3 per cent contribution of the manufacturing sector to the all-India NDP during the same period. Compared to the 1980s, the contribution of secondary as well as the manufacturing sector to the NSDP of the state was greater in the 1990s but only by 1.1 percentage point. The manufacturing sector comprises two sub-sectors—registered manufacturing and unregistered manufacturing. Within manufacturing, the registered manufacturing contributed more to the NSDP of Kerala as well as to the NDP of India during both the decades but in contradiction to the national trend, a structural change in terms of the organisation of production in the manufacturing sector in Kerala may be noticed during the 1990s. The percentage share of the registered manufacturing in Kerala's NSDP has marginally declined and that of the unregistered sector has slightly increased during the last two decades, while the reverse has happened in the case of the national economy. The service sector is the largest contributor to the NSDP of Kerala during both the decades under our consideration.

It can be seen from Table 9.2 that, during the 1980s, the growth rate of the secondary sector and that of the manufacturing sector (both 4.5 per cent) in Kerala was lower than the corresponding all-India growth rates of the sectors. But during the liberalised regime the secondary sectors as well as the manufacturing sector in Kerala are growing faster than the national average. The secondary sector growth rate in Kerala has steadily increased from 4.5 per cent during the 1980s to 6.9 per cent during the 1990s, whereas the sector's growth rate at the all-India level has declined from 6.3 to 5.6 per cent during the same period. The same trend is observed in the case of the overall manufacturing sector of Kerala and all-India. However, the unregistered manufacturing sector in India is an exception where the growth rate during the 1990s has not declined as compared to the 1980s; rather it has increased from 5.1 to 5.8 per cent. The service sector is not only the largest contributor to Kerala's NSDP but also the fastest growing sector in the state economy in the 1990s (having grown at the rate of 7.8 per cent per annum).

District-wise Distribution and Growth of Registered Working Factories and Employment

In this section, we try to analyse the district-wise industrialisation status in Kerala in terms of the available indicators. Data is available only for

the formal (registered) sector and is limited to two indicators—the number of factories and the number of persons employed.

Table 9.3 shows that there were 18,621 registered working factories in Kerala as on 31 March 2001. Of this, 18,068 factories (97.03 per cent) were in the private sector and the remaining 553 (2.97 per cent) were in the public sector. The total number of working factories in 1981 was only 9,106, which had increased to 13,255 by 1991 and further to 18,621 by 2001. During the 1990s, 96.85 per cent of the working factories were in the private sector while only 3.15 per cent were in the public sector.

Period-wise growth rates of the number of factories were estimated for the pre-liberalisation and post-liberalisation periods using a kinked exponential model⁵ and the entire period's growth rate was estimated using the semi-log time trend model. The district-wise growth rates of the number of the factories in 1980s, the 1990s, and the two decades together are displayed in Table 9.3. As may be seen from the table, there is no significant change in the growth rate of the total working factories during

Table 9.3
District-wise Distribution and Growth of
Registered Working Factories in Kerala

<i>District</i>	<i>Number of factories as on 31 March 2001</i>	<i>Percent- age share</i>	<i>Growth rate</i>		
			<i>(1981–90)</i>	<i>(1991– 2001)</i>	<i>(1981– 2001)</i>
Thiruvananthapuram	894	4.8	7.1**	3.6**	5.2**
Kollam	1,902	10.2	4.0**	5.0**	4.5**
Pathanamthitta	559	3.0	22.8**	1.7	8.8**
Alappuzha	1,222	6.6	2.2**	4.4**	3.4**
Kottayam	1,306	7.0	2.7**	2.9**	2.8**
Idukki	327	1.8	6.8**	0.9	3.7**
Ernakulam	2,944	15.8	1.8**	4.1**	3.1**
Thrissur	2,571	13.8	4.5**	4.0**	4.2**
Palakkad	1,981	10.6	4.0**	4.0**	4.0**
Malappuram	1,004	5.4	9.0**	2.6**	5.6**
Kozhikode	1,773	9.5	2.8**	1.4**	2.0**
Wayanad	143	0.8	11.3**	1.5	5.2**
Kannur	1,726	9.3	-2.6**	4.1**	1.0*
Kasargode	269	1.4	77.8**	-0.1	18.0**
Total	18,621	100.0	3.6**	3.6**	3.6**

Source: Kerala State Planning Board, various.

Notes: *Indicate significance at 5 per cent.

**Indicate significance at 1 per cent.

the 1980s and the 1990s; the estimated growth rate was 3.6 per cent for both the decades. The number of private sector factories in Kerala was increasing at a rate of 3.15 per cent per annum during the 1990s, while that of the public sector factories was declining at a rate of 1.85 per cent per annum. This might be due to the introduction of liberalisation and privatisation measures in the 1990s.

Now let us look into the district-wise distribution and growth of registered working factories in Kerala during the last two decades. It has been observed from Table 9.3 that the highest number of factories are concentrated in Ernakulam district (15.8 per cent), followed by Thrissur (13.8 per cent), Palakkad (10.6 per cent) and Kollam (10.2 per cent). The lowest number of factories are in Wayanad district (0.8 per cent).

It can be seen that the highest growth rate of 5 per cent in the number of factories is recorded in Kollam district in the 1990s, which is a percentage point greater than the previous decade's growth rate in the district. The lowest growth rate of -0.1 per cent is recorded in Kasargode and here we observe a drastic decline of 77.79 percentage points as compared to the growth rate witnessed in the 1980s. In Kannur district, the negative growth rate (-2.6 per cent) during the 1980s has turned into a relatively high positive growth rate (4.1 per cent) in the 1990s.

Acceleration in the growth rate during the 1990s, as compared to the 1980s, has been observed in districts like Ernakulam, Kannur, Alappuzha, Kollam and Kottayam. On the other hand, deceleration has been observed in districts like Kasargode, Pathanamthitta, Wayanad, Malappuram, Idukki, Thiruvananthapuram, Kozhikode and Thrissur. No change in the growth rate during the two decades has been observed in Palakkad district. Thus, it is clear that even though there was no significant change in the overall growth rate of the number of factories in Kerala during the last two decades, there was wide variation in the growth rates across different districts in the state.

As may be seen from Table 9.4, as on 31 March 2001, there were 439,873 people employed in working factories in the state. In 1981, there were 300,515 people employed in the factory sector in Kerala. By 1991, the number has increased to 391,964. During the 1990s, 72.3 per cent people were working in the private sector and the residual 27.7 per cent were in the public sector. The estimated growth rate shows that there was no statistically significant growth in the number of employees in the factory sector of Kerala during the 1990s. But the estimated growth rate for the 1980s was 3.8 per cent. This insignificant growth of employment may perhaps have been due to the introduction of capital-intensive

Table 9.4
District-wise Distribution and Growth of Employment
in Registered Working Factories in Kerala

District	Number of employment as on 31 March 2001	Percent- age share	Growth rate		
			(1981-90)	(1991- 2001)	(1981- 2001)
Thiruvananthapuram	29508	6.7	6.4**	-0.1	2.9**
Kollam	135566	30.8	2.4*	0.5	1.4**
Pathanamthitta	13207	3.0	43.1**	-0.8	13.9**
Alappuzha	26688	6.1	1.7	3.7**	2.8**
Kottayam	17954	4.1	7.2**	-0.5	3.1**
Idukki	7832	1.8	6.9**	-1.3	2.5**
Ernakulam	64982	14.8	4.6**	1.0	2.6**
Thrissur	36763	8.4	5.7**	0.7	3.0**
Palakkad	24381	5.5	7.6**	0.9	4.0**
Malappuram	13354	3.0	9.5**	1.7	5.3**
Kozhikode	25363	5.8	3.9**	-1.3	1.1
Wayanad	17101	3.9	11.0	16.3**	14.3**
Kannur	23791	5.4	-0.2	0.6	0.2
Kasargode	3203	0.7	84.4**	1.9	21.0**
Total	439873	100.0	3.8**	1.5	2.5**

Source: Kerala State Planning Board, various.

Notes: *and ** indicate significance at 5 per cent and 1 per cent, respectively.

techniques in the 1990s. However, the precise reasons for such a phenomenon in the 1990s have to be investigated.

District-wise employment status and growth in the number of persons employed in registered working factories during the last two decades are shown in Table 9.4. Even though only 10.2 per cent factories are located in Kollam district, it provides the highest percentage of employment (30.8 per cent) in Kerala. It may be due to the adoption of more labour-intensive technology, particularly in the cashew and coir factories in the district. In terms of number of employees, Kollam is followed by Ernakulam (14.8 per cent) and Thrissur (8.4 per cent). The least people are employed in Kasargode district (0.7 per cent).

The overall growth rate of the employment estimated from the data collected from the *Economic Review* of Kerala⁶ shows that there was no statistically significant growth in employment in the 1990s but there was a significant growth rate of 3.8 per cent in the 1980s. Statistically

significant growth rates of number of employees in the 1990s have been found only for Wayanad (16.3 per cent) and Alappuzha (3.7 per cent). Negative but statistically insignificant growth rates have been estimated for districts like Kozhikode, Idukki, Pathanamthitta, Kottayam and Thiruvananthapuram. The growth rates have been positive but statistically insignificant for the remaining eight districts. During the 1980s, the growth rate of employment was positive and significant for all the districts except Alappuzha, Wayanad and Kannur. The highest growth rate during the 1980s has been recorded in Pathanamthitta and the lowest significant growth rate in Kollam. A negative but statistically insignificant growth rate has been estimated in the case of Kannur.

The analysis shows the inter-district disparities in the industrialisation of Kerala. Industries and industrial employment in the state are concentrated in a few districts. Around 50 per cent of the factories and 60 per cent of the industrial employment is concentrated in four districts—Ernakulam, Thrissur, Palakkad and Kollam.

Structure and Growth of Industrial Production

In order to understand the impact of liberalisation on Kerala's manufacturing sector, we examine the structural change and growth of the manufacturing sector in the state in comparison with that of all-India for the period 1981–82 to 1999–2000. The period has been subdivided into two phases: (a) pre-liberalisation period (1981–82 to 1990–91) and (b) post-liberalisation period (1991–92 to 1999–2000). The analysis is primarily based on the two-digit industry level data (Government of India, 2001; NIC, 1987) collected from the *ASI*. The *ASI* covers only the registered factory sector. Unfortunately, no secondary source provides adequate data for the unregistered manufacturing sector in Kerala. All the variables in value terms like GVA, fixed capital, emoluments, etc., were converted into constant prices, by using appropriate deflators, before use in the analysis.

Production and Employment Structure

The two-digit industry-wise distribution of GVA⁷ in Kerala in comparison with that in all-India for the two sub-periods is presented in Table 9.5. This reveals the structure of industrial production in Kerala in the pre- and post-liberalisation periods. It has been observed that the largest share (31.6 per cent) of the total GVA in the organised manufacturing sector of Kerala in the post-reform period has been contributed by the food

Table 9.5
Relative Shares (Average) of Two-Digit Industries in the Total Gross Value Added in Kerala
and All-India Manufacturing in the Pre- and Post-Liberalisation Periods

Industry	1981-82 to 1990-91		1991-92 to 1999-2000	
	Kerala	India	Kerala	India
Food products (20-21)	24.6	17.4	31.6	12.3
Beverages and tobacco (22)	3.7	2.6	1.8	2.1
Textiles (23 + 24 + 25)	5.5	11.8	3.5	6.9
Textile products (26)	2.1	1.0	0.3	2.3
Wood and wood products (27)	2.8	0.7	0.9	0.4
Paper and paper products (28)	6.4	4.1	5.1	2.8
Leather and leather products (29)	-	0.6	0.4	0.7
Chemicals and chemical products (30)	18.4	13.3	11.8	14.8
Rubber plastic, petroleum and coal products (31)	17.4	6.7	19.0	10.8
Non-metallic mineral products (32)	3.7	4.8	2.6	4.1
Basic metal and alloys (33)	3.1	11.6	2.1	10.7
Metal products (34)	1.3	2.7	0.6	2.1
Machinery and equipment (35 + 36)	7.8	14.8	8.0	12.2
Transport equipment (37)	2.1	6.9	1.6	6.2
Other manufacturing (38)	1.0	0.9	0.7	1.5

Source: Various issues of the *Annual Survey of Industries*.

Notes: (a) LQ1 and LQ2 are location quotients (with respect to the GVA) of industries in Kerala for the first and second period, respectively;

(b) Figures in parentheses are two-digit industry code (NIC 1987).

products sector (NIC-31). This has been followed by the rubber, plastic, petroleum and coal products group (NIC-31) with a 19 per cent share; the chemical and chemical products industry is in third position with its share of 11.8 per cent. Thus, these three industrial groups taken together contribute more than 62 per cent share of GVA in the Kerala manufacturing during the post-liberalisation period. The machinery and equipment industries (8 per cent) and the paper and paper products group (5.1 per cent) are the other important contributors to the total GVA of Kerala in the 1990s. During the 1980s also, the largest share (24.6 per cent) in the total GVA in Kerala's manufacturing was by the food products sector. However, this was 7 percentage points lower than its share in the 1990s. The second and third largest contributors to the industrial GVA in the 1980s were the chemicals and chemical products (18.4 per cent) and rubber, plastic, petroleum and coal (17.4 per cent) groups. But the share of these two industrial groups has fallen in the 1990s. In the 1980s also, the collective contribution of these three sectors to the industrial value added in Kerala exceeded 60 per cent. Like in the 1990s, the machinery and equipment industries (7.8 per cent) and the paper and paper products group (6.4 per cent) were the other two important contributors to the total GVA of Kerala manufacturing in the 1980s as well.

It is clear from Table 9.5 that the capital goods industries have not had an adequate share in the total GVA of Kerala manufacturing during the last two decades. The average share of capital goods industries was only around 10 per cent during both the 1980s and the 1990s. The industrial production structure in Kerala is concentrated mainly in natural-resource-based consumer or intermediate goods industries.

Location quotients with respect to the GVA have been computed for comparing the concentration of industry in Kerala to the national average.⁸ If the location quotient is greater than unity, it indicates a relative concentration of the industry in the state. If it is less than unity, it indicates less than proportionate share of the state. If it is equal to unity, it implies that the share of the industry in the state is in accordance with the national average. The location quotients presented in Table 9.5 clearly indicate that the basic industrial groups, where the location quotients exceed unity, in Kerala manufacturing during the last two decades are food products, wood and wood products, paper and paper products and rubber, plastic, petroleum, and coal products. Beverages and tobacco and textiles were the other two groups of basic industries in Kerala during the 1980s but not during the 1990s. These industries only have adequate or more than proportionate share in the total manufacturing as compared to the all-India average.

This clearly indicates that the production structure in Kerala's industry is not diversified as compared to the national average but is concentrated in a few industries. Liberalisation policies of the 1990s do not seem to have a positive effect in terms of diversification of the production structure of the Kerala industries.

Now let us examine the employment structure in Kerala industries in comparison to India. The food products manufacturing sector employed the largest number (31.6 per cent) of factory employees in Kerala in the 1990s (Table 9.6). The same was the situation in the 1980s but with a lower share (24.6 per cent). The other major employment generating industries in both the periods were the rubber, plastic, petroleum and coal products group, chemicals and chemical products and machinery and machine tools. These four industry groups together accounted for more than 70 per cent of the employment in Kerala during the 1990s and more than 68 per cent in the 1980s. Table 9.6 also provides location quotients with respect to the employment in different two-digit industries in Kerala. The basic employment generating industries in Kerala in the 1980s, where the location quotients exceed unity, were food products (20–21), wood and wood products (27), beverages and tobacco (22), textile products (26), rubber, plastics, etc. (31), and non-metallic mineral products (32). But during the 1990s, there were only four basic employment generating industry groups (NIC: 20–21, 27, 31 and 22) in Kerala as compared to all-India average. Thus it is clear that the employment generation in Kerala manufacturing has been concentrated in a few industries during the 1980s and the degree of concentration has been further increased during the post liberalisation period.

It is interesting to examine whether there is any asymmetry between the shares of different two-digit industries in the value added and the shares of the corresponding industries in the employment in Kerala manufacturing during the 1990s. In order to examine it, we have computed a ratio between the share of each two-digit industrial group in the total employment and the share of the corresponding industry group in the total value added. The computed ratio is found to be exceeding unity in seven industry groups (NIC: 20–, 22, 23 + 24 + 25, 26, 27, 32 and 34) and it was less than unity in the case of the remaining eight industry groups. This clearly indicates the large asymmetry between the shares in employment and value added of different industries prevailing in Kerala. The ratios indicate that the seven industries in the first group (where the ratio is more than unity) generate the maximum employment as compared to their share in value added during the 1990s. The other eight industry groups

Table 9.6
Relative Shares of Two-Digit Industries in the Total Employment in Kerala and All-India Manufacturing in the Pre- and Post-Liberalisation Periods

Industry	1981-82 to 1990-91		1991-92 to 1999-2000	
	Kerala	India	LQ1	LQ2
Food products (20-21)	54.2	27.3	2.0	2.4
Beverages and tobacco (22)	7.2	5.4	1.3	1.0
Textiles (23 + 24 + 25)	6.2	17.9	0.3	0.4
Textile products (26)	1.9	1.6	1.2	0.3
Wood and wood products (27)	4.0	1.0	4.0	2.9
Paper and paper products (28)	3.5	3.7	0.9	0.9
Leather and leather products (29)	-	1.0	-	0.1
Chemicals and chemical products (30)	5.9	6.7	0.9	0.6
Rubber plastic, petroleum and coal products (31)	2.9	2.6	1.1	1.1
Non-metallic mineral products (32)	5.1	5.3	1.0	0.9
Basic metal and alloys (33)	1.3	7.8	0.2	0.2
Metal products (34)	1.3	2.6	0.5	0.3
Machinery and equipment (35 + 36)	4.3	10.0	0.4	0.3
Transport equipment (37)	1.4	6.2	0.2	0.2
Other manufacturing (38)	0.7	1.0	0.7	0.4

Source: Various issues of the *Annual Survey of Industries*.

Note: LQ1 and LQ2 are location quotients (with respect to the employment) of industries in Kerala for the first and second period, respectively.

(NIC: 28, 29, 30, 31, 33, 335 + 36, 37 and 38) in the second category generate lesser employment. For instance, the beverages and tobacco industry with a relatively lower share of 2.1 per cent in the total GVA has been employing 6.5 per cent of the total employees in Kerala manufacturing during the 1990s. Likewise, the wood and wood products group with a meagre 0.9 per cent contribution to the total GVA has been accommodating 2.6 per cent of the total employees. The food product industry with a 31.6 per cent share in total value added has been accepting 60.1 per cent of the total employees in the organised sector of Kerala manufacturing.

Growth of Output and Employment in Two-digit Industries

Table 9.7 shows exponential growth rates of value added in Kerala's and India's manufacturing sector at the two-digit industry level. The overall growth rate of GVA in the Kerala manufacturing in the post-liberalisation period has decelerated slightly to 5.2 per cent from 5.5 per cent recorded in the 1980s. Such a deceleration has been observed in all-India manufacturing too. But the growth rate in Kerala is much lower than the all-India growth rate in both the periods. The growth rates of GVA varied across the two-digit industries in Kerala and also in the same industry between the two periods. In 1980s, the growth rate varied from 12.9 per cent in rubber, plastic etc. (NIC 31) to significant negative growth of -10.8 per cent in textile products (26). The degree of variation in growth rates across the industries is comparatively low in the 1990s. The growth rate varied from a high rate of 20 per cent in food products to an insignificant negative growth of -4 per cent. Manufacture of food products, rubber, plastic etc., and transport equipment were the fast growing industry groups (with more than 10 per cent growth per annum) in Kerala in the 1990s. Insignificant growth rates have been recorded in the industry groups like 22, 26, 27, 29, 33, 34 and 38. From insignificant growth in the 1980s to highly significant growth of 20 per cent per annum in the 1990s, recorded in the food products sector, is the highest variation observed between two periods in individual industries. The GVA of the two important capital goods industries registered a higher growth compared to the 1980s. It is to be noted that the natural-resource-based consumer goods industries were the major growing sectors in the Kerala industry in the 1990s.

We have examined the growth pattern of employment in the two-digit industries in Kerala in the pre- and post-liberalisation periods and the results are presented in Table 9.7. The overall growth rate of employment

Table 9.7
Growth Rate of Gross Value Added and Total Employment in Kerala and All-India Manufacturing in the Pre- and Post-Liberalisation Periods

Industry code (NIC)	Growth rate of gross value added						Growth rate of employment					
	Kerala			India			Kerala			India		
	1980s	1990s	1990s	1980s	1990s	1990s	1980s	1990s	1990s	1980s	1990s	1990s
20-21	3.9	20.0**	0.4	9.3**	0.4	8.0**	-0.6	8.0**	1.1	-3.4		
22	12.3**	-6.8	7.0**	6.8**	7.0**	-15.6**	10.4*	2.6*	2.0			
23 + 24 + 25	6.0**	6.3**	2.5**	4.7**	2.5**	5.4**	-0.3	-1.5*	-0.2			
26	-10.8*	-0.4	15.5**	19.0**	15.5**	5.6	-10.1**	7.1**	11.8**			
27	-9.3*	4.4	5.1	1.6	5.1	2.9**	-4.2**	-2.2*	3.4*			
28	6.6*	9.4**	4.1**	5.0**	4.1**	7.0**	-2.1	-0.1	1.1			
29	-28.9	65.1	11.7**	11.7**	7.5**	51.8**	-34.8*	7.0**	2.2**			
30	4.5**	6.6**	9.8**	10.0**	9.8**	2.5*	1.3	1.7**	4.3**			
31	12.9**	18.6**	16.5**	13.9**	16.5**	8.5**	3.6**	3.9**	4.6**			
32	7.1**	4.7**	6.4**	9.0**	6.4**	1.4*	2.1**	1.4**	-0.1			
33	8.4*	4.6	11.2**	4.9**	2.9	3.7	2.9	0.2	0.9			
34	-2.4	6.2	8.6**	4.1**	0.6	-0.9	0.6	2.1**	2.5**			
35 + 36	7.5*	7.6*	7.2**	6.8**	1.3	0.7	1.3	1.4	2.0*			
37	-2.1	4.8**	10.0**	5.1**	1.5	-2.7	1.5	0.0	1.3			
38	12.6**	0.8	16.5**	12.5**	7.2**	-4.9	7.2**	3.7**	7.7**			
Total	5.5**	5.2**	7.2**	7.6**	1.0	2.4*	1.0	1.0	1.2			

Source: Various issues of the *Annual Survey of Industries*.

Notes: (a) * and ** indicate significance at 5 per cent and 1 per cent, respectively; (b) Here, the 1980s include 1981/82 to 1991-92 and the 1990s include 1991-92 to 1999-2000; (c) See Table 9.6 for the industry codes.

in Kerala has increased from relative insignificance in the pre-liberalisation period to a significant 2.5 per cent in the post-reform period.⁹ But there was no such significant growth in employment at the all-India level during this period. The growth rate varies across the industries during both the decades and the growth rate also changes in the same industry between the two periods. The growth rate in employment ranged from the highest level of 10.4 per cent in beverages and tobacco sector to the significantly negative -34.5 per cent in the 1980s. The highest employment growth of 51.8 per cent was registered in leather and related industries in the 1990s; rubber, plastic, etc., and food products were the other fast employment generating industries in Kerala in this period. Contrary to the 1980s, the lowest employment growth of -15.6 per cent was recorded in beverages and tobacco during the 1990s. The highest increase in growth rate compared to the 1980s was recorded in the leather-related group, followed by textile products and food products. On the other hand, the highest decline was registered in the beverages and related sector. At the all-India level, textile products were the fast employment generating industry in the 1990s. This was distantly followed by the other manufacturing groups, the rubber and related group and the chemicals group. The variation in the growth rate of employment across different industries in Kerala is less in the 1990s than in the 1980s. In contrast to the Kerala situation, the all-India employment in food products sector has been declining at a rate of 3.4 per cent per annum in the post-reform period.

Our analysis shows that the initiation of liberalisation measures has increased the growth rate in employment in Kerala in the 1990s. However, it should be noted that the growth rate of employment is less than half the growth rate of the GVA in Kerala's factory sector in the 1990s. But the situation is much worse at the all-India level, where there was no significant growth in the employment and, moreover, the growth rate in employment generation was one-sixth of the growth rate in the GVA in the post-liberalisation period. It should also be noted that there is a high degree of correlation between the growth rate of employment and that of the GVA in Kerala in the 1990s.

Distribution and Growth of Fixed Capital

In the 1980s, the highest concentration of fixed capital in Kerala was in chemical and allied industries (23.3 per cent) (Table 9.8), followed by rubber, plastic, etc. (20.4 per cent), and paper and paper products (12.2 per cent). But in the post-reform period, the largest concentration of the

Table 9.8
 Relative Shares of Two-Digit Industries in the Fixed Capital and the Growth Rate of
 Fixed Capital in the Manufacturing Sector of Kerala and All-India

Industry code (NIC)	Share in the fixed capital (percentage)				Growth rate of fixed capital			
	Kerala		India		Kerala		India	
	1980s	1990s	1980s	1990s	1980s	1990s	1980s	1990s
20-21	7.6	36.9	12.5	10.7	6.7*	35.3**	9.8**	8.0**
22	0.9	0.8	0.9	1.2	7.6**	12.1**	12.0**	16.6**
23 + 24 + 25	5.3	5.0	9.5	9.8	-0.6	18.0**	5.8**	16.5**
26	0.8	0.5	0.6	1.2	-10.6**	22.6**	13.7**	23.8**
27	1.5	1.1	0.3	0.5	-6.6*	18.9**	2.4	22.6**
28	12.2	8.2	4.7	3.8	-11.7**	20.0**	3.5*	14.6**
29	0.2	0.2	0.4	0.5	-4.9*	8.7**	10.2**	14.2**
30	23.3	17.3	17.5	18.6	7.7**	7.3**	8.4**	14.9**
31	20.4	15.3	6.7	8.6	7.6	4.5	9.6**	17.8**
32	4.7	4.3	6.8	7.2	12.3**	10.8*	11.3**	14.1**
33	3.7	2.9	22.8	22.0	10.6**	6.6	8.0**	12.3**
34	1.3	0.6	1.4	1.7	5.1	-0.6	10.3**	14.7**
35 + 36	7.9	4.5	8.8	7.8	5.0	1.9	7.8**	12.2**
37	9.2	2.0	6.3	5.5	-7.0**	-5.6**	3.4**	15.8**
38	0.9	0.3	0.7	0.8	9.2**	-13.9**	12.5**	13.9**
Total	100.0	100.0	100.0	100.0	4.3**	6.2**	7.7**	9.4**

Source: Various issues of the *Annual Survey of Industries*.

Note: * and ** indicate significance at 5 per cent and 1 per cent, respectively.

capital has changed to the food products sector, chemicals (17 per cent) and rubber, etc. (15.3 per cent) are in the second and third position, respectively. It shows that in the post-liberalisation period, nearly 70 per cent of the total fixed capital has been concentrated in the three industries listed above. At the all-India level, the fixed capital was concentrated in three industrial groups—basic metals, chemicals and food products—in both the decades. More than half the total fixed capital was concentrated in these three industries in both periods. It is apparent that the degree of industry-wise concentration of fixed capital is more in Kerala than in all-India in both the decades.

There was a significant growth of total fixed capital in Kerala from 4.3 per cent in the 1980s to 6.2 per cent in the 1990s (Table 9.7). The corresponding growth rates at the all-India levels were 7.7 per cent and 9.4 per cent. It means that the increase in the growth rates of the capital between the two decades is more in Kerala than at the all-India level. Similar to its relative share, the growth of fixed capital in Kerala also was the highest in the food products (35.3 per cent) in the 1990s. On the other hand, the highest decline (13.9 per cent) has occurred in the other manufacturing group in the 1990s. The variation in the growth rate of fixed capital across the two-digit industries in Kerala is less in the 1990s than in the 1980s, but it is apparently greater than the variation in the corresponding growth rates at the all-India level.

A careful examination of the relative shares of different industries in the fixed capital in the Kerala manufacturing and the corresponding industries' contribution to the GVA reveals a very strong positive association between the two in the post-liberalisation period, but no such association is visible between the growth rates of value added and that of the fixed capital. While the overall growth rate of fixed capital has increased from 4.3 per cent in the pre-liberalisation to 6.2 per cent in the post-liberalisation period, the corresponding overall growth rate of GVA has decelerated from 5.5 to 5.2 per cent in these periods. The standard correlation analysis of the industry-wise growth pattern of fixed capital and GVA in the 1990s also takes us to the conclusion that growth in the fixed capital was not a major contributor to the growth in value addition in the factory sector of Kerala during the post-liberalisation period.

Kerala's Share in the Investment Proposals in the 1990s

Lack of adequate private sector investment is one of the major weaknesses of Kerala's industrial sector. Kerala has always been a less attractive

destination for the private sector investors, both from India and abroad. The quantum of Industrial Entrepreneur Memoranda (IEM) and Letters of Intent (LoI) are the important indicators of the proposed investment in the economy. During the post-reform period (from August 1991 to April 2002), Kerala's share in the total IEM and LoI and the proposed employment through them in India was just around 1 per cent (Table 9.9). Kerala's share is very meagre compared to the other south Indian states like Andhra Pradesh (10.9 per cent), Tamil Nadu (6.4 per cent), and Karnataka (5.1 per cent). Kerala holds a weak 15th position in the total proposed investment during the post-liberalisation period. During the 1990s, Kerala received a total of 455 IEM, proposing investment worth Rs 7,963 crore and employment of 72,220 people, and 62 LoI proposing investment of Rs 2,557 crore and employment of 14,167 people. It may be noted from the table that more than half the total proposed investment for the country was concentrated in four major states—Maharashtra, Gujarat, Andhra Pradesh and Uttar Pradesh.

Kerala's share in the foreign direct investment (FDI) approvals in the post-reform period is worse and negligible at 0.5 per cent. There were a total of 264 foreign technical collaboration approvals for Kerala during the post-reform period (August 1991 to May 2002). Of these, 62 were technical and the rest 202 were financial. Kerala's share in the total foreign collaboration approvals of the country was only 1.2 per cent. As per the data available from the Kerala State Industrial Development Corporation (KSIDC), as in June 2002, there were 35 FDI companies implemented in Kerala and three were under implementation. Of the implemented companies, 15 are in Ernakulam district, 9 in Thiruvananthapuram, three in Palakkad, two in Alappuzha, and one each in Kannur, Kottayam, Kozhikode, Malappuram, Pathanamthitta and Thrissur. Of the three FDI companies under the implementation, two are in Kasargode and one in Kozhikode.

The analysis of investment proposals in Kerala verifies that Kerala is a not an attractive destination for either domestic or foreign investors. The analysis of the reasons for such a phenomenon is beyond the scope of this essay.

Wage Rates and Industrial Disputes

There is a general perception that the tendency of Kerala labourers to strike, their organisation under trade unions and the high cost of production mainly due to the high labour charges, inter alia, are the major

Table 9.9
Industrial Investment Proposals and Foreign Direct Investment Approvals in Major Indian States (August 1991–April 2002)

States/Union Territories	IEM+LoI		IEM+LoI		IEM+LoI		FDI	
	Number	Percentage	Proposed investment (Rs crore)	Percentage	Proposed employment (number)	Percentage	Amount approved (Rs million)	Percentage
Maharashtra	9,741	19.9	2,22,090	20.6	1,720,358	19.8	4,86,601.8	17.4
Gujarat	6,258	12.8	1,80,153	16.7	995,719	11.4	1,84,532.5	6.6
Andhra Pradesh	3,411	7.0	1,17,514	10.9	569,909	6.5	1,30,686.8	4.7
Uttar Pradesh	4,360	8.9	76,142	7.0	1,097,702	12.6	47,916.05	1.7
Tamil Nadu	4,623	9.4	69,104	6.4	740,793	8.5	2,32,360.2	8.3
Karnataka	1,979	4.0	54,899	5.1	353,337	4.1	2,15,865.3	7.7
Punjab	2,255	4.6	53,426	4.9	535,977	6.2	19,684.04	0.7
Madhya Pradesh	2,047	4.2	43,817	4.1	396,827	4.6	92,273.63	3.3
Rajasthan	2,351	4.8	40,288	3.7	447,293	5.1	30,047.23	1.1
West Bengal	2,207	4.5	36,445	3.4	360,045	4.1	88,023.34	3.1
Haryana	2,936	6.0	33,110	3.1	461,899	5.3	35,194.19	1.3
Orissa	372	0.8	27,705	2.6	119,611	1.4	82,290.03	2.9
Kerala	517	1.1	10,520	1.0	86,387	1.0	15,268.72	0.5
India	48,962	100.0	10,80,135	100.0	8,710,544	100.0	28,04,422	100.0

Source: Government of India, 2001.

Notes: IEM stands for Industrial Entrepreneur Memoranda; LoI stands for Letters of Intent; FDI stands for Foreign Direct Investment.

reasons for the low attractiveness of Kerala as an investor's location. In this context, we try to examine the wage rates in Kerala manufacturing during the pre- and post-reform periods. We also examine the trends in industrial disputes in Kerala during the 1990s.

We have calculated both nominal and real average wage rates and their growth rates during the 1980s and 1990s for both Kerala and all-India. Based on the *ASI* data, the wage rates are computed by dividing the total wages by the total number of man-days. The real wage rate is calculated by converting the nominal wage data into constant (1982) prices. The nominal and real wage rates and their growth rates are reported in Table 9.10 and Table 9.11, respectively. It is apparent that the average nominal as well as the real wage rates in Kerala are lower than that in all-India wage in both the pre- and post-liberalisation periods. The difference in the wage rates between Kerala and India is more in the 1990s. Moreover, the overall growth rate in both nominal and real wage rates is lower in Kerala as compared to the growth rates at the all-India level. Interestingly, there is a decline in the real wage rate in Kerala during the post-liberalisation period. The highest wage rate—both nominal and real—in Kerala has been prevailing in the transport equipment industry during both the periods. The lowest nominal as well as real wage rate in Kerala in the 1990s was in the textile products. Similar to the levels of real wage rate, the highest growth in the real wage rate in Kerala in the 1990s was in the transport equipment industry, and the highest decline in the real wage rate in Kerala was in textile products.

It is clear from our analysis that there is no empirical support to the popular perception that the high cost of production in Kerala industry (at least in the organised factory sector), if it exists, is due to the high labour charges. The general wage rate as well as its growth in the factory sector has been lower in Kerala than in India at least during the last two decades. It is worth noting that despite a decline in the real wage rate in Kerala in the 1990s, there was no corresponding increase in the growth rate of employment.

A peaceful industrial working climate is an essential prerequisite for the industrial development of a region. The 'psychological fear' of the investors resulting from excessive strikes and lockouts is said to be one of the important reasons for the low industrialisation of the state. In this context, it is pertinent to examine the trend in the man-days lost due to industrial disputes in Kerala during the 1990s. Figure 9.1 portrays the trends in the man-days lost due to industrial disputes in Kerala in the post-reform period. The man-days lost due to strikes and lockouts peaked

Table 9.10
Nominal Wage Rate and its Growth across Two-Digit Industries in Kerala and All-India

Industry code (NIC)	Kerala				India			
	1981/82-1990/91		1991/92-2000/01		1981/82-1990/91		1991/92-2000/01	
	NWR	GR	NWR	GR	NWR	GR	NWR	GR
20-21	25	5.8**	82	18.0**	34	10.3**	99	12.7**
22	24	8.9**	73	15.3**	21	7.7**	54	12.4**
23 + 24 + 25	40	7.5**	97	11.2**	44	9.1**	113	11.0**
26	51	2.6	56	3.4	34	8.9**	87	11.6**
27	27	6.9**	70	13.0**	27	8.1**	99	18.6**
28	64	9.8**	172	11.3**	52	10.6**	149	12.1**
29	36	10.6**	101	6.7	38	7.8**	95	11.9**
30	80	9.3**	226	12.6**	71	9.4**	199	12.7**
31	60	10.7**	154	9.5**	60	8.9**	163	12.8**
32	41	8.4**	98	10.4**	39	10.2**	114	13.1**
33	81	7.7**	167	7.7**	64	8.5**	186	14.7**
34	47	11.0**	123	9.5**	51	9.5**	139	12.2**
35 + 36	76	9.7**	264	9.9**	71	10.2**	209	13.5**
37	86	10.3**	278	15.2**	73	9.7**	216	13.9**
38	67	8.5**	173	12.0**	55	9.4**	154	13.0**
Total	50	9.9**	125	9.8**	53	10.4**	135	10.3**

Source: Various issues of the *Annual Survey of Industries*.

Notes: (a) * and ** indicate significance at 5 per cent and 1 per cent, respectively.

(b) NWR is nominal wage rate; GR is growth rate.

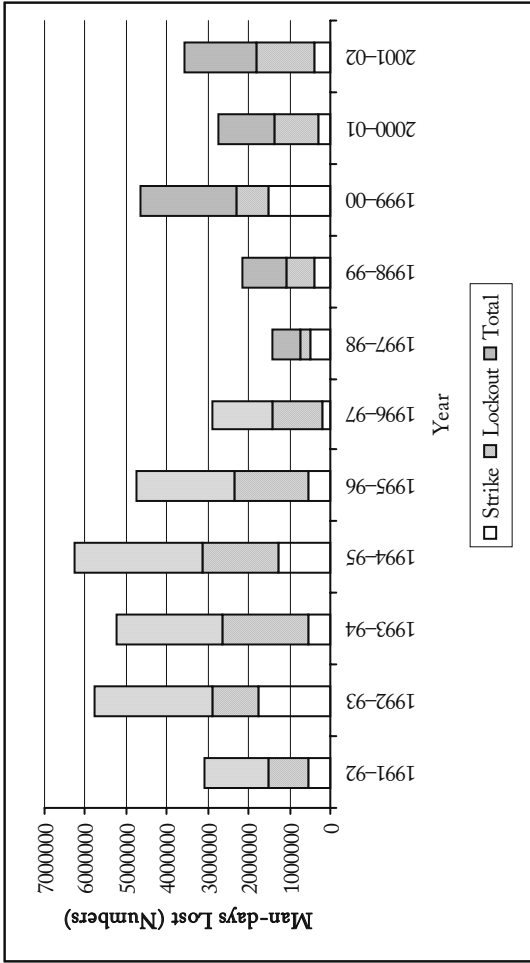
Table 9.11
Real Wage Rate and its Growth across Two-Digit Industries in Kerala and All-India

Industry code (NIC)	Kerala				India			
	1981/82-1990/91		1991/92-2000/01		1981/82-1990/91		1991/92-2000/01	
	RWR	GR	RWR	GR	RWR	GR	RWR	GR
20-21	19	-1.3	24	7.0**	24	1.9**	31	3.5**
22	17	1.8	21	4.3*	16	-1.0	17	3.2**
23 + 24 + 25	29	0.4	30	0.2	32	0.7	35	1.8**
26	37	-4.5*	18	-7.6**	24	0.3	27	2.7**
27	20	-0.2	21	2.0	20	-0.6	29	9.3**
28	46	2.7**	53	0.3	38	2.1**	47	2.8**
29	28	3.2	29	-4.0	28	-0.7	30	2.5**
30	58	2.2**	69	1.6**	52	0.9	62	3.6**
31	43	3.7**	48	-1.5	44	0.4	50	3.6**
32	29	1.4**	31	-0.6*	28	1.5*	35	4.1**
33	59	0.6	53	-3.3**	46	-	57	5.5**
34	34	4.0**	39	-1.5	37	1.0*	43	3.1**
35 + 36	55	2.9**	59	-0.9*	51	1.6**	65	4.3**
37	61	3.2**	83	4.2**	73	9.7**	216	13.9**
38	49	1.4*	53	1.0	55	9.4**	154	13.0**
Total	36	2.8**	39	-1.2*	38	1.8**	43	1.1**

Source: Various issues of the *Annual Survey of Industries*.

Notes: (a) * and ** indicate significance at 5 per cent and 1 per cent, respectively; (b) The wage rates are at 1982 prices; (c) RWR means real wage rate.

Figure 9.1 Man-days Lost due to Industrial Disputes in Kerala



in 1994–95 and were at their least in 1997–98. The trend suggests that the industrial disputes were on an average low under the Left Democratic Front government in Kerala. The overall annual compound growth rate of the total man-days lost in the 1990s shows that the man-days lost due to the industrial disputes has been declining at a rate of 5.2 per cent per annum. The rate of decline in man-days lost due to strikes is 7.6 per cent and that due to lockouts is 4.5 per cent. This shows that the industrial working climate in Kerala is not worsening in the 1990s.

Our overall analysis shows that the high wage rate and increasing industrial disputes are not the important reasons for the low industrial growth of Kerala, particularly in the 1990s.

Growth of Small Scale Industries

The small-scale industries (SSIs) play an important role in creating large-scale employment opportunities for the masses. In order to capture a broad picture of the industrial growth of Kerala, we examine the trends in the number of small-scale units, employment and investment in Kerala (Table 9.12). As per the available official data, there has been a continuous increase in the total number of SSI units in Kerala from 18,954 in 1981 to 73,522 in 1991 and further to 258,010 in 2002. The exponential growth rate of the number of SSI units in the state was 14 per cent per annum. But during the liberalisation period (1991–2002) the growth rate has decelerated to 12.1 per cent. According to official data, there were 5,526 sick SSI units in Kerala in 2002, which constitute only 2.14 per cent of the total SSI units in the state in 2002. Kerala has a 7.1 per cent share of the SSI units in India in 2000–01, but its share in the production was only 1.7 per cent in that year. Women-initiated SSIs are growing at a faster rate of 18.7 per cent during the 1990s. The total investment in SSIs is also going up at a rate of 16.6 per cent per annum in the 1990s. The value of goods and services produced in the small-scale sector is growing at the rate of 17.4 per cent per annum. Even though the rate is bit low compared to the growth of number of units and total investment, the employment in the small-scale sector is growing at a reasonable rate of 9.1 per cent in the 1990s. The average employment per unit during the 1990s is only 4.5 persons, which is smaller than the all-India average of 5.5. The evidence indicates that the SSI units in Kerala are, on an average, relatively smaller in size. Altogether, the small-scale sector shows a promising picture in Kerala in the post-liberalisation period.

Table 9.12
Details of Small-Scale Industrial Units in Kerala (as on 31 March 2003)

Year	Scheduled Caste/ Scheduled Tribe	Women	Others	Total	Total investment (Rs lakh)	Value of goods and services (Rs lakh)	Employment provided
1991	3,089	7,551	62,882	73,522	73,279.98	2,36,543.33	455,195
1992	3,428	8,231	72,681	84,440	86,386.28	2,58,500.56	507,992
1993	4,256	11,000	80,595	95,851	1,00,888.51	3,02,037.6	568,598
1994	5,486	14,742	90,156	110,384	1,17,516.26	3,60,794.14	629,543
1995	6,539	18,361	101,320	126,220	1,36,734.14	3,80,776.88	703,161
1996	7,265	22,072	113,786	143,123	1,59,187.86	5,08,868.37	774,936
1997	7,963	25,310	127,271	160,544	1,92,267.07	6,33,011.19	839,596
1998	8,846	29,976	141,269	180,091	2,35,133.66	7,44,840.46	909,859
1999	9,411	34,435	155,981	199,827	2,65,343.62	8,60,442.76	981,491
2000	9,944	38,364	171,515	219,833	3,05,096.73	9,77,065.49	1,053,533
2001	10,195	41,668	188,033	239,896	3,47,061.48	10,99,825.3	1,114,495
2002	10,491	45,985	201,534	258,010	3,72,643.38	12,21,437.62	1,173,474
Growth Rate	12.2	18.7	11.3	12.1	16.6	17.4	9.1

Source: Government of Kerala, 2003.

Note: All growth rates are significant at 1 per cent level.

CONCLUDING OBSERVATIONS

This essay has tried to analyse the structure and growth of the Kerala industry during the 1990s. In the 1990s too, Kerala held a relatively backward position in the industrial map of India. The relative rank of the state in Indian industry ranged from 10 to 16 in terms of selected indicators of industrial development. Kerala's share in the nation's industrial output is only 2.19 per cent, while the state shares 3.43 per cent of the nation's population. The share of industry in the domestic product of the state has increased marginally in the 1990s, but the industry's share in the domestic product in Kerala is less than that at the all-India level. In contrast to the national trend, the unregistered (informal) manufacturing in Kerala has recorded a relatively high growth rate in the post-liberalisation period.

Inter-district disparity in the share and growth of industries and industrial production has been observed within Kerala. Likewise, there is inter-industry disparity in the industrial production in Kerala. The industrial production in Kerala is concentrated in a few industries; the degree concentration has increased in the post-reform period. The liberalisation has not helped in the diversification of industries in Kerala. The employment generation also is concentrated in a few industries in Kerala. But we have seen an asymmetry between the shares in employment and value added in Kerala manufacturing in the post-reform period. Similar to the national trend, in Kerala too we have seen a deceleration in the growth rate of GVA in the manufacturing sector in the post-liberalisation period. But the growth rate in Kerala was much lower than that at the all-India level. Thus it is clear that the liberalisation measures have not resulted in industrial growth in Kerala manufacturing. The growth rates in GVA vary across the two-digit industries, but the variation is lower in the 1990s as compared to that in the 1980s. The level of employment also is heavily concentrated in a few industries in Kerala. There has been significant growth in the employment in Kerala in the post-liberalisation period. But no such growth in employment has been seen at the national level. Thus Kerala has had comparative benefit on the employment front, but not in industrial production in the post-reform period. Remarkable growth in the fixed capital in the Kerala industry has been noticed during the 1990s but the growth of fixed capital has apparently not influenced the output growth during the period.

The analysis of the investment proposals in Kerala during the 1990s clearly shows that Kerala is quite an unattractive destination for both

domestic and foreign investors. Kerala's position in this context is negligible compared to its neighbouring states. While examining whether the high cost of production due to the growing wage rate is one of the major obstacles to the industrial investment in Kerala, we have seen that both the nominal and the real wage rates in Kerala industry are lower in both the 1980s and the 1990s compared to all-India. Moreover, the growth rate of the wage rates also has been low in Kerala, particularly in the 1990s. In fact, the real wage rate in Kerala has been declining in the post-liberalisation period. While examining the trends in the working climate in Kerala industry, we have seen that the man-days lost due to industrial disputes have been showing a decreasing trend during the 1990s. Altogether, the available evidence shows that the so-called labour militancy does not seem to be the major hurdle for the state's industrial backwardness. The growth of small-scale industrial units and employment in this sector in Kerala also seems to be promising, particularly in the 1990s. Altogether, the industrial performance in Kerala during the 1990s has not been favourable in terms of the output growth, particularly in the factory sector, but it has been relatively favourable in terms of employment growth as well as the growth of informal and small-scale sectors.

NOTES

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1. Kerala is one of the four southern states of India, but the smallest one among them.
 2. The major changes introduced in the NIP, 1991, includes the abolition of industrial licensing, amendment of the Monopolies and Restrictive Trade Practices Act, contraction of areas reserved for the public sector, and liberalisation of foreign investment.
 3. All the variables in value terms are converted into constant prices before taking the average.
 4. In sectoral classification, we follow the standard classification adopted in *Economic Surveys* of the Government of India. Here, the secondary sector comprises three sub-sectors: (a) manufacturing, (b) electricity, gas, and water supply, and (c) construction.
 5. We follow the same method in the subsequent sections of this chapter for the estimation of period-wise and the whole period growth rates. We have estimated a kinked exponential model of the form:

$$\ln Y_t = \alpha_1 + \beta_1 (D_{1t} + D_2k) + \beta_2 (D_2t - D_2k) + u_t \quad (1)$$

Where,

$D_1 = 1$, for the period 1981–82 to 1990–91 = 0, otherwise

$D_2 = 1$, for 1991–92 to 2000–01 (in some cases the period ends at 1999–2000) = 0, otherwise

and ' k ' is the midpoint of the two discontinuous series, and u_t is the stochastic disturbance term. In our study ' k ' = 10.5. The OLS estimates of β_1 and β_2 from (1) gives the exponential growth rates for the two sub-periods. See Boyce (1986) for a detailed discussion on the kinked exponential model.

6. In a subsequent section, we estimate the growth of employment in the factory sector using the *ASI* data.
7. This percentage distribution is calculated from the average values of the GVA for the 1980s (i.e., 1981–82 to 1990–91) and the 1990s (i.e., 1991–92 to 1999–2000).
8. The location quotient is calculated using the following formula:

$$LQ = \frac{SVA_j}{STVA} \bigg/ \frac{CVA_j}{CTVA}$$

SVA_j = value added in the j^{th} industry of the state

$STVA$ = total value added in the state manufacturing

CVA_j = value added in the j^{th} industry of the country

$CTVA$ = total value added in the national manufacturing.

9. But the growth rate of employment estimated from the data collected from the *Economic Review* published by the Kerala State Planning Board shows that there is no significant growth in the employment in Kerala industry in the 1990s. The estimate based on the *ASI* data seems to be more reliable in this regard.

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INFORMATION TECHNOLOGY IN KERALA:

STRIVING FOR GLOBAL COMPETITIVENESS

Tomy Joseph

10

INTRODUCTION

Countries around the globe have become more information- and knowledge-intensive, giving rise to the phenomenon of the knowledge-based economy. In major Organisation for Economic Co-operation and Development (OECD) countries, an increasing proportion of the gross domestic product (GDP) is now attributed to knowledge-based industries, telecommunications, computer and information services, finance, insurance, and other business services.¹ In the emerging knowledge-based global economy, the sustainable competitive advantage depends more on the ability of countries and regions to harness their intellectual assets than on the availability of cheap labour or natural resources. The information revolution offers the developing countries a unique chance to leapfrog many stages of development. The Indian information technology (IT) sector has been booming with the software and services industry as the engine of growth. It has grown at an incredible rate of 50 per cent per annum during the 1990s and has established India as an exporter of knowledge-intensive services, using the country's significant repositories of scientific and technical capabilities amounting to some 170,000 scientists, technicians and engineers.

While the national liberalisation policies since 1991 were instrumental in the growth of the sector, the policies of the states have been corroborative in bringing actual investments. Macroeconomic performance depends on micro-foundations and vice versa. Porter (1999) observed that 'unless there is appropriate improvement at the microeconomic level political and macroeconomic reform will not bear full fruit'. The economic performance of individual states in the post-reforms period has received less attention than it deserves in public debates on economic policy. Much of the debate in academic circles has focused on national

performance. Liberalisation has reduced the degree of control exercised by the centre in many areas leaving much greater scope for state-level initiatives (Ahluwalia, 2000).

This chapter attempts to examine the policy initiatives of the Government of Kerala (GoK) towards the development of a globally competitive IT sector in the state. Kerala's development experience has attracted academic interest since the 1970s.² The state has achieved global standards in human and social development and is ranked first in the country as per the *National Human Development Report, 2001*. Though industrially backward, the inherent advantages—high physical quality of life, high growth of the services sector, skilled labourers, densely networked communities, etc.—hold immense potential for the emergence of Kerala as a leading knowledge society. The national-level policies and performance are evaluated in the following section to provide a background.

IT POLICY IN INDIA

A major segment that witnessed growth as a result of the liberalisation policy is the IT sector. Till the early 1990s, the IT policy comprised a telecom policy, a hardware policy and a software policy. With the convergence of the three technologies, the policies also converged in the 1990s.

The various liberalisation measures have not been successful in creating an indigenous hardware industry in India. One can observe that India had an IT revolution with a lagging hardware sector due to faulty and deficient policies and also the resource movement effect of the software-export-led strategy.³

Software and services was identified as the fastest growing and most profitable segment of the IT industry. The policy document of 1986 stated the government's commitment to software development. The main objectives of the policy included a quantum leap in software exports to obtain a sizeable portion of the global market in software; an integrated development of software for national and export markets; simplification of procedures to accelerate the rate of growth of the industry; the establishment of a firm base within the national software industry; and, finally, the increased utilisation of computers in decision-making and efficiency enhancement.

The assessment by the finance ministry in the early 1990s highlighted that India's comparative advantage was in software rather than hardware. As a result, thrust was given to software exports. During the post-1991 period, the software industry was affected by general changes in industrial

and trade policies. In addition, the government also made certain institutional interventions like the establishment of Software Technology Parks (STPs) to provide the necessary infrastructure for software development. The STPs also envisage a transparent policy environment and a package of concessions including approvals under 'single window clearance' mechanism; permission of 100 per cent foreign equity; five-year tax holiday; and completely duty-free imports.

A major policy initiative in recent years was the body of recommendations made by the IT Task Force (1998). Various stakeholders in the industry were included in the Task Force. A number of government agencies involved in different aspects of IT were brought together into an integrated IT ministry. This was followed by an IT Act to deal with a wide variety of issues relating to the IT industry. The Task Force viewed both software and hardware industry as important for the emergence of India as a global IT superpower. Strategic policy instruments have been proposed to consolidate its leadership in the overseas market, while creating an accelerated demand in the Indian domestic market. The main recommendations included the following.

1. **Info-Infrastructure Drive:** Accelerate the drive for setting up a world-class info-infrastructure with an extensive spread of fibre optic networks, satcom networks and wireless networks.
2. **Target ITEX-50:** With a potential \$2 trillion global IT industry by 2008, a policy ambience will be created for the Indian IT industry to target a \$50 billion annual export of IT software and services (including IT-enabled services).
3. **IT for all by 2008:** Accelerate the rate of personal computer (PC) penetration in the country to one per 50 people by 2008, with a flood of IT applications, propagation of IT literacy, networked government, IT-led economic development, rural penetration of IT applications, training to citizens in the use of day-to-day IT services, for example, tele-banking, tele-medicine, tele-education, tele-documents transfer, tele-library, tele-info-centres, electronic commerce and public call centres, and training of world-class IT professionals.

The policy also aims at bringing software under a combination of copyright and patent protection. While the above aspects are comprehensive and ambitious, it is yet to be seen how the policy would be implemented. An appropriate implementation strategy has to be chalked out with the support of all the stakeholders, like government, private firms, educational institutions and non-government organisations.

An evaluation of the policies towards the software industry and an analysis of the performance of the industry reveals that India had adopted a growth strategy oriented towards software exports. The implications of such a strategy are examined here.

PERFORMANCE OF THE INDIAN IT INDUSTRY

The growth in Indian IT exports over the decade and the unique credibility that India enjoys in the global IT market have created much euphoria among policy-makers and the media. India has now attained a critical mass of 700 companies with a number of large firms like Tata Consultancy Services, Wipro and Infosys. Many local software firms have earned ISO 9000 as well as SEI-CMM certification.⁴ India has made this great achievement by leveraging its most valuable service—highly skilled manpower.

The industry has clearly emerged as a major export earner of the country, contributing 8 per cent of the total export earnings. The rate of growth in software exports of about 50 per cent—both in rupees and in dollars—as evidenced from Table 10.1 is almost unprecedented in any other sector of the Indian economy.

However, behind this success lie a number of analytical apprehensions. The IT boom in the country is often projected using the gross foreign exchange earnings, but net earnings are a better measure as imports of hardware and software are involved in the development of exports. Joseph and Harilal (2001) estimated that the net export earnings from India's

Table 10.1
Indian Software Exports and Growth Rates

<i>Year</i>	<i>Million rupees</i>	<i>Growth rate</i>	<i>Million dollars</i>	<i>Growth rate</i>
1990–91	2,500		128	
1991–92	4,300	72.00	164	28.13
1992–93	6,750	56.98	225	37.20
1993–94	10,200	51.11	330	46.67
1994–95	15,350	50.49	485	46.97
1995–96	25,200	64.17	734	51.34
1996–97	39,000	54.76	1,085	47.82
1997–98	65,300	67.44	1,750	61.29
1998–99	109,400	67.53	2,650	51.43
1999–2000	172,000	57.22	3,900	47.17

Source: Various issues of NASSCOM's *Indian Software and Services Directory*.

Note: Annual average growth rate; 60.19 (rupee) and 46.45 (dollar).

software are not more than 50 per cent. The structure of India's IT exports reveals that on-site services accounted for almost 80 per cent of total software exports in the early 1990s and now, as a result of various policy measures and telecommunication facilities, it is reduced to 58 per cent (Table 10.2). A high component of on-site services meant that software programmers were exported to US to work for clients there.⁵ This again entails outflow of foreign exchange from India to pay for travel and living expenses of software personnel. After making allowances for this, net export earnings are estimated to be around 40 per cent of the gross figures (Heeks, 1998).

Table 10.2
Structure of Software Exports from India

<i>Type of software</i>	<i>1995</i>	<i>1999</i>
On-site services	61.00	58.18
Offshore services	29.50	33.92
Products and packages	9.50	7.90
Total	100.00	100.00

Source: NASSCOM (1999).

Another dimension of the IT export boom is that it is dominated by export of software services rather than software packages, which are high value-added. Software packages have not taken off despite India's low labour cost advantage, mainly due to barriers to entry into this segment, as Indian firms are not familiar with the foreign package markets. The Indian domestic market also did not provide the avenues. The high risks involved, the long-term investments, and increased piracy have been pointed out as inhibiting the domestic development of packages.

Though software development is a skilled task, Indian workers are often used as programmers (often termed 'cyber coolies') for coding and testing thus working to the requirements and design specifications set by foreign software developers, rather than as system analysts or designers. Thus, even though software was conceived as the best entry point for India into the IT edifice, moving up the value chain has been a problem for the Indian IT industry.

Although the Indian companies have exported software to more than 40 countries, there is heavy reliance on the US market as seen in Table 10.3. Therefore, any change in the US economy will have a tremendous impact on the Indian IT sector.⁶ Efforts need to be taken to penetrate other emerging markets, including Europe, Japan and China.

Table 10.3
Destination of Indian Software Exports (1997–98)

<i>Destination</i>	<i>Percentage</i>
US	65
UK	10
Europe	10
Japan	5
Others	10

Source: Dataquest (1998).

A major lacuna of the strategy has been that the export-driven IT sector remains an enclave in the economy with hardly any backward or forward linkages. The Indian experience shows that the technology has not been harnessed for enhancing efficiency and productivity but for increasing export earnings of the economy. Moreover, the IT sector boom is likely to have adverse effects on other economic sectors as skilled chemical, mechanic and civil personnel move into the IT sector.

Limited infrastructure also continues to constrain the industry. Though recent efforts at improving the telecommunications sector as the backbone of the IT industry is noteworthy, the sector has to go a long way in reaching international standards. The poor quality of telecommunications infrastructure including bandwidth and limited telephone penetration are important constraints to the growth of the IT sector.⁷ The development of mobile telephony and Internet products presents a window of opportunity and growth, especially for e-commerce.⁸ However, Internet penetration in the country is very low when compared to many other countries (Table 10.4). All these drawbacks apart, the recent developments in IT offer new opportunities for the developing countries.

Table 10.4
Internet Users in 2001

<i>Country</i>	<i>Internet users (millions)</i>	<i>Internet penetration (per thousand)</i>
United States	142	499
Japan	57	454
China	33	26
Korea	24	510
India	7	7

Source: UNCTAD, 2002.

EMERGING OPPORTUNITIES IN IT

An interesting dimension is the rise of IT-enabled services, which is expected to require 1.1 million workers by 2008 (NASSCOM-McKinsey, 2002). The commercial opportunity of IT-enabled services is estimated by NASSCOM at US\$ 75 billion, growing at a rate of 20 per cent annually. A NASSCOM survey has forecast the following opportunities for IT-enabled services from India (Table 10.5).

Table 10.5
Magnitude of IT-enabled Services

<i>IT-enabled services</i>	<i>1998</i>		<i>2008 (Projections)</i>	
	<i>Employed</i>	<i>Crore rupees</i>	<i>Can be employed</i>	<i>Crore rupees</i>
Back office operations/revenue				
accounting/data entry conversion	9,700	420	260,000	19,000
Remote maintenance and support	1,600	65	180,000	13,500
Medical transcription/insurance				
claim processing	3,800	140	160,000	11,000
Call centres	1,400	40	100,000	6,000
Database services	1,000	45	100,000	6,500
Content development	5,500	270	300,000	25,000
Total	23,000	980	1,100,000	81,000

Source: www.it-taskforce.nic.in

IT is profoundly changing producer and consumer services in industrialised countries by transforming the organisation and processes of existing service sectors—trade, distribution, transport, marketing, insurance, financial sector, health and tourism—and by creating new services industries. Changes in the service sectors, particularly the knowledge-intensive segments, have become critical to industrial competitiveness.

Another remarkable facet of the digital economy is electronic commerce. Forrester (1998) forecasts worldwide e-commerce at US\$ 2,293.5 billion in 2002. Business-to-business (B2B) and Business-to-consumer (B2C) modes offer tremendous opportunities for less developed countries and regions. The Internet, which enables e-commerce, is radically changing not only the way businesses serve and communicate with their customers but also the way they manage their suppliers and partners. The Internet, apart from enabling e-commerce, is also contributing to the

rapid internationalisation of the services sector through Business Process Outsourcing (BPO).

BPO⁹ handles complex tasks ranging from insurance underwriting to payroll processing, customer care, human resource development (HRD) operations and plastic research. E-business, e-finance, e-publishing, e-insurance and e-governance offer enormous opportunities. These operations require very different mindsets and skills. This provides great opportunities for postgraduates and doctorate holders in different disciplines. The challenge is in developing proficiency in tax laws, insurance regulations, financial accounting rules, customer interaction levels and other similar faculties. There is scope for aiming at the higher rungs of the value addition ladder where competition is scarce, returns are generous and new technology does not threaten to make them redundant. Call centres and medical transcription are some of the low value-added processes.

A third factor is that new opportunities created by information and communication technologies through outsourcing look promising for women, who form a significant share of the workforce in the IT-enabled industries. It is particularly advantageous for regions with high female literacy rate and high female tertiary education.

It is now possible for different regions to specialise in different IT segments. For this, the competitive strength of each region needs to be analysed. The state of Kerala with a high physical quality of life has experienced a continuous recession in the productive sectors. The perceptions of labour militancy and disturbance have persisted for a long time along with high incidence of educated unemployment. The Congress-led United Democratic Front (UDF) and the Communist Party of India (Marxist) led Left Democratic Front—with different policy perspectives—have alternately ruled the state. It is in this context that the following section explores the efforts of Kerala—a late entrant in the industrialisation process—in promoting and utilising IT.

IT POLICY AND PERFORMANCE IN KERALA

Electronics was a thrust area for Kerala ever since the establishment of Keltron in 1972. The industry registered growth till the 1980s but has decelerated ever since. The software industry in Kerala till recently was confined to the development of embedded software by the Electronics Research and Development Centre (ER&DC) and a few groups of individuals, mostly for the domestic market. With liberalisation, there

were major institutional interventions to promote the growth of the software industry.

The first initiative was the setting up of the Software Technology Park of India (STPI) in Thiruvananthapuram at the instance of the Department of Electronics. Transparency in the policy environment and a single-window clearance system as regards imports and other licences were introduced. In accordance with the recommendations of the Eighth Five-Year Plan Task Force on software development, a Technopark was set up in Thiruvananthapuram by the GoK, and it offers substantial cost advantages in terms of infrastructure.¹⁰

The state IT policy, announced in 1998, aimed at a PC penetration of 10 per 1,000 population by 2001. All colleges were to be hooked on to the Internet by 2000 and all schools by 2002. Internet kiosks were to be established in every panchayat. The policy aimed at modernisation and integration of government functions using IT. The policy initiatives included creation of IT-specific infrastructure in different parts of the state; removal of hurdles in the regulatory environment making it proactive and sensitive to the needs of the industry; incentives and concessions for IT ventures;¹¹ special packages for financial IT ventures; and promotion of Kerala as a location for IT investment.¹² The Tenth Plan document also contains a number of policy initiatives.

IT performance of the State

The Technopark at Thiruvananthapuram has emerged as one of the leading IT parks in the country. The campus now hosts about 56 international and domestic companies employing 4,820 persons and possessing a revenue base of Rs 250 crore. These companies include four CMM level 5, two CMM level 3, and several ISO 9000 level companies.¹³ Thirteen companies have set up call centres in Kerala so far. Technopark has 5.32 lakh sq. feet area for industrial modules and construction is in progress on 6 lakh sq. feet. The total land in possession of Technopark is 184.72 acres. The cost of skilled labour is cheaper compared to that in other states. Most units have foreign equity participation mainly from non-resident Keralites. In addition, the Kerala Industrial Infrastructure Development Corporation (KINFRA) is developing two IT parks at Cochin and Malappuram.

A peripheral evaluation of performance makes one infer that these policy measures have not paid rich dividends (Table 10.6). On the policy initiative, Kerala does offer challenges to the neighbouring states, but the performance indicators do not pose a competition to the sector in other states.

Table 10.6
Software Exports from South India (2000–01)

<i>State</i>	<i>Exports (Rs crore)</i>	<i>Share in all-India (percentage)</i>
Karnataka	7,475	27.60
Tamil Nadu	2,956	10.40
Andhra Pradesh	2,017	5.20
Kerala	141	0.56

Source: Viswanathan, 2001.

It is evident from Table 10.6 that the contribution of the state to software exports has been insignificant even after various policy initiatives. The state also compares poorly with the neighbouring states with regard to the number of firms. Of the leading 558 companies, Bangalore, Mumbai, Chennai and Hyderabad account for more than 80 per cent whereas cities including Thiruvananthapuram have only a marginal share (Table 10.7).

Table 10.7
Concentration of Firms

<i>City</i>	<i>Number of software firm headquarters</i>
Bangalore	152
Mumbai	122
Chennai	93
Delhi	86
Hyderabad	34
Calcutta	27
Pune	22
Others*	22
Total	558

Source: Dataquest (1998).

Note: *Including Thiruvananthapuram.

The STPI at Bangalore, which started functioning in 1991, hosted 183 firms by 1998. Bangalore, Chennai and Hyderabad have attracted a number of large companies including foreign-owned firms such as Motorola, Microsoft, Texas Instruments and Hewlett-Packard and Indian-owned Infosys and Wipro.

Why is it that the state missed the *first-mover* advantage in software development to the neighbouring states? Is it that the reasons generally pointed out for the industrial backwardness hold true even in the case of

the IT sector?¹⁴ What possibilities remain for the state for harnessing the IT for its development?

A number of reasons can be pointed out for the poor performance of the state vis-à-vis its neighbours. Comparing the various incentives and concessions with those of the neighbouring states, one can observe that these were already offered by the neighbouring states who had a better record of industrialisation. There was nothing new to offer. Further, many of the announcements remained on paper.¹⁵

The infrastructure was concentrated mainly in the parks alone. These centres often remained as export enclaves without linkage effects and have not yet succeeded in creating the critical mass needed for state-wide expansion of the sector. Provision of electricity, water and telecommunication facilities throughout the state remains a distant goal. The infrastructure facilities provided at Technopark, Thiruvananthapuram, are eclipsed by the International Technology Park at Bangalore and the hi-tech parks at Hyderabad. Traditionally, the software industry has an urban bias and has flourished in major cities. Facilities for entertainment and recreation are incentives for the professionals to be employed in a particular location. However, the choice of Thiruvananthapuram as the IT hub of Kerala could not offer the advantages on par with Bangalore, Hyderabad, or Chennai. While taking into account the facilities of connectivity, international airport, business activity, etc., Kochi would have been a better destination. Another shortcoming of the policy was its failure to attract the giants of the industry to Kerala. The exposure and the research experience of the leading firms would have boosted spin-offs in the sector.

The procedures and the departments involved have increased over the years.¹⁶ The Kerala State Industrial Development Corporation Kerala Finance Corporation (KFC), KINFRA, the Kerala Institute of Tourism and Travel Studies, the IT Mission, the Investment Promotion and Management Cell, the State Information Infrastructure (SII), C-Dit, the Customer Facilitation Cell for IT industry, the IT department, the Industrial department, and Technopark have to be approached at various stages; coordinating the various agencies is a Herculean task. It makes one doubt the increasing regulatory role of the state in the period of liberalisation and deregulation. Involvement of the private sector is often viewed with suspicion, especially in infrastructure development and software development for governance.¹⁷

The attempt to create a pool of skilled personnel is yet to materialise. There are no schools of excellence or engineering institutes of national or international repute so far in the state. The introduction of computer education at the higher education level is not adequate. The much-needed

industry–academic interface is severely lacking. IT diffusion has not taken place at the warranted pace. A new technology brings along a new culture and, for speedier diffusion, a mass campaign similar to the literacy campaign or peoples’ plan campaign is needed. Computerisation of the government departments has been slow and sporadic. The pertinent question now is what uniqueness can Kerala offer? In other words, the question is one of creating ‘niche opportunities’ in IT.

Need for a New Vision

It is realised that in the emerging BPO and IT-enabled services, Kerala can create niches utilising its advantages in terms of health, education, skilled male and female workforce, tourism, banking, insurance, media and animation, content development, documentation, Ayurveda, etc. It is the synergies in these fields that have to be leveraged in the new century. The strengths of the state include high growth of the services sector, HRD, infrastructure development, institutional support and the successful Keralite diaspora abroad.

It is argued that the services sector has received a new identity in recent years in economic thinking, in the new knowledge economy, and in the international arena.¹⁸ In India, the growth of the services sector was seen as a refuge for underemployed workers in the informal segment of the labour market. However, in the case of Kerala, the services sector cannot be considered as a resort of the unemployed.

An analysis of growth trends in net state domestic product in Table 10.8 shows that the revival in economic growth in the 1990s is largely accounted for by the services sector.

It is noteworthy that the contribution of the services sector to total growth (as seen from Tables 10.8 and 10.9) has increased significantly in the 1990s while that of industry is relatively marginal. Kerala’s service sector growth has been higher than that of all the southern states and this leaves opportunities for development using IT.

Table 10.8
Sectoral Contribution to State Domestic Product Growth

<i>Period</i>	<i>Agriculture and allied</i>	<i>Industry</i>	<i>Services</i>
1981–82 to 1990–91	31.87	17.43	50.7
1991–92 to 1996–97	29.27	11.68	59.05
1981–82 to 1996–97	31.32	14.3	54.38

Source: Subrahmanian and Azeez, 2000.

Table 10.9
Contribution of the Services Sector to State Domestic Product
(at 1993–94 prices)

<i>Year</i>	<i>Kerala</i>	<i>Karnataka</i>	<i>Tamil Nadu</i>	<i>Andhra Pradesh</i>
1993–94	0.491456	0.382507	0.413727	0.423515
1994–95	0.483764	0.395263	0.404341	0.430392
1995–96	0.495905	0.407563	0.424762	0.431383
1996–97	0.509112	0.419397	0.447376	0.435855
1997–98	0.515971	0.43699	0.461656	0.463029
1998–99	0.519324	0.42486	0.470957	0.445932

Source: Estimates from CSO, *National Accounts Statistics*.

The contribution of the services sector in Kerala in 2000–01 at 1993–94 prices is estimated to be 55.2 per cent (State Planning Board, 2002). The growth of the services sector at a higher rate compared to other states should not be a concern but a potential for growth in the information era. The growth potential for Kerala lies more in the development of value-added services and their domestic and international supply rather than in industrialisation led by manufacturing. IT should be a tool to achieve this goal.

The HRD on par with international standards is highlighted as a major strength of the state.¹⁹ A major factor for the absorption and diffusion of the technology depends on the level of education attained by the society.²⁰ An analysis of the educational standards of Kerala reveals that it has a strong base to develop in the knowledge economy. A major attraction for IT-enabled services, which contain tremendous scope for female employment facilitating a combination of family life with a career, is the high total literacy and female literacy.

Table 10.10
Literacy Rates in South Indian States (as per 2001 Census)

<i>State</i>	<i>Literacy rates</i>	
	<i>Total</i>	<i>Female</i>
Kerala	90.9	87.9
Tamil Nadu	73.5	64.6
Andhra Pradesh	61.1	51.2
Karnataka	67.0	57.5
All-India	65.4	54.3

Source: State Planning Board, 2002.

Kerala has the highest incidence of educated unemployed in the country. However, the pool of graduates and postgraduates in the art and science disciplines as evidenced from Table 10.11 offers potential for productive employment in the IT services industry.

Table 10.11
Profile of Higher Education in Kerala
(annual intake in 2002)

<i>Course</i>	<i>Number</i>
Bachelor of Arts	21,896
Bachelor of Science	21,595
Bachelor of Commerce	10,702
Master of Arts	3,440
Master of Science	3,015
Master of Commerce	1,091
Total	61,739

Source: State Planning Board, 2002.

To support the development of software, hardware and telecommunications needed for IT growth, there is also a pool of technically skilled personnel. There are almost 20,000 students taking computer courses in the state. The annual intake in the state's engineering colleges in various disciplines in 2002 was 17,023 and in polytechnics, 9,380. It is for the state to combine its pool of the technically and non-technically educated and equip them to take advantage of the emerging trends in software development, IT-enabled services and e-commerce.

Kerala's infrastructure facilities are also advantageous for the diffusion of IT. Kochi has the unique connectivity advantage of being the landing point of two major international submarine cables linking to US, Europe and the Far East. Kerala enjoys the highest land telephone density in the country (with 8 telephones per 100 population) and also the highest mobile phone density. Kerala's telephone exchanges are completely digital. Its possession of the country's highest rural telephone density (6 per 100) is an indication of the possibility of bridging the digital divide. The high-speed bandwidth networked through optic fibre cable (OFC) provides the necessary infrastructure for IT-enabled services in Kerala. The state is also set to achieve the highest PC penetration in the country.

The successful Keralites in other countries can be useful in facilitating acquaintance with foreign markets and in promoting IT-enabled services through their contacts. A study by the Centre for Development Studies (CDS) estimated 1.36 million migrants in various countries with an annual cash remittance of Rs 35,304 million.²¹

Apart from the initiatives in the 1990s, new efforts at making Kerala an investment-friendly state is evidenced from the package of reforms including the New Industrial Policy, the New IT Policy and the New Labour Policy. The UDF government, which came back to power with an overwhelming majority in 2001, has taken a number of bold steps. These policy measures pursued in conjunction are expected to change the negative perceptions about the state and provide a climate conducive to domestic and foreign investment.

The New Industrial Policy, 2001, envisages building Kerala into a leading industrial state in the region. It seeks to capitalise on the unique strengths of the state and its economically successful diaspora. The main objectives are as follows:

- Enhanced and sustained industrial growth rate and generation of higher employment in industry.
- Creation and maintenance of an investment-friendly climate and facilitation of measures to maximise global and local investment in industry.
- Maximisation of private investment in infrastructure development.
- Elimination of all restrictive labour practices.
- Empowerment of the traditional sector to face global challenges through appropriate technology, productivity improvement and marketing.

A series of measures are proposed for the realisation of these objectives. Administrative reforms include simplification of procedures, 'single-window clearance system', and self-certification regime. A well-planned and sustained marketing campaign is proposed to promote Kerala as an ideal investment destination. The recently concluded Global Investors Meet held at Kochi, Kerala on 18 and 19 January 2003 is a move in this direction. Such campaigns inside and outside the country give the right signals to investors regarding the investment climate and create a need for investment and growth in the minds of the people of the state.

The New IT Policy, 2001, rightly identifies the opportunities for the state. It views IT as an instrument for Kerala's emergence as a leading 'knowledge society' in the region. Also, it rightly identifies IT-enabled

services, e-commerce and multimedia as the new opportunities for the state. The policy contains a three-pronged strategy.

1. Creating appropriate pro-business and pro-enterprise legal, regulatory and commercial frameworks to facilitate the rapid growth of the IT industry in the state.
2. Establishing Kerala as a global centre for excellence in human resources through the creation of a multi-skilled, technically competent manpower in the state.
3. Establishing an internationally competitive business infrastructure and environment for the IT industry in the state on par with the best global facilities and practices.

The New Labour Policy, 2001, intends to make the labour market responsive to the changing needs of labour and industry and suit the requirements of economic development. A recent study, sponsored by the Confederation of Indian Industry across 18 Indian states, rated Kerala as the third best on the attractiveness of investment, but only 13th on investment climate and labour relations. This indicates the persistence of labour problems in the state—whether real or perceived—and the urgency to take immediate and deliberate measures to overcome such perceptions.

The policy seeks to curb undesirable labour practices in the state. It is significant for the IT sector in the state. In area like IT, where the nature of the labour inputs is highly flexible and mobile, and where there is intense competition between states and regions for attracting inward investment, the government recognises the need to ensure a regulatory environment and an employment regime that will be positive inducements for investment.

IT software units are deemed 'establishments' under the purview of the Kerala Shops and Establishment Act, 1960. Further, the government exempts these units from the provisions of the Act in respect of the following.

1. Working hours stipulation.
2. Employment of females between 7.00 p.m. and 6.00 a.m.
3. Opening and closing hours.
4. Grant of weekly holidays.

The government also regulates the activity of loading and unloading workers on the premises of the IT establishments. Another facility offered is self-certification in respect of the following regulations.

1. Payment of Wages Act
2. Minimum Wages Act
3. Contract Labour (Regulation and Abolition) Act
4. Workmen's Compensation Act
5. Employee's State Insurance Act
6. Payment of Gratuity Act

The new policy ensures round-the-clock operation and employment of females in night hours. The disadvantage of the state in relation to its neighbours in various labour enactments has been overcome through permission of self-certification.

Prospects and Policy Implications

While the new opportunities in IT-enabled services and e-commerce look promising for Kerala, which has a matured services sector, high physical quality of life, highly skilled labour force and a suitable policy ambience, many challenges still remain. The lack of continuity in policies of the two coalition fronts poses a threat to the full realisation of the goals. There is an urgent need for a consensus on the development perspective of Kerala.

A new agenda for the government is to evolve innovative ways of extending the social security net to cover the new services sector workforce. There is increased contracted and outsourced work and increased employment of females.²² There is no permanent employment in the conventional sense but more of contractual work. Permanency depends on life-long employability, which, in turn, depends on life-long learning. The role of the government becomes critical in this regard. It also requires efforts targeted on education, skill development and training.

Another challenge is making Kerala a global centre of excellence in human resources and providing adequate trained manpower to the needs of the industry. The permitting of private investment in higher education in Kerala is an encouraging step in this direction. It is essential to utilise the graduates and postgraduates in various disciplines and make them employable and attune their skills to the requirements. A revamping of the higher education system through an increased academic-industry interface is needed. Industry should be involved in the decision of curriculum, provision of infrastructure, on-the-job training, projects and so on. Enhancing the English language advantage and promoting Chinese, Japanese and European languages in schools and colleges will help in penetrating new markets. Short-term courses in management studies should be promoted so as to professionalise the manpower.

Building up a domestic base through higher diffusion of the new technology and faster e-governance should be an immediate concern of the state government.²³ This should be a priority in a democracy, for the people to realise their rights and to eliminate the information poverty being experienced in the state. This would help in professionalising the bureaucracy. A major limitation of liberalisation was that the process had not penetrated down to the administrative system of the state and local self-governments. There is large-scale administrative inefficiency and delay in delivery of services. The 'procedural blockades' act as harassment instead of solving problems.

A strong domestic base through synchronisation of the services sector with IT can help the state as a springboard for exports. Industrialisation through growth of the services industries is a viable option for Kerala in the new knowledge economy. It is for the state to concentrate and consolidate the achievements and highlight them rather than looking back at lost opportunities.

Internet connectivity is the major infrastructure for IT-enabled services and e-commerce. At this point, the emphasis should be on providing infrastructure all through the state as one stretch of land that can be promoted as a potential IT site. Provision of electricity and improved road and rail transport as well as good drinking water should be given priority.

The keen interest shown by new investors at the Global Investors Meet (2003) may be interpreted as the success of the new IT and labour policies in inducing investors. Some good signs include the intention of Infosys to start operations in Kerala, that of the UK-based general insurance major Allianz Cornhill to set up a base at Technopark, and that of McKinsey to open its 100 per cent owned subsidiary, Visual Graphics Computer Services, at Technopark. Sigma at KINFRA is to set up a joint venture for a Korean industrial village in Kerala. The UK-based educational software, Sherston Software, has also recently set up a base. Reliance is also to invest Rs 1,000 crore for a digital revolution in the state. Recently one can evidence greater investments flowing to the medical and educational fields. The growth of the tourism sector, especially in high-end products, in Kerala also looks promising.²⁴

CONCLUDING REMARKS

This chapter attempts to evaluate the policy initiatives by the GoK in the development of the IT sector in the state, against the background of the Government of India's efforts in laying a foundation for the IT sector in

the country. Some of the disquieting effects of the growth pattern have also been discussed. Neglect of hardware and excessive thrust on software exports were the main features. Heavy dependence on software exports failed to create linkages and enhance productivity and efficiency in the economy.

The new growth potential sectors in IT are identified as IT-enabled services and e-commerce. Kerala, which has lagged behind in software development, can make achievements in some of these segments by highlighting its strengths. The growth of the services sectors, the high physical quality of life, and the high telephone and Internet density are visualised as strengths. Added to these is the new policy ambience created through a series of industrial, IT and labour policies. The government has an increased role as an investor, consumer, catalyst and strategist than as a regulator.

The development experience of Kerala suggests the persistence of a number of locational disadvantages, which persist even after liberalisation. Inconsistency in the policies, administrative inefficiency, poor labour relations and primitive infrastructure still remain to be addressed amply. The challenge with special reference to IT is the accelerated diffusion of IT, revamping of the higher education system, and evolution of new social security schemes for the IT labour force. What is crucial is converting the state's perceived weaknesses into strengths. If properly planned and implemented, the state can provide a model of IT-led growth of an industrially backward region with minimum digital divide. What remains to be seen in the future is the feeling of urgency and a consensus for development with consistency in policies and determination in implementation at all levels.

NOTES

1. See UNCTAD (2002).
2. See CDS (1975).
3. See IT Task force (Government of India, 1998) and Joseph (2002).
4. Level 5 of Capability Maturity Model (CMM) for software indicates the highest level of excellence in quality.
5. In India, it is commonly referred to as 'body-shopping'.
6. As in the case of the 9/11 World Trade Centre tragedy or even a change in government policies of the USA, for example, the ban on business outsourcing to countries like India.

7. In 1996, India had 15 main telephone lines per 1,000 people, compared to 395 per 1,000 people in Ireland and 446 per 1,000 in Israel.
8. The Internet, a prerequisite for the expansion of e-commerce, is not necessarily an indication of its existence or growth.
9. The basic theory of BPO is to identify the core competencies, focus only on them, and get out of everything else. All other activities are to be outsourced to other specialist firms.
10. Infrastructure facilities include the following.
 - Built-up space that meets global IT industry standards.
 - 110 KV, 30 MVA dedicated power station with two feeders from the power grids, back-up generators providing up to 100 per cent back-up.
 - OFC connectivity into Cochin gateway and multiple earth stations.
 - Abundant supply of excellent quality water.
 - International class convention centre, conferencing facilities.
 - Indian Institute of Information Technology and Management, Kerala (IIITM-K), an institution of higher learning in IT on campus.
11. A package of incentives included a subsidy of 20 per cent on capital investment (subject to a maximum of Rs 25 lakh) for new IT units and new investment by the existing units. A 50 per cent subsidy for installation of captive generation in these units (subject to a maximum of Rs 25 lakh) has also been announced in the policy. The establishment of SII and a centre of excellence for IT were also envisaged.
12. See State Planning Board, various.
13. State Planning Board (2002).
14. For a survey of the reasons for the industrial backwardness, see Pillai and Shantha (1997).
15. Some of the enterprises in Technopark pointed out the arrears of investment subsidies for IT units.
16. For example, see the notification, IT industry incentive scheme, Government of Kerala, vide GO(MS) No. 14/2002/ITD, dt. 4 October 2002.
17. A far greater role is envisaged for private sector and multinationals in IT park development, city development, and procurement of software in the states of Karnataka and Andhra Pradesh.
18. In the USA, the services sector contributes almost 80 per cent of the GDP, in France 71 per cent, in Singapore 72 per cent, and in Ireland 65 per cent (Bajpai and Radjou, 2000).
19. It includes the lowest population growth rate (decadal growth rate of 9.42 per cent); highest life expectancy at birth (70 for males and 76 for females); lowest infant mortality (17 per 1,000), and highest literacy rates in the country.
20. For a detailed reading, refer to the *World Development Report, 1999*.
21. As reported in State Planning Board (2002).
22. For a detailed analysis of the labour relations in the IT industry, see the *Indian Journal of Labour Economics*, Vol. 44, No. 1, 2001.

23. Some recent efforts include Fast Reliable Instant Efficient Network for Distant Services (FRIENDS), Akshaya, and IT@ school.
24. The earnings from tourism in the state in 2001 were estimated to be Rs 535 crore.

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THE POWER CRISIS IN KERALA

N. Vijayamohanan Pillai

11

INTRODUCTION

The power sector in India is on the threshold of a radical restructuring, which in some states has assumed significant dimensions. What was once in the realm of a vertically integrated public sector monopoly undertaking has now become functionally unbundled and transformed into independent corporations/companies in these states. So far 16 states (Andhra Pradesh, Arunachal Pradesh, Delhi, Goa, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal) have either constituted or notified the constitution of state electricity regulatory commissions (SERCs). The state electricity boards (SEBs) of Orissa, Haryana, Andhra Pradesh, Karnataka and Uttar Pradesh have already been unbundled/corporatised. The first move towards such reforms was initiated in Orissa, even before the formulation of the Central Electricity Regulatory Commission (CERC) at the centre. The Orissa Electricity Regulatory Commission (OERC) was the first of its kind in the country, designed as an independent regulatory commission to regulate the power sector in the state. Again, Orissa is the only state to have fully privatised the distribution business in the State. The World Bank has sanctioned a loan of 350 million dollars to Orissa for its power sector reforms. Karnataka is the first state in India to have separated generation of power from transmission and distribution (T&D) by setting up the Karnataka Power Corporation Limited (KPCL) as far back as in 1970.

There has been universal unanimity in cognising and recognising the operational and financial inefficiency of the Indian power sector as the causative and promotional strains in the background of (power sector) reforms. Though the SEBs were statutorily required to function as autonomous service-cum-commercial corporations, they were also required, in line with the letters sans spirit of the Venkataraman Committee Report

of 1964, to subserve the socio-economic policies of the state and, hence, not to view power development exclusively from the perspectives of profits or return, as also not to put a heavy tariff burden on the consumers for purposes of replacement of assets and loan redemption. Thus, there was no need whatsoever on the part of the SEBs, at least till the late 1970s, to earn a return on their capital and to contribute internal resources to capacity expansion. This unaccountability culture, in turn, led to gross inefficiency at all levels—technical, institutional and organisational, as well as financial—which in turn got reflected in avoidable cost escalations. This, in the face of an irrational and uncompensated subsidised pricing practice, left the SEBs in general with negative internal resources. At the same time, the traditional sources of investment funds—government loans and subventions—were fast draining, and the so-called ‘fiscal crisis’ at the turn of the 1990s facilitated the ushering in of the ideologies of restructuring. Funds have now begun to flow into the Indian power sector from a number of leading international financial institutions (FIs) on stringent conditionalities of restructuring. Though Kerala had remained—to a good extent—impervious to the incursions of such agencies upon the structure of the SEB till a year ago, clear signs of a surrender have now appeared along with the change of guard in political power and ruling ideology. Thanks particularly to the politically surcharged consciousness of Kerala, unlike in most of other states, there has also emerged an informed platform, though still scattered and nascent, for response and reaction.

This essay discusses these issues. It should be stressed at the outset that we have already shown that the problems confronting the SEBs are just internal to them, and hence what the system requires is not any market-oriented restructuring, but an essence-specific reform that can remove the impediments that stand in the way of the SEBs’ improved performance (Kannan and Pillai, 2002). What follows essentially flows from this fact. The next section gives the Kerala scenario, its plight over time in growth and performance, in terms especially of a lack of planning. The third section discusses its experiences with reform and the concluding section presents some alternatives to the so-called power sector reforms.

THE KERALA POWER SECTOR: GROWTH AND PERFORMANCE

Electrification in Kerala had its first hydroelectric generator of 200 kilowatt (kW) run in a private tea estate (the Kannan Devan Hill Produce Company) at Munnar in the High Ranges in the then Travancore area in 1906. It took more than two decades after that for the government to

come on to the scene by commissioning (on 25 February 1929) a 5 MW thermal station in Thiruvananthapuram exclusively for the royal and administrative uses. The first public sector power project in Kerala, designed on a large scale for commercial uses, came on line in March 1940 with the first unit of 5 MW of Pallivasal hydroelectric power station. Within the next decade, five more units were added to the project to increase its installed capacity (IC) to 37.5 MW. The Sabarigiri hydro-power station of 300 MW of IC, commissioned in 1966–67, was the first (of the two) major power project(s) in Kerala. Idukki, with 780 MW of IC and commissioned in 1976 (stage I) and in 1985 and 1986 (stage II) is the largest hydropower station in Kerala. Together, these two stations constitute about 62 per cent of the total hydropower IC of the 16 stations (1,754.5 MW) in Kerala even today. Kerala currently has two state-owned thermal projects of 234 MW (Brahmapuram and Kozhikode) and a thermal project of the National Thermal Power Corporation (NTPC) (at Kayamkulam) of 350 MW; a wind-farm (Kanjikode) of 2 MW; and a private sector hydroelectric project (Maniyar) of 12 MW also add to the power sector IC in Kerala.

The Kerala State Electricity Board (KSEB), the second SEB to be set up on 31 March 1957 under the Electricity (Supply) Act, 1948, with the prime objective of rationalisation of power development at the state level, inherited an IC of 93.5 MW, that rose to 2,049 MW (excluding the NTPC and private projects) by 2000–01, as against an estimated requirement of about 3,160 MW, as per the 14th Annual Power Survey (APS). However, the growth of the dependable and firm power capacity of this hydro-dominant system was from 58.2 MW to 1,000.19 MW during the same period. That this represents an average annual compound growth rate of only 6.68 per cent against a minimum possible growth rate of 10 per cent of demand speaks volumes, though very generally, for the history of inadequacy of the system.

Table 11.1, as an illustrative proof, shows the widening gaps between the actual consumption (that stands for the capacity of the Kerala power system to meet the demand) and the forecast levels of the potential demand in the last few years. Even the projections of the constrained demand (estimated by Kannan and Pillai, 2002) or the revised lower ones of the 15th APS or of the KSEB-State Planning Board (SPB), stand much higher than the actual consumption. This inadequacy points towards the *smallness* of the Kerala power system, which has generally been acknowledged since the infamous drought year of 1982–83, the year that marked Kerala's power crisis as a persistent reality.

Table 11.1
Actual and Estimated Electricity Consumption in Kerala

Year	<i>Electricity consumption (million units)</i>					
	<i>Actual</i>	<i>Projections</i>				
		<i>Con- strained*</i>	<i>Uncon- strained*</i>	<i>14th APS</i>	<i>15th APS</i>	<i>KSEB</i>
1976-77	2,137.3	2,137.3	2,137.3			
1977-78	2,331.3	2,325.60	2,325.60			
1978-79	2,419.3	2,552.34	2,552.34			
1979-80	2,384.4	2,938.11	2,938.11			
1980-81	2,767.4	3,496.69	3,496.69			
1981-82	2,911.5	4,101.46	4,101.46			
1982-83	2,839.98	4,452.78	4,532.81			
1983-84	2,703	4,662.19	5,009.53			
1984-85	3,376	5,032.52	5,536.39			
1985-86	3,776	5,455.87	6,118.66			
1986-87	3,697	5,955.45	6,762.16			
1987-88	3,626.5	6,340.65	7,473.35			
1988-89	4,387	6,735.06	8,259.32			
1989-90	4,794	7,347.20	9,127.96	6,701		
1990-91	5,331.86	7,965.07	10,087.96	7,326		
1991-92	5,596	8,558.28	11,148.92	8,008		
1992-93	5,838.55	9,113.87	12,321.46	8,686		
1993-94	6,234.16	9,648.83	13,617.32	9,409	8,567	
1994-95	7,027.69	10,279.15	15,049.47	10,169	9,383	
1995-96	7,414.62	10,923.35	16,632.24	10,998	10,116	
1996-97	7,020.74	11,490.33	18,381.46	11,893	10,921	
1997-98	7,716.23	12,181.76	20,314.66	12,861	11,770	15,316
1998-99	9,182.89	13,225.77	22,451.17	13,908	12,666	16,890
1999-2000	9,812.88	14,184.75	24,812.38	15,040	13,617	18,425
2000-01	10,319	15,213.26	27,421.92	16,264	14,632	20,395
2001-02		16,316.35	30,305.91	17,588	15,756	22,623
2002-03		17,499.41	33,493.21	19,020	16,890	24,883
2003-04		18,768.27	37,015.72	20,565	18,106	27,653
2004-05		20,129.12	40,908.70	22,243	19,410	30,477
2005-06		21,588.64	45,211.10	24,053	20,808	34,068
2006-07		23,154.00	49,966.00	26,011	22,099	
2007-08		24,832.85	55,220.97	28,228	23,557	
2008-09		26,633.44	61,028.61	30,418	25,112	
2009-10		28,564.58	67,447.04	32,894	26,770	
2010-11		30,635.74	74,540.51		28,537	

Note: *Projections made by Kannan and Pillai (2002: 147).

Failures in Planning

However, facts corroborate that the system growth in Kerala has never been up to the mark of potential requirement. Till 1966, the KSEB had been restricting new connections. The low accessibility (the system being open to the few rich only) along with these restrictions had rendered the system a much *smaller* one¹ involving, in turn, slow and low growth.² In fact, at the start of the Third Five-Year Plan (FYP, 1961–66), the Kerala system, even though small, experienced a shortage of 6 MW in firm power capacity (FPC), and at the end of the period, as much as 75 MW, resulting in major power cuts, despite energy import from Tamil Nadu (Government of Kerala, 1984: 22). The commissioning of the Sabarigiri project in 1966 and 1967 eased the situation to such an incredible extent that the KSEB and the government suddenly found the system a power-surplus one. Then started the much-praised energy export era and the KSEB also became liberal in giving new connections. Conveniently forgotten here were the dimensional realities of the system pregnant with threatening consequences—that the suddenly discovered surplus was the apparent result of the time-relative smallness of the consumption parameters capable of fast growth. Miserably missing here was any planning worth that name in system management whether in the long run or even in the short run. It needed not much wisdom to see that the addition to FPC from the Sabarigiri project would be inadequate in the near future itself to contain the burgeoning demand, unleashed to grow at more than 10 per cent per annum.³ After four years, in 1972, the Kuttiadi project added 28 MW to the FPC, which, it can be seen, was not enough to contain the actual demand. However, the surplus euphoria continued, and export of energy picked up momentum, but at the cost of internal consumption, which continued to increase at a decreasing and low rate.⁴ Thus, in spite of the claims of being liberal in giving connections, electricity consumption in the state remained low and the system was painted rosy of surplus.⁵

The inflated complacency reached its *ne plus ultra* with the commissioning of the Idukki (stage I) project in 1976, and the authorities now came down completely to rest on their oars, leaving the system seized by an export frenzy. Even with an average designed generation potential of 4,730 million units (MU) (i.e., FPC of 540 MW) only, Kerala generated more than 5,000 MU annually during the four years from 1978–79, 'by slightly over-burdening of the generators, cutting short or even skipping the maintenance shutdowns of machines at the scheduled intervals and not keeping a stand-by or reserve generating capacity to meet an

emergency due to pressing power demand in the southern region, which would definitely tell on the life of the plants in the long run' (Government of Kerala, 1984: 25).⁶ The state consumption still remained pathetically low, in spite of impressive growth in connections and connected load.⁷

It should be noted that the 'monsoon betrayal' of the 1980s was in fact a blessing in disguise to some extent to the power consumption trajectory in the state. As the export frenzy subsided, internal consumption, put under leash during the export era, broke loose gradually and picked up increasing momentum. It is evidenced in the time path of the power consumption in Kerala, which, after the 1980s, began to increase at a much higher rate than during the previous period. Thus, after 1966, when the KSEB became somewhat liberal in providing connections, the number of electricity customers increased at an average annual compound growth rate of nearly 11 per cent and the connected load, at 8.5 per cent till 1980, but the power consumption grew at a rate of nearly 6 per cent only. In 1979–80, consumption in fact dropped by –1.03 per cent over the last year, when the number of connections and connected load increased by about 14 per cent and 8.6 per cent, respectively, and export accounted for about 45 per cent of total sales! During the three years after 1976, when the Idukki (stage I) station was commissioned, internal consumption grew at a low 3.7 per cent per annum, while export at as high as 51.6 per cent! On the other hand, after 1980, internal consumption saw an annual growth rate of 6.8 per cent, against the growth rates of number of connections and connected load of about 8 per cent and 7.3 per cent, respectively. Evidently, once the export drives ceased, the internal power consumption could gain some momentum!

Planning per se has been absent for the long run also. What is technically more relevant and essentially significant for a hydropower system is its FPC, not just its IC. Then comparing the demand to be met by the system with the FPC would be more reasonably and reliably appropriate. A wide gap between IC and FPC is sheer waste of investment, unless timely FPC augmentation is carried out, and sadly this is the Kerala experience. By 1976 (with the commissioning of the Idukki stage I project), FPC was 425 MW (42 per cent of the IC) only, equivalent to 3,723 MU of energy generation potential. On the other hand, the total storage capacity of all the commissioned hydel reservoirs was equivalent to only 3,365 MU, the difference being accounted for by the run-of-the-river flow of water during the monsoons. The average generation potential was just enough, *ceteris paribus*, for at the most two normal years against a state (internal) average load growing at 10 per cent per annum.⁸

Inordinate investment inertia reigned not only in IC expansion programmes, but also in FPC augmentation programmes, such that the wasteful wide gap between the two persisted. Of the two large hydro-projects, Sabarigiri and Idukki, the former currently has an FPC of 153 MW (just 51 per cent of the IC, even after more than 20 years of its existence), and the latter, of 280 MW (a meagre 36 per cent of the IC). Sabarigiri augmentation of FPC (from 138.5 MW in 1967 to 153 MW) took about 15 years to materialise! So did Idukki stage III augmentation (by about 43 MW). As far back as in 1981, the *Economic Review* (Government of Kerala, 1981: 75–76; 1982: 72) accused ‘labour problems, contract failures, rehabilitation problems due to the enactment of the Forest Conservation Act, 1980 and the resultant physical obstruction caused by the local settlers, etc.’ of contributing to ‘the slippage of the earlier completion schedule’. Other four diversion projects (Azhutha, Vazhikkadavu, Kuttiar and Vadakkeppuzha), works on which started during 1987 to 1991, are also entangled in such dangerous time overruns. Thus, the KSEB as well as the government as its controller have functionally failed in effecting a development-based perspective planning not only for IC expansion in correspondence with growing demand, but also for FPC augmentation to an adequate extent of the available IC itself. (A detailed analysis of the time- and cost-overruns of the power projects in Kerala is given in Pillai and Kannan, 2001.)

That power generation in a pure hydro system is just a gamble in the monsoon is not something esoteric. That projects unavoidably involve time overruns in a surcharged atmosphere of excessively pampered and aggressively trained trade union militancy and of irresponsibly manipulative and incorrigibly corrupt contractors under the patronage of political powers requires little wisdom to discern. That even a power system destined to be small by being domestic-sector-dominant⁹ will have its own exponential growth trajectory to be taken care of in capacity expansion planning is only an elementary lesson. And that all these considerations should have gone into a comprehensive, development-based perspective planning mechanism that is to ensure smooth system growth in terms of adequate capacity expansion not only of hydropower but also of thermal backing to the system in order both to meet the exigency of monsoon failure and to strengthen the reliability parameters has unfortunately missed all recognition. Advice and directives have not in fact been in dearth; way back in 1978, the Steering Committee on Energy set up by the SPB in its report on the Plan proposals for the Sixth FYP (1978–83) warned of imminent power shortage in the state and advised the

government to draw up a 'strong case for a Central sector thermal plant' (Government of Kerala, 1978: 31), but not for a state project at all! Reports reveal some allegations that the recommendation (by the Task Force on Electrical Energy under the Steering Committee) to set up a state-owned, coal-based thermal station in Kerala was rejected under compulsions from the KSEB (*Mathrubhoomi*, 14 October 1992).

Another significant casualty was a study entitled 'A Decade Plan to Make Kerala Self-Sufficient in Electricity Generation up to AD 2000', undertaken by a visionary and well-wishing group of KSEB engineers, in 1984. Following the example of the KPCL set up way back in 1970 by the KSEB, these engineers suggested the formation of a holding company with a share capital of about Rs 400 million for power generation in Kerala; the idea was to lessen the financial burden of power development on the KSEB and thus to improve the power supply situation. Detailed plans on a number of hydropower projects to be undertaken by the corporation during the next 20 years were included in the proposal. Thanks to the far more politically conscious trade unions in Kerala, however, the study was simply shelved by the government, that too during the 'unprecedented' power crisis period! That was the Kerala model of power development!

The hydropower potential of Kerala is estimated at 2,301 MW at 60 per cent load factor.¹⁰ That about 76 per cent of this has already been harnessed might be taken as a surprising feat. But wait and consider the case of Tamil Nadu with a hydropower potential of a mere 1,206 MW (at 60 per cent load factor) against an actual hydropower IC of nearly 2,000 MW (as in 1997–98)! While Kerala has remained utterly apathetic to the wasteful flowing away of its hydro resources, Tamil Nadu has successfully managed to make full use even of the inter-state hydro-resources available to it.

The price paid by Kerala for such failure or absence itself of a perspective planning mechanism has been immense in terms of power shortage for quite a long time. Most distressing is the fact that even during this pinching period of power famine, both the KSEB and the government have continued to be negligent and the public at large, indifferent. During the 20 years since 1976–77 (when Idukki stage I was commissioned), Kerala had added only a meagre 482 MW to its IC. And in the later 10 years (since 1986–87, after commissioning Idukki stage II and Idamalayar), a paltry 17 MW! Since the commissioning of the Idukki project, Kerala has been too unfortunate to launch another major power project. Moreover, a large number of power projects (about 16), with a generation potential of nearly 2,000 MU (i.e., about 353 MW, at 60 per cent load

factor, roughly equivalent to the state's then power deficit), have remained locked in at various points of unwarranted time overrun due mainly to labour militancy and contractual corruption. Both the KSEB and the government have failed to rise to the occasion of obligations by strictly and discreetly dealing with the problems with a firm political will for common good.

The most irresponsibly haphazard planning mechanism that characterises the KSEB seems to be an inviolable legacy. Here is an instance. In 1954, before the birth of the KSEB. All the work on the second power station (Sengulam of 48 MW) in the state were almost completed, and the station was about to be commissioned. Only then, did it dawn on the authorities that a transmission line had to be laid to evacuate the generated power! They seemed to have been utterly unaware of the need to seek permission from the forest department, and to put up towers for transmission lines! Now, all in a hurry, they desperately cut down forests and put up, for the time being, teak wood poles instead of towers, and laid an 11 KV line instead of a 66 KV line from the power house to the Pallom (Kottayam) sub-station!

The legacy continued. The coordination of works on generation projects and the corresponding transmission facilities remained a casualty in a number of cases. For example, full utilisation of the potential of the Sabarigiri project when it was commissioned in 1966–67 was held up due to the delay in completion of the transmission lines. The KSEB, as a result, had to continue to import power, worth nearly Rs 60 lakh, from the neighbouring system, which 'was certainly an avoidable transaction ... if there were enough load connected to our system, the additional energy that could have been generated during 1966–67 was about 746 MU. Thus when the Kerala grid had the capacity to generate more than the quantity of energy required in Kerala, we have had to spend a large amount on the purchase of energy', solely due to the 'lack of coordinated approach towards completion of the transmission and distribution systems side by side with the commissioning of projects' (Government of Kerala, 1967: 52–53).

The KSEB had an experience almost similar to the Sengulam tragedy in Idamalayar as well. But the muddle of the last-minute patch-up was unnoticeably drowned in the uproar about the breakage and leakage in the Idamalayar dam!¹¹

A Shrinking Coffer

Thus, both investment inertia and prolonged lag in investment fruition have come to stay, standing in the way of the timely expansion of required

capacity. Fund scarcity in financing power development has been explicitly recognised as the factor responsible for this sorry state of affairs. The unwarranted drying up of the conventional source of funds—the state—is generally accused of having led in part to the crisis. Though the Plan outlay for power development was on the rise in money terms—from Rs 118.5 million in the First FYP to Rs 26,710 million in the Ninth FYP—its share in the total outlay was on the decline—from 39.5 to 26.5 per cent over the same period (Table 11.3). In the Fourth FYP, it was only 10.5 per cent and in the Sixth and Seventh FYPs, a little under 20 per cent. However, there is another facet in this regard that merits serious account, but has been left unaccounted for—that is, even this allegedly inadequate outlay was not utilised fully for all but four FYP periods. Actually the expenditure far exceeded the Plan outlay in these four FYP periods, the Third, Fourth and Eighth FYPs having an expenditure ratio of around 140 per cent of Plan outlay and the Sixth FYP, about 115 per cent. This specifically shows that fund scarcity was not the exclusive cause of the problem, though it was a significant one.

A Cash-Strapped KSEB

While on the one hand, the government has been consistently shirking its power development obligations on the excuse of an apparently shrinking coffer, the only alternative (or contributing) source of funds available—the internal resources of the KSEB itself—on the other hand, has remained weak, though the surplus of revenue over expenditure of the KSEB did remain positive for all but five years (in the late 1980s and early 1990s) after 1957–58 (Table 11.2). The financial morbidity of the KSEB, like most other SEBs, has often called for huge sums of subventions from the government, even for financing its normal activities. Informed opinions in pursuit of the culprits behind the financial sickness of the SEBs have unanimously converged onto a single point of inadequate tariff levels, and demanded continuously monitored, upward revisions of the tariff. We have refuted such flimsy arguments, at the same time maintaining the valid criticism against the prevalent, unscientific pricing practice. We have shown that there does exist sufficient scope for efficiency improvement at various points of operation in the power system that could potentially reduce the supply cost substantially (Kannan and Pillai, 2002). Thus, for instance, it has been shown that with some, quite reasonably achievable, improvement in the operational, T&D, and manpower deployment efficiencies, as well as with 1:1 debt–equity capital structure, the

Table 11.2
Decadal Performance of Kerala's Power System

	<i>Mean and coefficient of variation (percentage)</i>			
	1960s	1970s	1980s	1990s
Utilisation factor (%)	68.79	62.98	80.7	103.15
(CV)	(25.5)	(10.59)	(7.58)	(7.33)
Capacity factor (%)	43.63	48.98	44.19	44.01
(CV)	(19.57)	(15.86)	(22.08)	(12.25)
Load factor (%)	68.58	78.83	60.44	62.71
(CV)	(8.7)	(15.94)	(12.52)	(3.35)
Own sales factor (%)	80.16	84.13	72.92	71
(CV)	(5.78)	(2.32)	(7.05)	(3.52)
Loss factor (%)	16.91	14.34	23.63	19.26
(CV)	(18.21)	(12.5)	(15.4)	(8.31)
Average revenue (paise/unit)	8.09	15	44.45	123.32
(CV)	(15.39)	(31.16)	(26.76)	(41.2)
Average cost (paise/unit)	5.28	10.84	41.96	118.45
(CV)	(18.89)	(23.45)	(45.21)	(10.03)
Per capita consumption (units)	50	87.9	133.63	242.66
(CV)	(31.37)	(12.8)	(19.28)	(17.17)
Consumption per consumer (units) (CV)	2,771.58	2,158.88	1,474.25	1,544.79
Connected load per consumer (kW) (CV)	1.71	1.52	1.3	1.46
Consumption per connected load (units/kW) (CV)	1,623.83	1,417.43	1,130.41	1,177.65
	(8.61)	(5.25)	(7.46)	(11.15)

(contd.)

Table 11.2 (contd.)

	Average annual growth rates (percentage)				Four decades
	1960s	1970s	1980s	1990s	
Installed capacity	15.66	7.08	4.29	3.71	6.98
Maximum demand	10.87	8.83	5.09	6.55	7.76
Generation	13.25	9.62	-0.1	3.03	6.09
Consumption (internal)	10.6	6.57	6.95	7.04	7.48
Sales (total)	12.9	10.04	1.44	7.04	7.44
Energy loss	11.03	7.94	6.14	3.67	8.02
Energy import	-10.5	37.39	42.56	12.93	12.45
Total revenue	19.01	20.95	10.18	24.98	18.13
Total cost	20.59	20.22	14.71	22.77	19.43
Average revenue	5.41	9.91	8.62	16.5	9.88
Average cost	6.81	9.25	13.08	14.44	11.09
Per capita consumption	8.34	4.76	5.62	5.53	5.77
Number of consumers	11.83	10.52	7.37	6.28	9.31
Connected load	11.42	7.68	7.81	4.97	8.68
Consumption per consumer	-1.10	-3.57	-0.38	0.71	-1.67
Connected load per consumer	-0.37	-2.57	0.42	-1.24	-0.57
Consumption per connected load	-0.73	-1.03	-0.8	1.97	-1.1

Source: Estimations based on data from Kerala State Electricity Board Office, Thiruvananthapuram.

Note: CV = coefficient of variation.

Table 11.3
Plan Investment in Power Development in Kerala (Rs lakh)

<i>Plan period</i>	<i>Outlay in power sector</i>	<i>Actual expenditure</i>	<i>Outlay as percentage of total plan outlay</i>	<i>Expenditure as percentage of outlay</i>
Plan I (1951–56)	1,185	1,060	39.5	89.45
Plan II (1956–61)	2,345	2,192	26.9	93.48
Plan III (1961–66)	4,356	6,084	25.6	139.67
Annual Plans (1966–67 to 1968–69)	4,691	4,195	32.9	89.43
Plan IV (1969–74)	7,625	10,740	10.5	140.85
Plan V (1974–77)	12,990	11,057	22.8	85.12
Annual Plans (1978–79 to 1979–80)	8,378	7,060	21.3	84.27
Plan VI (1980–85)	28,007	32,180	18.8	114.90
Plan VII (1985–90)	44,131	41,912	19.9	94.97
Annual Plans (1990–91)	13,542	12,493	21.3	92.25
(1991–92)	15,620	14,642	19.4	93.74
Plan VIII (1992–97)	1,30,000	1,79,643	23.8	138.19
Plan IX (1997–2002)	2,67,100	–	26.5	

Source: Government of Kerala, *Economic Review*, various issues.

KSEB's unit cost of electricity supply in 1997–98 could have been reduced by about 43.3 per cent. This, along with the given average revenue realised in that year, would have yielded a unit commercial profit of about 16 paise per unit of energy sold, instead of the reported loss of about 68 paise per unit! And there still remain resourceful room for efficiency improvement at all other levels of functioning. This plainly points to the poignant fact that had the power system performed efficiently, it could have—complemented by a scientific tariff structure—generated internal resources sufficient for financing capacity expansion programmes, thus also dispensing with the avoidable dependency on the state exchequer. Again, our analysis seems to question the logic and ethic of the widespread demand for tariff rate rises, allegedly required to contain the increasing supply costs and save the SEBs from the crunch, in the context of the continuously accumulating revenue arrears on the other side, that in turn utterly defeats the very purpose of the tariff revision. The revenue arrears of the KSEB in 1997–98 was about 41 per cent of the annual sales turnover (nearly five

months' sales revenue thus being locked up with the consumers). Regular and timely collection of all receivables could increase the KSEB's liquidity and avert the excessive dependency on loan or subsidy.

This financial mis- (or non-) management also has been a legacy for the KSEB. As far back as in 1967, the Government of Kerala appointed a Finances Enquiry Commission 'to enquire into the financial position of the Board' upon the suggestion of the Central Public Accounts Committee (1966–67) that criticised 'the financial discipline in the working of the Kerala State Electricity Board' as 'somewhat slack', in its 67th Report (para 9.96). 'Apart from the irregularities brought to light in the Audit Report mentioned earlier, it had come to the notice of the Government that the financial management of the affairs of the Board was not satisfactory. It was felt that the Board was not exercising proper financial control either over the collection of revenue or over expenditure with reference to the budget estimates' (Government of Kerala, 1967: 2). A number of recommendations to revamp and thus rejuvenate the financial management of the KSEB proposed by the Commission fell—unheeded and unheard—to dust. Commissions after commissions, in no dearth and in real earnest, have come and gone, and recommendations followed suit, to dust with the sheer force of habit. Substantial resources of money and energy were freely spent on diagnoses of the illness—even though it was quite clear to every one—but not an iota of civic conscience on treatment!

And All Leading to—Reforms!

It is against this gloomy, but apparently complicated, background that one should discuss the implications of the imposition of power sector reforms. Things have come to such a pass that reforms are now looked upon as the sole and sure cure-all. As already explained, power sector reforms have become an inevitable necessity¹² because of large decline in capacity addition in the state sector, because the conventional source of funds for capacity expansion programmes—the government budgetary support—has almost dried up in fiscal crises. Also, the mounting receivables of the central sector have begun to threaten their capacity addition plans. Hence, the only way out projected as possible is through the private sector. But, the poor health of the SEBs adversely affects the private sector sentiments. Hence, the SEBs need to become functionally vibrant and financially viable to provide the required security to attract and protract private sector participation. While price reform is a prerequisite for this, sector reform is a prerequisite for price reform (Government of India, 1996: 72).

THE KERALA POWER SECTOR ON THE REFORMS PATH

The Radical 'No' and Its Farcical Practice: The First Phase

The waves of power sector reforms that swept across the world and some parts of India as well left only moderate imprints till recently in Kerala's power sector. It was acknowledged in the previous state government's electric power policy of 1998 (the first of its kind in Kerala!) that the huge capital investment required in the power sector imposes a heavy burden on the KSEB with its weaker financial standing. During the Ninth FYP period (1997–2002), projects in the three sectors of generation, transmission, and distribution involve about Rs 4,380 crore, of which only Rs 350.06 crore can be had from the internal resource generation of the KSEB, provided tariffs are revised regularly, and Rs 735.51 crore from the state government as loans, leaving the KSEB to rely heavily on FIs for the remaining resources. If tariffs are not regularly revised or if arrears build up in revenue collections, the borrowings will have to increase. Given the financial status of the KSEB and its track record, it is doubtful if external loans of this order can be raised. The situation is thus ripe for some attempts at reforms.

The E. Balanandan Committee to Study the Development of Electricity in Kerala (1997) recommended the setting up of a government-owned company—The Kerala Power Development and Finance Corporation Ltd—to develop, finance, and manage the generation of electricity and the construction and installation of power stations and transmission lines in Kerala. The Task Force on Policy Issues Relating to Power Sector and Power Sector Reforms (1997) and the Expert Committee to Review the Tariff Structure of the KSEB (1998; under K.P. Rao), both constituted by the SPB, provided detailed discussions on reforms processes that to a great extent reflect the (then Marxist Party-led) government's ideological prejudices and political compulsions.

In the state's electric power policy, it was clearly stated that the (then Marxist Party-led) government had no intention of unbundling or privatising the SEB. The suggestion to corporatise the three divisions of generation, transmission and distribution was also rejected. However, it was acknowledged that there should be significant changes in the structure and approach of the KSEB. The Task Force had, *inter alia*, stressed that a major change in the work culture in the KSEB be required to eliminate the inefficiency inherent in it and recommended that, as a first step in this

direction, the three operations under its control—generation, transmission and distribution—be compartmentalised and made into profit centres, fully accountable for their results. This arrangement was expected to facilitate the relative efficiencies in each sector and enable the KSEB to take corrective actions more effectively (Government of Kerala, 1998: Annexure 2)

The then government accordingly initiated necessary steps to restructure the functioning of the KSEB in terms of 'profit centres' at the levels of generation, transmission and distribution; three regional profit centres with headquarters at Thiruvananthapuram, Ernakulam and Kozhikode also were established. These regional centres would have control over the electricity supply in the state. The profit centres would have wide autonomous powers in decision-making in several areas, including capital investment, resource generation, appointment of personnel, and so on.

Though the government promised all possible help and cooperation to the independent power producers, only two projects (one mini hydro-power project of 12 MW at Maniyar owned by Tata Tea Estate, and a thermal project of 160 MW at Kochi under the ownership of Bombay Suburban Electric Supply [BSES] and Karnataka State Industrial Development Corporation) have so far been commissioned in the private sector. In 1997, the then government proposed some ambitious plans to set up power projects in the private and public sectors within five years, with a total IC of 5,041 MW (including the BSES, the NTPCs and the KSEB's own thermal projects, works on which had already started that time). However, the fate of these projects, other than those mentioned above, is still not known. Despite the professed commitments and colourful plans, the required firm political will and sense of responsibility to value common good above everything else is conspicuously missing in our governments. The recent so-called 'Kannur-Ennore' controversy is an apt example in point here.¹³

The 'Yes'-Maids of the Soft Loans: The Second Phase

The present (Congress Party-led) state government, however, decided to swim along with the current, by joining the group of the other 15 states in the country already engaged in radical power sector reforms at the terms and conditions of the central government. In August 2001, Kerala signed a memorandum of understanding (MoU) with the Union power ministry, expressing its willingness to undertake power sector reforms. As per the MoU, the KSEB is now to be run on commercial lines and also to securitise

all its dues to the central public sector undertakings (CPSUs). Such securitisation implies that the KSEB ensures that the CPSU outstandings never cross the limit of two months' billing. And, in return for its commitments, the state would be provided by the central government with funds from the Accelerated Power Reforms and Development Programme (APRDP) for renovation and modernisation of its thermal and hydro plants and for improvement of sub-transmission and distribution and metering in the identified circles in the state. The MoU requires the state government to 'desegregate' the KSEB to make it accountable in respect of its functions of generation, transmission and distribution. Accordingly, in April 2002, the KSEB was divided into three 'independent profit centres' with separate administrative set-ups and accounts. The SERC, with three members, also was set up in November 2002.

It should be stressed that the current political leadership in Kerala, with an ideological adherence to liberalisation, is fast committed to large-scale economic restructuring. It should also be mentioned here that the irresistible temptations of the soft loan facilities, tied to restructuring packages, and the attendant openings for big corruption deals explain the political economy of the present drives (Kannan and Pillai, 2001). The recent developments, whereby the state government now stands mortgaged to the Asian Development Bank (ADB) in respect of such a scheme, have already stirred the radical conscience of the state into a flurry of protest. It must be noted that one of the major conditionalities of the ADB loan pertains to the complete restructuring of the power sector with possible privatisation of the distribution circles in the state. Though the government had to backtrack, in the face of stiff resistance by the public at large, on its initial attempt at a steep tariff hike under the ADB direction, it did succeed later in implementing a moderate tariff revision, confirming that a phased tariff revision can lead to the ADB-set desirable level. And the government is determined to impose on the people that which has so far been a radical anathema to them.

CONCLUSION

There is no gainsaying the fact that the Indian power sector badly needs reform. However, an informed opinion would seldom equate reform with restructuring. This is the message of the analysis in this essay of the experiences of the Kerala power system. However, political manoeuvres are on in many states to effect a semblance of some restructuring of the power sector. Orissa is the only reforming state where the distribution sector

(also) is privatised; the move is on in this direction in other reforming states of Karnataka, Andhra Pradesh and Haryana also. It is generally recognised that distribution is the weakest link in the entire structure of power supply system. The massive leakage from this inefficient outlet in the form of subsidised sales and distribution loss, including technical loss and theft, illegal drawal, etc., under protective patronage, have been steadily sapping the SEBs, thus taking them to a no-return point of forced reforms. Plugging such leakage thus constitutes the urgent remedy for all the problems. A general perception in the informed circle endorses immediate privatisation of the distribution sector projected as the only way out (for example, see Morris 2000). Tackling such leakages in many rural/suburban areas involves 'a law and order dimension as well' (Government of India, 1996: 59), and a populist government, so far in the habit of winking at (if not abetting) such criminal errancy, finds it difficult to come out on the front. The government saves its face by leaving everything to the private sector. Thus the private distribution company in Orissa, 'the AES of USA is having to employ goon gangs to install meters', and to collect the dues (*The Hindu Business Line*, 2000). See how easily the problem is solved! A blatant sell-out of governmental obligations!

It is not that there is no alternative to such suicidal sell-out. There have been some informed suggestions on setting up cooperatives at local levels and entrusting them or the local bodies themselves with distribution responsibilities. For example, the Task Force constituted by the SPB on policy issues relating to power sector and power sector reforms cites the good examples of Hukkeri Cooperative in Karnataka and Thrissur Municipality in Kerala. The former is one among the 38 cooperatives in the country set up as conceived by the Rural Electrification Corporation. Power is supplied to these cooperatives at tariffs below the standard bulk rates to enable them to operate with a surplus. In Thrissur Municipality area, a licensee under the control of the Municipality is engaged in electricity distribution in a very satisfactory manner. A number of countries have such alternative arrangements functioning efficiently.¹⁴

All this should not be misconstrued, let us reiterate, as an unreasonable justification for the persistence of avoidable inefficiency in the performance of the SEBs. As we have already noted, inefficiency problems are only internal to the system. There does remain room for remedial exercises meant to remove these problems inhibiting the SEBs' improved performance. What the system requires is only an essence-specific (internal) reform—a reformed work culture under the leadership of an enlightened,

committed, professional management and government—not a disastrous structural reform, as it is fetishistically made out to be now.

Before concluding, it should be stated that there definitely has appeared a silver lining. Thanks to controversial power projects, there has been wide public debate as well as informed discussion, though greater transparency in decision-making, greater public participation (especially from the civil society) and greater information dissemination are still wanting.

NOTES

1. The very small electricity consumption profile of the state might be partly explained in terms of inadequacy, imperfection and interruptions in the T&D system, as rightly identified and pointed out by the state government itself as back as in 1967 (Government of Kerala, 1967: 62 [Annexure 1]).
2. The per capita power consumption of Kerala has always remained much lower than that of its neighbours as well as the all-India average. For instance, in 1960–61, the domestic and industrial per capita electricity consumption in Kerala were only 3 units and 23.5 units, while in Tamil Nadu, these were 4.5 and 27 units and in Karnataka, 3.2 and 31 units, respectively. In 1970–71, these were 4.8 and 60.3 in Kerala; 8.3 and 74.9 in Tamil Nadu; and 7.9 and 83.4 in Karnataka (CMIE 1988). The growth in FPC in Kerala was such that the per capita firm generation potential, after accounting for losses in 1960–61, was only 35 units, while the actual per capita consumption was only 30 units.
3. By 1968–69, the FPC was 282 MW, equivalent to an average designed generation potential of 2,470 MU, including Sabarigiri and Sholayar, and the internal average load was 182.3 MW, equivalent to 1,597 MU, which, growing at 10 per cent per annum, could exceed the capacity after four-and-a-half years.
4. For instance, the annual growth rate, over the previous year, of internal electricity consumption decreased from about 33 per cent in 1967–68 to just 2 per cent in 1971–72.
5. The per capita consumption of electricity in the state was only 72 units in 1971–72 over 61 units in 1967–68. Consumption per customer in the domestic sector in 1971–72 was only 18 units per month.
6. In 1978–79, electricity export from Kerala was as much as 87 per cent of the internal consumption, or about 46 per cent of the total sales! In that year, the state consumption increased by just 3.4 per cent over the previous year, and in 1979–80, it declined to –1.4 per cent, against a 14 per cent growth

- in number of connections and an export of as much as 45 per cent of the total energy sales! The per capita consumption during these two years remained at 96 units and in 1981–82 at 113.1 units only.
7. The very low industrial load in the state might partly explain this low consumption profile; in 1978–79, industrial energy consumption increased by just 1.1 per cent over the previous year, and in 1979–80, it declined by about –6 per cent and in 1981–82, by about –2 per cent. The increased incidence of outages (interruptions) might have also affected the state consumption. The stagnating industrial consumption constituted around 40 per cent of the total electricity consumption in the state during these years, and the growing domestic sector consumption around 10 per cent.
 8. On the other hand, the IC in 1976–77 (1,011.5 MW) was almost adequate to meet the (internal) peak load (or maximum demand, 522.8 MW in that year) for nearly seven years. Thus, at least till the mid-1980s, Kerala seems to have experienced not much peak power deficit, but only energy deficit, due to inadequate FPC, constricted in turn by the limited storage capacity and the run-of-the-river-flow of water. Had there been no water availability constraint, the IC of 1,476.5 MW made available by 1986–87 would have been adequate to meet the (internal) average load till the turn of the 1990s. Here lies the significance of the need for augmenting the FPC, given the IC. But such planning mechanism too has been at a loss.
 9. Domestic sector power consumption accounted for 45.31 per cent of the total energy sales in 2000–01, while industrial consumption accounted for 36.7 per cent only. The share of the former was about 4 per cent only in 1970–71 and of the latter about 66 per cent, whereas these were about 30 per cent and 50 per cent respectively in 1990–91.
 10. Reply to unstarred question no. 154 in the Rajya Sabha on 9 November 1987.
 11. For details, see Kannan and Pillai (2001).
 12. For example, see Government of India (2000: 1).
 13. See Kannan and Pillai (2001) for details on this episode.
 14. It is reported that the National Rural Electric Cooperatives Association (NRECA) of the USA is engaged in helping to form small cooperatives of consumers in villages and to transfer rights of distribution and transmission of electricity to them. This experiment has been a big success in Bangladesh and Costa Rica in recent times, and earlier in the US also. In Bangladesh, the NRECA has helped to form 50 cooperatives serving 2.6 million metres. It has registered collection of nearly 97 per cent of billing. The growth rate also is impressive—some 1,000 connections are added every day! (*Business Standard*, 2000).

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V

TOURISM AND BANKING

INTRODUCTION

That Kerala has emerged as 'the undisputed tourism hotspot of India' can hardly be a matter of dispute. This state, with its catchy promotional logo, 'God's Own Country', has been accorded the status of a partner state by the World Travel and Tourism Council (WTTC)¹ 'in firm recognition of its potential in the tourism sector' (WTTC, 2000). The *National Geographic Traveller*, in a landmark issue in 2000, rated Kerala in the 'Paradise Found' category, among the '50 greatest places of a lifetime'. Kerala has also won the National Award for the 'Best Performing State' for excellence in the tourism sector for three years in succession from 1999.

The state government views tourism as one of the alternatives to develop the economy, especially in the context of limited prospects of the manufacturing sector, problems in the agricultural and traditional sectors, and uncertainties facing the expatriate employment in the Gulf (Government of Kerala, 2002a). According to the Draft Tenth Five-Year Plan (FYP) document (Government of Kerala, 2002b), tourism has emerged as a lead sector of the economy, the state's natural endowments providing the sector with a high potential for generating income and employment.

Thus, it is no longer possible to ignore the vital role that tourism is destined to play in the economy of Kerala. At the same time, careful management of the sector is necessary in order to reap the maximum benefits with the minimum negative impacts and to make it more environmentally and socially responsible. The aim of this paper is, however, quite limited; it only attempts to present the development of the tourism sector in the state, especially over the 1990s.

This essay is divided into four sections. Section I gives a general introduction to tourism and attempts to place Kerala on the international tourism map. Section II deals with the growth indicators and agencies in the field of tourism development in Kerala. Section III gives some details

on the tourism supply aspects in the state and briefly touches upon the impacts of tourism. Section IV concludes with an attempt to look forward into the future.

SETTING THE STAGE

Tourism,² on the scale that we acknowledge today, is essentially a post-World War II phenomenon. Since the second half of the 20th century, it has become one of the largest and most rapidly growing sectors of the world economy, with the annual world tourist arrivals showing a remarkable growth—having increased from a mere 25 million in 1950 to 697 million in 2000, with an average annual growth rate of 7 per cent. International tourism receipts have shown a higher average annual growth rate of 11 per cent, touching US\$ 476 billion at current prices in 2000. According to the WTTC, tourism is already the world's largest industry, contributing to nearly 11 per cent of the world's gross domestic product, 7.9 per cent of exports, and 9.4 per cent of capital investment and providing 8 per cent of employment.

Many developing countries have responded positively to tourism as a source of foreign exchange and a generator of employment. Over the years, their share of international tourism has shown a consistent increase, from a mere 18.8 per cent in 1963 to 30.5 per cent in 1997. But by the early to mid-1970s, it became more or less clear that tourism does not necessarily offer them a panacea. While generating revenue and employment, tourism also brings with it a host of environmental, social and cultural problems (Lea, 1988; Mathieson and Wall, 1982).

Increased interest in alternative forms of tourism has been perceived as a response to the exploitation associated with mass tourism.³ These new forms of tourism, though known under various labels—'appropriate', 'responsible', 'soft' and 'green' to name a few—aim to minimise the environmental and sociocultural impacts of tourism and show a concern for development and for participation and control by the local community, thus echoing the notion of 'sustainability'⁴ (Mowforth and Munt, 1998).

While tourism still remains a sector driven by the motivation of profit by investors, especially the private sector, there is definitely an attitudinal change at least in some peripheral areas for the most important stakeholder in the tourism sector, namely the local community at the destination. This has led to a long-run debate of conservation versus exploitation of tourism resources—both cultural and environmental—in a number of destinations.

Tourism in South Asia, India, Kerala: Some Indicators

South Asia

The World Tourism Organisation (WTO)⁵ divides the world into six regions: Africa, Americas, East Asia-Pacific, Europe, Middle East and South Asia. Out of these, Europe and the Americas are the main tourism-receiving regions, while the share of South Asia is the lowest, both in terms of international arrivals and receipts.⁶ But, in spite of the low share, tourism in South Asia has been growing at a fast rate, higher than the world average, while the more traditional tourism-receiving regions like Europe and the Americas have been experiencing a below average growth (Table 12.1). *Tourism 2020 Vision* (World Tourism Organisation, 2002) forecasts international travel arrivals to touch 1.56 billion in 2020. South Asia is expected to grow at over 5 per cent per year compared to the world average of 4.1 per cent.

Table 12.1
Market Shares and Growth Rates of Tourism Regions, 1990–2000

Region	Market share of arrivals (percentage)		Market share of receipts (percentage)		Compound growth rate of arrivals	Compound growth rate of receipts
	1990	2000	1990	2000		
World	100	100	100	100	3.9	5.5
Africa	3.3	3.9	2	2.3	5.6	6.8
Americas	20.5	18.4	26.3	28	3.0	6.1
East Asia-Pacific	11.9	15.7	14.9	17.2	6.5	6.9
Europe	61.7	57.8	54.4	49.1	3.3	4.5
Middle East	2	3.3	1.7	2.4	9.0	9.1
South Asia	0.7	0.9	0.8	1	6.0	7.9

Source: Computed using data from *Statistical Tables 2001*, WTO.

India

India is one of the countries of the South Asian region, the others being Afghanistan, Bangladesh, Bhutan, Iran, Maldives, Nepal, Pakistan and Sri Lanka. Among the South Asian countries, India gets more than 50 per cent of the visitors and 75 per cent of receipts. But in global terms, India's share of international tourism is very small, both in terms of arrivals (0.4 per cent) and receipts (0.6 per cent). The country, however has a

substantial domestic tourism⁷ with a rich tradition, 94 per cent of which is estimated to be pilgrim tourism.

In the first three decades of Indian planning, little attention was given to tourism, as there were more pressing needs in other sectors. That the first Tourism Policy of the country was formulated only in 1982, nearly 35 years after Independence, speaks for the slow pace of organised growth. Even then, the activity seemed to be confined more to a sectoral growth strategy for tourism rather than an integration of tourism into the overall scheme of development (Bezbaruah, 1999).

In spite of its vast size and potential, India has only a handful of tourism destinations (other than pilgrim centres frequented by domestic tourists). They are the 'Golden Triangle', covering Delhi, Agra (Uttar Pradesh), and Jaipur (Rajasthan), and the states of Goa and Kerala. Of these, Kerala came into prominence only from the 1990s, but ever since, its market share of tourism has been steadily increasing and it has been getting media attention from all over the world, as the 'green gateway' to India.

Kerala

One of the most densely populated states in India, Kerala is a consumer economy with an abysmally low share (0.4 per cent) of the country's total food grain production. It ranks first among the Indian states in terms of the Human Development Index (HDI),⁸ but it also ranks first as regards incidence of unemployment. In terms of the per capita net state domestic product, Kerala ranks seventh. The major share of employment in the state is through the tertiary sector (49.9 per cent for 1999–2000) (Government of Kerala, 2003). This shows that Kerala's economy is becoming increasingly dependent on the services sector,⁹ of which tourism is a part. It is felt that compared to the other new identified thrust areas like information technology (IT) and biotechnology, an already well-established sector like tourism can take off more easily in Kerala (Government of Kerala, 2002a). It is in this context that tourism gains a sense of importance that never existed earlier.

In December 2002, the WTTC along with Oxford Economic Forecasting computed the Tourism Satellite Accounting (TSA)¹⁰ for Kerala. According to this study, Kerala's travel and tourism economy employment would triple from 0.7 million to 2 million. Further, the growth rate of travel and tourism demand per annum over the coming decade for Kerala (11.6 per cent) is higher than, not only that of India (9.7 per cent), but also of Turkey (10.2 per cent), which has so far been the highest (World Travel and Tourism Council, 2002).

TOURISM IN KERALA: GROWTH INDICATORS AND INITIATIVES

Tourism in Kerala is of fairly recent origin as can be clearly seen from the trend in the tourist arrivals and receipts, which can be regarded as the major indicators of tourism in any region. Conscious efforts to develop tourism in Kerala date back to the late 1980s, till which time, tourism was a neglected sector. The current department of tourism in the state has its roots in the State Guest Department of the erstwhile Travancore state, whose functions were limited to providing hospitality to state guests. The existing department continues to handle both hospitality functions and estate duty,¹¹ but the focus shifted in favour of tourism planning, development, and marketing in the 1980s.

Tourist Arrivals: International and Domestic

International tourist traffic to Kerala has been growing remarkably, during the decade 1990–2000, the arrivals nearly tripling during this time frame.¹² A comparison of the figures for all-India and Kerala from 1990 onwards reveals that Kerala's share of international tourism has also shown a steady increase, from 3.87 per cent in 1990 to 7.93 per cent in 2000. It must be mentioned in passing that 2001 has been a bad year for tourism, the 'September 11 attack' in the US, creating an unprecedented confidence crisis in the tourism sector. But what is interesting to note is that while the overall arrivals in India dipped by 4.2 per cent, those in Kerala dipped by only 0.5 per cent (Table 12.2).

Domestic tourism in the state has also shown a continuous increase over the 1990s (Table 12.3). In contrast to international tourism, which dipped by 0.5 per cent in 2001, domestic tourism was hardly affected and showed a positive growth rate of 4.5 per cent. The state has made a consistent and concerted attempt to promote domestic tourism in recent years with a view to offset any probable setbacks in international tourism, which is vulnerable to external factors.

Foreign Exchange Earnings

The amount of direct revenue earned is dependent on three variables, namely (*a*) the number of tourists, (*b*) average length of stay, and (*c*) average daily expenditure. The Department of Tourism has estimated the earnings from foreign tourists on the basis of sample studies on the expenditure pattern and the average duration of stay of the tourists. The

earnings show a rise from Rs 26.99 crore in 1990 to Rs 525.3 crore in 2000 (Table 12.4).

Table 12.2
International Tourism through the 1990s

<i>Year</i>	<i>FTA (I)*</i>	<i>Percentage change</i>	<i>FTA (K)**</i>	<i>Percentage change</i>	<i>Percentage share</i>
1990	1,707,158		66,139		3.87
1991	1,677,508	-1.74	69,309	4.79	4.13
1992	1,867,651	11.33	90,635	30.77	4.85
1993	1,764,830	-5.51	95,209	5.05	5.39
1994	1,886,433	6.89	104,568	9.83	5.54
1995	2,123,683	12.58	142,972	36.73	6.73
1996	2,287,860	7.73	176,855	23.70	7.73
1997	2,374,094	3.77	182,427	3.15	7.68
1998	2,358,629	-0.65	189,941	4.12	8.05
1999	2,481,928	5.23	202,173	6.44	8.15
2000	2,649,378	6.75	209,893	3.82	7.92
2001	2,537,282	-4.23	208,830	-0.51	8.23

Source: Economic Review, Government of Kerala, various issues.

*Notes: *FTA (I)—foreign tourist arrivals in India; **FTA (K)—foreign tourist arrivals in Kerala.*

Table 12.3
Domestic Tourism through the 1990s

<i>Year</i>	<i>Number of tourists</i>
1990	866,525
1991	948,991
1992	994,140
1993	1,027,236
1994	1,284,375
1995	3,915,656
1996	4,403,002
1997	4,953,401
1998	4,481,714
1999	4,888,287
2000	5,013,221
2001	5,239,692

Source: Economic Review, Government of Kerala, various issues.

Table 12.4
Foreign Exchange Earnings in Kerala

<i>Year</i>	<i>Foreign exchange earnings (Rs crore)</i>
1990	26.99
1991	28.28
1992	59.75
1993	105.72
1994	116.11
1995	158.76
1996	196.38
1997	273.2
1998	302.08
1999	416.07
2000	525.3

Source: Tourist Statistics, Department of Tourism, various issues.

New Initiatives in the late 1980s through to the 1990s

Tourism had always been a low priority sector in terms of governmental planning as clearly evident from the Plan allocations. Till the Ninth FYP, tourism received less than 1 per cent of the total plan outlay, but substantial change occurred with the Tenth FYP allocating nearly 4 per cent of the total plan outlay to tourism. The Tenth FYP allocation of Rs 826 crore is about six times higher than that of the Ninth FYP (Rs 140 crore). The annual plan allocations also indicate a remarkable increase, with that of 2002–03 being double that for 2001–02 (Table 12.5).

Table 12.5
Annual Plan Allocations

<i>Year</i>	<i>Allocation (Rs crore)</i>	<i>Percentage change</i>
1995–96	17.3	
1996–97	29.2	68.8
1997–98	36	23.3
1998–99	37.2	3.3
1999–2000	36	-3.2
2000–01	46	27.8
2001–02	40	-13.0
2002–03	80	100

Source: Government of Kerala, 2002.

The central allocation for tourism development in the state also has shown an increase during the last few years (Table 12.6).

Table 12.6
Central Allocation

<i>Year</i>	<i>Allocation (Rs crore)</i>
1995–96	2.10
1996–97	2.36
1997–98	2.77
1998–99	6.99
1999–2000	9.30
2000–01	5.93
2001–02	4.40

Source: Economic Review, Government of Kerala, various issues.

Agencies Involved in Tourism Development

The four major areas in tourism development are infrastructure, tourism products, human resources and marketing. The major agency involved in the development of tourism in the state is the Department of Tourism. Initiated as a department for hospitality and estate functions, this department started focusing on tourism aspects only from the mid-1980s. As the most important and nodal agency, the department is the coordinator and facilitator and also plays a regulatory role. The major activities include development of infrastructure and tourism products; destination development; planning, publicity, marketing, and promotion; human resource development; and investment promotion.

The state department is assisted by a number of agencies: Kerala Tourism Development Corporation (KTDC), Tourist Resorts Kerala Limited (TRKL), Bekal Resorts Development Corporation (BRDC), Thenmala Eco-tourism Promotion Society (TEPS), District Tourism Promotion Councils (DTPCs), Kerala Institute of Tourism and Travel Studies (KITTS), Kerala Institute of Hospitality Management Studies (KIHMS) and Institute of Hotel Management and Catering Technology (IHMCT) under the Government of India. In addition to these, the state has an active private sector in both the travel and hospitality sectors.

The KTDC, a commercial public sector company in the field of tourism concerned with hoteliering, tours and travels, and publicity, was formed in 1965. It pioneers the building of basic infrastructure needed

for the development of tourism in the state. As 'the official host' to 'God's Own Country', KTDC today is the largest hotel chain in Kerala, with over 60 properties across the state, which include a range of luxury and budget hotels as well as Yatri Niwases and motels. It also has central reservation systems and organises conducted tours.

TRKL, a subsidiary company of the KTDC formed in 1989, has been designated as the nodal agency for promoting private investment. In association with the Taj and Oberoi hotel chains, the TRKL has established two joint sector companies—Taj Kerala Hotels and Resorts Limited and the Oberoi Kerala Hotels and Resorts Limited. The total investment by the TRKL being Rs 12.50 crore in the former and Rs 54.40 lakh in the latter.

In 1993, Bekal in north Kerala was selected as a Special Tourism Area by the Government of India. The BRDC was set up for the integrated tourism project at Bekal. The initial cost of the project was envisaged at Rs 130 crore, which was later scaled down to Rs 65 crore, the government's equity contribution being Rs 35 crore. The BRDC has confined its activities to acquisition and development of suitable land for resorts, provision of essential infrastructural facilities, development of destinations, and identification of new possibilities of tourism to popularise the destinations at the national and international levels.

As a novel initiative to permit small-scale activities at the district level, DTPCs were formed in all the 14 districts of Kerala in 1988. With the District Collector as the Chairman and people's representatives and other officials as members, the DTPCs coordinate the development of less-known tourist centres in the districts.

Eco-tourism¹³ initiatives

Realising the importance and marketability of eco-tourism, the government made a beginning by forming TEPS in 1998, under the Travancore–Cochin Literary, Scientific and Charitable Societies Act of 1955. The main aim of TEPS is to develop the Thenmala dam and its surroundings as a major tourism destination, to promote eco-tourism on the principles of ecological sustainability in the surrounding areas, and to develop a well-planned tourism destination with emphasis on sustainable tourism development.

A master plan is also being prepared for promoting tourism in the 12 wildlife sanctuaries and two national parks of the state, targeted towards specialised nature interest groups and eco-conscious tourists. This scheme,

operating within the overall ambit of the Wildlife Protection Act, Forest Conservation Act, National Forest Policy Act, 1988, and Judicial Directives, will be supply-driven and will strive to create a sense of awareness about the product to the user and create employment opportunities at the local level.

Human Resource Development

The establishment of KITTS in 1988 gave a tremendous fillip to generating a tourism-oriented climate in the state by nurturing the human resources aspect, which is one of the key catalysts of tourism. KITTS was recognised as the Southern Regional Chapter of the Indian Institute of Tourism and Travel Management, Gwalior, the national institute responsible for tourism education in the country in 1989. Today, KITTS has developed into one of the leading tourism training institutions in India, offering a range of short-term and diploma courses in travel and tourism management relevant to the needs of the industry. In addition to conducting in-service training programmes for managers of small and medium hotels and guesthouses, personnel from tour and travel agencies, officers from the forest and tourism departments, and DTPCs, KITTS also reaches out, through short-term programmes, to the personnel who directly interface with the tourists, such as taxi and coach drivers, tourism information personnel, customs and immigration personnel, and the tourism police. The KIHMS was established in 2000 to impart skills in the hospitality sector.

In 1990, the state set up one of the 21 IHMCTs under the Ministry of Tourism, Government of India, at Kovalam. On an average, this institute has an intake of 150 students a year, for a diploma or a degree in hotel management and catering technology. The presence of these pioneering institutions, in addition to creating an atmosphere in the state for travel and hospitality sector education and employment, led to a mushrooming of training institutions in the private sector. In order to ensure that the quality of human resource development does not get diluted, the Department of Tourism, in 1995, launched a certification and approval scheme for tourism and hospitality education institutions.

Aggressive Marketing

It was in the 1990s that Kerala Tourism first started participating as a 'standalone destination' in international tourism fairs, showcasing its tourism products. Over the years, the participation has been strengthened

by active involvement of the private sector—both travel trade and hospitality sectors. Kerala has been a regular participant in the world's largest travel marts, the International Tourism Exchange, Berlin, and the World Travel Market, London, since 1993 and in the Arabian Travel Mart since 1995. In addition to these, the state has also been participating in the domestic travel and tourism trade fairs like the South Asia Travel and Tourism Exchange and conventions of the Travel Agents Association of India (TAAI), the Indian Association of Tour Operators (IATO), and the Pacific Asia Tourism Association (PATA). Direct participation in the travel marts not only ensures successful marketing, but also provides a learning opportunity. From 2000 onwards, the Department of Tourism, jointly with the private sector in travel and hospitality sectors, has been conducting the Kerala Tourism Mart at Cochin to showcase the tourism products of South India in general and Kerala in particular, inviting the international players in the market.

From the mid-1990s onwards, the Department of Tourism started shifting its focus from the print media to the electronic media, commanding new marketing strategies using the latest IT developments. In addition to having its own web site,¹⁴ Kerala Tourism has also brought out a number of promotional CD-ROMs. The state won the Government of India award for the most innovative use of IT in 2001. Kerala Tourism is also the first state tourism department to introduce a toll-free telephone system. Another unique and successful strategy adopted by the state is roping in travel writers and celebrities as brand ambassadors and using their works for promotional activities.¹⁵

Government as a Facilitator and Regulator: Incentives, Controls and Taxes

Ever since tourism was declared an industry in 1986, (Kerala being one of the first state governments to do so), the government has been acting as a facilitator and catalyst, encouraging private participation in the sector. The government provides investment subsidy of 10 per cent of capital cost¹⁶ subject to a maximum of Rs 10 lakh, with additional subsidy of 15 per cent of investment in pollution control facilities and equipment, subject to a separate ceiling of Rs 5 lakh. Projects with capital investment exceeding Rs 50 crore are also considered for special incentive packages, except tax-based incentives, on a case-to-case basis. The government is also considering a special package of incentives for channelising foreign direct investment in tourism and infrastructure projects. All approved

tourism units are eligible for electricity tariff concession on par with industrial units, and are exempted from payment of not only electricity duty for a period of five years from the date of commercial tourism operation, but also building tax, on par with industrial units, and also entertainment tax, for the first seven years of commercial operations. A major incentive for the hospitality sector in the current year's budget has been the abolition of luxury tax levied by the state governments¹⁷ as well as the continuation of luxury tax exemption by the centre.

In order to maintain quality control, the Department of Tourism has introduced schemes in the case of houseboats and Ayurvedic centres, which are the unique selling propositions (USPs) of Kerala Tourism and have proliferated in recent times. The houseboats are graded into Gold and Silver Categories and a Green Palm Certificate as a symbol of eco-friendliness is issued to those that adopt environment-friendly practices in operation. Ayurvedic centres are not only given approval by the Department to ensure safety and health regulations, but also classified under Olive Leaf and Green Leaf categories, indicating the difference in the level of quality of facilities and services provided by them.

Role of the Private Sector

Private sector investment, according to *Tourism Vision 2020*, is the backbone of Kerala's tourism sector. Some international and national hotel chains, which have established hotels and resorts in the state, are the Taj, Oberoi, Casino, Best Western, Golden Tulip, Mahindra Resorts and Le Meridian. The private sector has been able to disperse tourism activities over a larger area, by opening hotel and resort ventures in Poovar (Thiruvananthapuram), Marari (Alappuzha), Vythiri, Kalpetta and Mananthavady (Wayanad). Tour operators have also played crucial roles in the development of Kerala as a destination, by developing and showcasing the unique products of the state. In addition to local operators, many leading tour operators in India feature Kerala prominently in their tourism brochures. A Joint Task Force focusing on private-public partnerships has been constituted with the major actors of the industry as members to act as advisors in the tourism development activities.

Private enterprise has also played a vital role in the positioning of Kerala as a favoured destination. Most tourism products of Kerala, especially the houseboat holidays and Ayurvedic packages, started in a small way through local enterprise. This has gone a long way in ensuring community involvement in tourism activities.

TOURISM SUPPLY IN KERALA

Kerala, a north–south linear state, has the unique advantage of being able to offer a wide variety of tourist attractions within a small area of 38,864 sq. km, thus qualifying for the best venture for ‘multi-destination tourism’. Tourism supply can be considered as comprising physical, cultural, event, activity, and service resources. The most important factor in Kerala’s tourism product is the physical environment—comprising beaches, backwaters, and hill stations—which is perceived as ‘green’. In addition to this, the state also has a rich cultural environment, with its many traditional art forms, pilgrim centres and events like the Onam celebrations, the Nehru Trophy Boat Race, and Thrissur Pooram. Niche activities like Ayurvedic health packages are an important aspect of tourism in the state. Service resources, sometimes referred to as tourism infrastructure, comprise mainly transport, accommodation, reception, catering and services like repairs, banks, currency exchange, police, medical services, communications, water supply and sewage facilities. Certain aspects of the services like banks, currency exchange, communications, tourism police and medical services are fairly well-developed in Kerala.

Important Destinations and Products

Kerala’s 600-km long coastline offers some of the best beaches in India, the most popular being the Kovalam beach in south Kerala. A little to the north of Kovalam is the Varkala beach, which attracts a large number of foreign tourists. The other important beaches are Kappad, Muzhapillangad and Bekal, all in North Kerala. The Western Ghat region in the east has some of the finest hill stations, like Munnar; 14 wildlife sanctuaries, of which the most famous is Thekkady (Periyar Tiger Reserve); and two national parks—Silent Valley and Parambikulam. The Periyar Tiger Reserve is also one among the seven Protected Areas selected for the implementation of the India Eco-Development Project (1996–2002) by the World Bank jointly with the state government. The tranquil backwaters of Kerala, the most important being Vembanad and Ashtamudi, are unique owing to the innovative tourism product—the ‘kettuvallom’ or the traditional houseboat. These tourism products have brought Kumarakom in Kottayam, Kollam and Alleppey regions of Kerala on to the tourism map.

Ayurveda, the health tourism product is another USP as far as this state is concerned. The natural abundance of forests with herbs and medicinal plants and an equable climate with monsoons help bring out the best in

Ayurvedic curative and rejuvenation packages. With the mushrooming of Ayurvedic treatment parlours, the state government has brought in quality control checks through routine inspections and issue of certificates.

Kerala is immensely rich in its unique art forms, culture and heritage.¹⁸ The performing arts of the state like Kathakali, Koodiyattam, Mohiniyattam and Ottam Thullal; ritual arts like Theyyam, Tholpavakkoothu and Kavadiyattam; and martial art forms like Kalaripayattu are unique in their style and form. Of these, Koodiyattam, one of the oldest art forms of Kerala and the only surviving form of the ancient Sanskrit drama, has been recently declared by the United Nations Educational, Scientific and Cultural Organization as a world heritage.

The traditional festivals of Kerala like the Thrissur Pooram and the Snake Boat Races in the backwaters are colourful social events that reflect the vibrant culture of the land and its people. In addition to this, the Department of Tourism also organises annual events like the Onam celebrations, the Food Festival and the Nishagandhi Dance Festival, showcasing the tradition and culture of the whole country. The state government now holds a culture tour, centred on Kerala Kalamandalam (at Cheruthuruthy), the seat of performing arts of Kerala.

A scheme called Grihasthali has also been brought out by Kerala Tourism to preserve traditional architecture by converting heritage buildings¹⁹ (any building that is more than 50 years old and bears the characteristics of traditional Kerala architecture) into excellent accommodation options with modern facilities. An exclusive package of incentives and financial assistance have been approved to support this scheme.

Tourist Arrivals in Important Tourist Centres

An analysis of tourist arrivals—domestic and foreign—at some important locations in the state shows that foreign tourists are mostly concentrated in Thiruvananthapuram, Kovalam, Kochi, Kollam, Alappuzha and Kottayam, their presence in North Kerala being almost negligible (Table 12.7). The maximum number of domestic tourists comes to Guruvayur, a pilgrim centre. Guruvayur has also been included in the list of pilgrim centres recognised by the Government of India.

Tourist Infrastructure

A place with physical and cultural attractions or any niche product can become a tourist destination only if it has the necessary supporting infrastructure like accommodation, reception, catering, transport and

Table 12.7
Tourist Arrivals at Important Tourist Centres in the State (2000)

<i>Tourist Centre</i>	<i>Domestic</i>	<i>Foreign</i>
Thiruvananthapuram	740,216	35,159
Kovalam	11,519	44,440
Kollam	96,103	8,997
Alleppey	127,719	12,013
Kottayam	140,320	12,876
Thekkady	166,970	21,543
Cochin	774,087	51,726
Trichur	255,731	1,804
Guruvayur	1,120,961	253
Palghat	300,888	1,517
Kozhikode	496,060	5,159

Source: Tourism Statistics, 1999 and 2000, Department of Tourism, Government of Kerala.

communications in addition to hospitality and general community services. While transport and accommodation are the major sectors, others which include a tourist-friendly policy, community attitudes, pedestrian signposts, tourist information centres, availability of tourism promotion material, communication facilities, banking facilities, medical care, water supply, sewage facilities, and electricity are also equally important.

In the field of communications, Kerala's tele-density of 5.56 has been the highest in the country, almost double that of the all-India figure in 2000. The state has also tourist police deployed at important tourism centres and banking and medical care facilities, but in the field of water supply, sewage facilities and electricity, it has the problems of any developing area. The roads leading to many of the tourism destinations also require improvement. The Department of Tourism has identified schemes in select destinations—Thiruvananthapuram, Kovalam, Ponmudi, Munnar, Thekkady, Kochi, Ashtamudi-Kollam, the backwaters, Varkala, Kumarakom, Kozhikode, Wayanad and Sabarimala—which will help augment infrastructure, during the Tenth FYP. The schemes are basically related to road improvement, solid and liquid waste management, drinking water provision and power supply upgradation.

Transport Sector

Kerala is basically a long-haul destination. Most of the tourists to the state arrive from West Europe and the USA and, hence, good international air

connectivity and airports are vital. Though a small state, Kerala has three airports handling international travel—Thiruvananthapuram, Cochin (Nedumbassery) and Calicut. Of these, the Cochin International Airport, which was completed with Non-Resident Keralite participation in 1999, won the National Tourism Award for the Best Maintained Tourism Friendly Airport in the country for 2001–02.

The state has a good network of railways and roads, the road density being the highest in the country in terms of length per 1,000 sq. km of area. Roads leading to many tourism destinations, however, need improvement and careful management. The Department of Tourism has also identified a number of roads leading to tourism destinations for implementation care. The motor vehicle population of the state is growing rapidly, with taxi cars doubling and contract carriages/omnibuses showing a nine-fold rise during the period from 1990 to 2002 (Government of Kerala, 2002c).

Accommodation Sector

The accommodation sector has been developed mainly through private sector participation, with the government providing basic amenities, promoting and marketing the destinations, introducing incentive schemes and regulating the quality of the products. In addition to the KTDC, the joint venture and private sector groups have hotel chains in the state. The KTDC runs 12 hotels, of which two at Guruvayur come under the budget category. It also runs nine Yatri Niwases in the budget category and 13 wayside amenities (motels).

In 2001, Kerala had total 5,040 classified rooms, the maximum being in the three-star category. A comparison of the figures for classified hotels for the years from 1999 to 2001 shows that the three-star category accounts for the maximum share, the increase in the number of rooms in this category over this three-year time frame being 107 per cent (Table 12.8). The results of a hotel survey conducted in 2000 by the Department of Tourism reveals that the share of classified hotels is only around 9.3 per cent, the unclassified accounting for the remaining 90.7 per cent.

Impacts of Tourism

The first and foremost projected impact of tourism is a positive economic effect. Unfortunately, tourism is a double-edged sword. While it can bring positive impacts, deleterious impacts on the environmental, social and

Table 12.8
 Details of Availability of Accommodation Facilities in Classified Hotels, 1999–2001

Category of hotels	1999			2000			2001		
	Hotels	Rooms	Beds	Hotels	Rooms	Beds	Hotels	Rooms	Beds
5 star deluxe	1	93	183	1	93	183	1	93	183
5 star	4	445	843	6	594	1,141	6	594	1,141
4 star	9	571	904	9	571	904	9	571	904
3 star	24	1,010	1,872	39	1,555	2,892	46	2,094	3,867
2 star	35	938	1,758	36	919	1,740	34	848	1,604
1 star	24	740	1,312	24	728	1,290	24	728	1,290
Heritage	7	112	290	7	112	290	7	112	290
Total	104	3,909	7,162	122	4,572	8,440	127	5,040	9,279

Source: Government of Kerala, 2003.

cultural fronts cannot be ruled out. A small state like Kerala with a high population density, a low land–man ratio, low productivity and high unemployment is likely to have a number of problems on the way to developing tourism.

The most important economic impacts of tourism are the generation of income and employment opportunities at the destination, although substantially in the informal sector. It also provides additional justification for the development of infrastructure. Tourism creates employment opportunities in hotels and tourists spending money outside the hotels create additional income earning opportunities for taxi drivers, souvenir shops, restaurants, travel agencies and entertainment facilities. The building of hotels and upgradation of infrastructure facilities generate employment in the construction sector. The economic benefits of tourism in Kerala have been evaluated in a study organised by the Department of Tourism in 2000.²⁰

The environmental and sociocultural impacts of tourism in Kerala are much less studied. Kerala has a very fragile ecology, which any development can hardly afford to ignore. Environment being the basis of tourism, the growth of tourism without environmental concerns will lead to a situation of tourism destroying tourism. The Kovalam beach in Thiruvananthapuram is an example of unplanned tourism development.²¹ An obscure area till ‘discovered’ by tourists about 30 years ago, it rapidly rose to fame in the tourist circles as one of the most beautiful beaches in the world. Unfortunately, the expansion of tourism in Kovalam was more a product of tourist demand than a planned supply with the development of the destination and the community as the focus. The net result is that the place still lacks any significant investment in crucial infrastructure, such as drinking water supply and sewage and waste management has become an issue warranting immediate concern. Carrying capacity²² studies have been conducted with respect to emerging destinations like Kumarakom.

While there is no denying that tourism has played a major role in sustaining the culture and art forms of the state, there is a growing concern over the loss of authenticity and the consequences of commodification of the performing arts of Kerala in the name of tourism. Tourism development also challenges the values in the ‘host’ society, especially those of the youth, who are more likely to interact with the tourists on an informal basis and who may be keen to adopt forms of behaviour of the tourists, leading to ‘demonstration effects’ or ‘acculturation’.²³ The pattern of tourism development in Kerala does not separate and isolate the tourists from

the local population as in the case of 'enclave tourism'. Planning for tourism should ensure that it should enrich the culture and enable the dying arts to be revived rather than pollute and corrode the cultural capital of the destination.

THE ROAD AHEAD

The first Tourism Policy for the state was formulated only in 1995, nearly 39 years after the formation of the state, pointing to a rather late start for the tourism sector. This policy stressed on development of infrastructure, tourist products, and human resources and marketing and promotion, without compromising the state's environment and culture. The general thread of the policy has been one of sustainability, although it lacked pinpointing of the methodologies by which controls could be effected to keep the negative impacts of tourism under check.

Tourism Vision 2025 (Government of Kerala, 2002c) is a vision document that projects the sector for the next quarter-century. This document aims to make the state, an upmarket, high-quality tourism destination through rational utilisation of resources with a focus on integrated development of infrastructure sector, conservation of the heritage and the environment, enhancement of productivity and income, creation of employment opportunities, and alleviation of poverty, thereby making tourism the most important sector for the socio-economic development and environment protection in the state. The Vision slogan—'Conserve Culture and Promote Tourism'—contains within itself the essence of the policy measures to be adopted to maintain the destination's objective.

The Vision targets increasing the earnings from tourism at 10 per cent annually and achieving an annual growth rate of at least 7 per cent in foreign tourist arrivals and 9 per cent in domestic tourist arrival. It is also expected to add 200 hotel rooms in star categories, create 10,000 employment opportunities, and innovate and add at least one new tourism product/destination every year. The Action Plan is directed at the following.

- Elevating tourism as an economic and employment priority.
- Pursuing sustainable tourism with a focus on conservation and preservation of heritage.
- Guaranteeing quality services in all sectors of tourism.
- Creating and developing infrastructure through the private sector.
- Stressing on the backwaters, Ayurveda and eco-tourism as the state's USPs.

The policy realistically mentions not only the strengths and opportunities, but also the weaknesses of and threats to the tourism sector in the state. The Industrial Policy, 2001, of the state government also supports viable ventures in the services sector in general and encourages holistic and eco-friendly tourism projects, including Ayurveda. The IT Policy, 1998, has also identified tourism as one of the important areas with the potential for IT application.

Tourism, as an international phenomenon, has become a gigantic instrument in the developmental strategy of many countries. Measuring success in tourism by the growth in tourist receipts, visitor numbers, and international market share, blinds one to factors like economic leakages and costs to the physical and cultural environments. The growth of tourism in any destination must be oriented towards not only meeting its socio-economic objectives but also protecting the environment, the prevailing value system, the cultural identity and the needs of the local population.

Tourism also brings increased competition for limited resources like land and water, the extent of competition being a function of the scale and type of tourism development. Its relationships to environments—natural, social, and manmade—are of both dependence and impact. The optimum level at which tourism can function sustainably has to be ensured by careful design and planning. Hospitality being the central theme in the tourism industry, the concern and priority have always been more for providing what the tourist wants, instead of evaluating the short-term and long-term costs. The government, the private sector, the tourists, and the local community are all stakeholders in this game, and it is question of who benefits from tourism that will ultimately determine the role of tourism in development, especially in developing countries.

Since tourism depends—to a considerable extent—on environmental factors, the general trend towards greater tourism activity can be expected to bring rising pressure on the environment, and on public goods and externalities inherent in our environment, factors which can lead to market failure and necessitate government intervention in tourism development. Thus, tourism as an economic alternative has to be evaluated against the environmental and sociocultural limitations. Tourism in Kerala is no exception.

-
1. The WTTC is the Global Business Leaders' forum for the travel and tourism industry, whose members are chief executives from all sectors of the travel and tourism industry. The activities of the WTTC are non-commercial and directed towards assisting travel and tourism to flourish globally in a sustainable manner, which will benefit all stakeholders.
 2. According to the WTO, tourism comprises activities of persons travelling to and staying in places outside their environment for not more than one consecutive year, for leisure, business, or other purposes. International visitors include 'tourists' (overnight visitors): visitors who stay for at least one night in a collective or private accommodation in the country visited, and 'same-day visitors': visitors who do not spend the night in a collective private accommodation in the country visited (World Tourism Organisation, 2002).
 3. The steady stream of large numbers of tourists to holiday destinations is generally referred to as 'mass tourism'. Although this type of tourism generates considerable income and employment, the sheer volume of tourists places the physical environment and the culture of the destination communities under great pressure.
 4. The WTO has defined sustainable tourism development as that 'which meets the need of the present tourists and host regions while protecting and enhancing opportunity for the future'. It is envisaged as leading to the management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity essential and ecological processes, biological diversity and life support systems (World Tourism Organisation, 1995).
 5. The WTO, with its headquarters at Madrid, is the only inter-governmental organisation that serves as a global forum for tourism policy and issues and as a practical source of tourism know-how and statistics. Its members include 139 countries, seven territories, and some 350 Affiliate Members from the public and private sectors, representing regional and local promotion boards, tourism trade associations, educational institutions, and private sector companies including airlines, hotel groups and tour operators. The WTO has been vested by the United Nations (UN), with a central and decisive role in promoting the development of responsible, sustainable and universally accessible tourism.
 6. There are many countries, especially small island states, which are heavily dependent on the very small share of tourism they get. The Maldives, for example, receives less than 1 per cent of international tourists, but is heavily dependent on tourism, as can be seen from the share of tourism (80 per cent) in its gross national product.

7. Domestic tourism involves people visiting destinations within their own country's boundaries and usually accounts for a smaller proportion of the tourism revenue generated.
8. The HDI is a measure of three critical dimensions of well-being: (a) longevity: the ability to live long and healthy; (b) education: the ability to read, write and acquire knowledge; and (c) command over resources: the ability to enjoy a decent standard of living and have a socially meaningful life.
9. This is the case with the Indian economy also, where 'services' have become the dominant sector, bypassing 'manufacturing'.
10. Tourism is the first activity to use worldwide satellite account standards to measure its impact on national economies, as approved by the UN in March 2000. A satellite account is a term developed by the UN to measure the size of economic sectors that are not defined as industries in national accounts. Tourism, for example, is an amalgam of industries such as transportation, accommodation, food and beverages, recreation and entertainment and travel agencies. The TSA is a new statistical instrument designed to measure these goods and services according to the international standards of concepts, classifications, and definitions, which will allow for valid comparisons with other industries and eventually from country to country and between groups of countries.
11. The Department looks after the hospitality of the state guests and VVIPs and VIPs, maintains residential bungalows of ministers, guesthouses and a fleet of cars. The Department is also responsible for the upkeep and maintenance of 24 guesthouses and a Kerala House at Kanya Kumari and New Delhi, which though mostly used by officials and ministers on tour, are also given out to tourists. In addition to these, it maintains two Yatri Niwases for budget travellers.
12. The major source markets of international tourism to Kerala are the West European nations, with UK topping the list. The largest number of international tourist arrivals in a year is between the months of October and March.
13. There is no widely accepted definition for eco-tourism. The definition accepted by the International Union for the Conservation of Nature is as follows: 'Eco-tourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy, study and appreciate nature (and any accompanying cultural features—both past and present), that promotes conservation, has low visitor impact and provides for beneficially active socio-economic involvement of local populations.' According to the WTO (1998), eco-tourism has been identified as a niche market segment and it is now the fastest growing segment of the tourism industry, almost one-fifth of world tourism.
14. The official web site of Kerala Tourism, www.keralatourism.org, launched on 24 December 1998 is listed in most of the important search engines and

- has been recognised by *PC World India* as one of the 10 best sites in India. Web sites in French and German, which are translations of the official web site in English, were launched by Kerala Tourism in October 2000.
15. The book, *Kerala, God's Own Country* published in 2002, with paintings by M.F. Husain and text by Shashi Tharoor is an example. Yet another example is the film *Water Colours by God*, made by the celebrity cinematographer and film director, Santosh Sivan.
 16. This includes land, building, furniture, furnishings, equipment, landscaping, etc.
 17. Among the South Indian states, Kerala and Karnataka were levying 15 per cent, Tamil Nadu 20 per cent, and Andhra Pradesh 10 per cent as luxury tax.
 18. For details, see Sarabhai (1994).
 19. Any building that is more than 50 years old and bears the traditional Kerala architecture will come under the category of a 'heritage building'.
 20. The study has been conducted by the Tata Consultancy Services. According to the study, the employment generated by tourism during the two-year period under study has been of the order of 7 lakh. The study evaluated the output multiplier as 2.07, income multiplier as 1.54 and employment multiplier as 4.62.
 21. For a narrative of the problems of unplanned tourism development in Kovalam, see Jacob (1998).
 22. Carrying capacity is a central principle in environmental protection and sustainable tourism development. The principle of tourism carrying capacity implies a limitation on tourism growth that may degrade scarce resources, offering a criterion of sustainable tourism development. The concept of carrying capacity is composite and encompasses several elements, namely the physical, the ecological, the cultural, the tourist social, and the host social carrying capacities.
 23. Drugs, alcohol and prostitution are invariably linked to international tourism, although it may be difficult to pinpoint tourism as the only causative factor for these evils.

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DEVELOPMENT OF COMMERCIAL
BANKING IN KERALA
P.D. Jeromi*

13

INTRODUCTION

Kerala has a long history of development of banking and finance as it was evolved in tune with the development of the state as a major trading centre, even before India's Independence.¹ The state's external connections, export/import and migration at a later period, necessitated the development of financial institutions (FIs). The liquidation of the Travancore National and Quilon Bank in 1938 and the failure of Palai Central Bank Ltd in 1960 were the two major events in the development of commercial banking in Kerala.

As in other parts of the country, both formal and informal FIs co-exist in Kerala. Along with formal FIs like commercial banks, all-India financial institutions (AIFIs), cooperatives and non-banking financial companies (NBFCs), there is also a wide network of informal agencies like moneylenders, chit funds, etc., that are engaged in deposit taking and lending activities. Commercial banks play a lead role in the state's financial sector, accounting for four-fifths of deposits and two-thirds of credit of all FIs (Jeromi, 2002). Two major distinguishing features of the working of commercial banks in Kerala are (a) success in deposit mobilisation, especially non-resident deposits (NRD), and (b) apparent lower disbursement of credit. Hence, the focus of discussions on commercial banks in Kerala is centred on lower credit-deposit ratio (CDR).²

It is argued that since the state has not been investor-friendly and has not implemented economic reform measures, banks have not been able

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to expand credit deployment. Recently, however, attempts are being made to convey that the state is not averse to private capital and economic reform measures will be implemented in tandem with the policies of the central government and the neighbouring states. In the context of economic liberalisation measures and the implementation of the Tenth Five-Year Plan (2002–07), it is an apposite time to analyse the development of commercial banking in Kerala and discuss various issues relating to credit deployment. Specifically, this essay attempts to (a) review the progress of commercial banking in Kerala, (b) analyse the trends in CDR and provide a comparative perspective vis-à-vis southern states and also examine inter-district and bank-group-wise variations, (c) assess the level of deployment of credit, and (d) explore the reasons for the low level of credit deployment and offer some suggestions. The study covers the 18-year period from 1985 to 2002 and uses secondary data.

The essay is divided into six sections. Following the introduction, Section 2 reviews the progress of commercial banking in Kerala in terms of growth of deposit and credit. An analysis of trends in CDR in the state and its inter-state comparison are provided in Section 3, which also covers the analysis of inter-district variation and bank-group-wise analysis. To get a better assessment of level of credit deployment, Section 4 examines other parameters of measurement of level of credit. Section 5 explores the reasons for the low level of credit deployment and offers some suggestions. The final section summarises the major observations of the essay and offers concluding remarks.

PROGRESS OF COMMERCIAL BANKING IN KERALA

In spite of the strong presence of many parallel institutions (NBFCs, cooperative banks, private financiers, etc.), the operations of commercial banks in the state have expanded substantially over the years. Of the 51 commercial banks doing business in the state, with a network of 3,318 branches, seven are Kerala-based banks (State Bank of Travancore plus six old private sector banks). At the end of March 2002, Kerala accounted for 5 per cent of total number of bank offices, 4.7 per cent of deposits, and 3.2 per cent of credit disbursed by commercial banks in the country. Despite the high density of population, the average population per bank branch in Kerala was significantly lower at 9,596 as against 15,496 at the all-India level, which indicates the extent of development of banking habits in the state (Table 13.1).

Table 13.1
Major Indicators of Commercial Banking Development in Kerala

Major indicators	June 1969			March 2002		
	India	Kerala	Percentage share	India	Kerala	Percentage share
	Number of branches	8,262	601	7.3	66,276	3,318
Deposits of commercial banks (crore rupees)	4,646	153	3.3	1,097,049	51,656	4.7
Credits of commercial banks (crore rupees)	3,599	105	2.9	683,591	22,062	3.2
Deposit per branch (lakh rupees)	56	25	44.6	1,655	1,557	94.1
Credit per branch (lakh rupees)	44	17	38.6	1,031	665	64.5
Per capita deposits (rupees) ^f	88	73	83.0	10,682	16,224	151.9
Per capita credit (rupees) ^g	68	50	73.5	6,656	6,929	104.1
average population per bank branch (number) ^h	64,000	34,000	—	15,496	9,596	—
Deposits as percentage of national income	15.5	—	—	53.0	65.7*	—

Sources: *Basic Statistical Returns of Scheduled Commercial Banks in India*, March 2001, Reserve Bank of India (RBI), January 2002; *Banking Statistics, Quarterly Handout*, March 2002, RBI; State-Level Bankers' Committee (SLBC), Canara Bank, Thiruvananthapuram.

Notes: ^fRelating to March 2001; ^gBased on population in 2001.

Deposit Orientation

The activities of commercial banks in Kerala are more focused on deposit mobilisation than on credit expansion as evident from the following factors. First, Kerala has a lower share in advances than the share in deposits at the national level. Second, per capita deposit in the state has been substantially higher at Rs 16,224 as against Rs 10,682 at the all-India level and also outstanding deposits as a percentage of the net state domestic product (NSDP), at current prices, at 65.7 per cent were higher than the relevant proportion at the all-India level at 53 per cent (Table 13.1). Third, the average annual growth of deposits has been higher than the growth of advances, especially during the first half of the 1990s (Table 13.2).

Table 13.2
Annual Average Growth of Deposits of Commercial Banks (percentage)

<i>Period</i>	<i>Total deposits</i>	<i>NRD</i>	<i>Domestic deposits</i>	<i>NRD as a percentage of total deposits</i>
1985–1990	13.9	19.4	12.0	27.4
1991–1995	21.4	28.5	18.1	35.5
1996–2002*	16.8	20.4	14.5	45.1
1985–2002*	17.3	22.5	14.8	36.6

Notes: * till the end of March 2002; NRD—non-resident deposits.

A peculiar feature of deposits mobilised by the banks in Kerala is the dominance of NRD. The share of NRD in total deposits in the state has been constantly rising over the years from 27.4 per cent during the second half of the 1980s to 35.5 per cent during the first half of the 1990s and further to 45.1 per cent during the second half of the 1990s (Figure 13.1). In March 2002, NRD as a percentage of total deposits stood at 47.5 per cent. The growth of NRD was significantly higher than the growth of domestic deposits, more so during the 1990s (Table 13.2).

Growth of Advances

Advances of commercial banks in Kerala have recorded a reasonably good annual average growth of 14.6 per cent during the last 18-year period from 1985 to 2002. Data presented in Table 13.3 shows that the annual rate

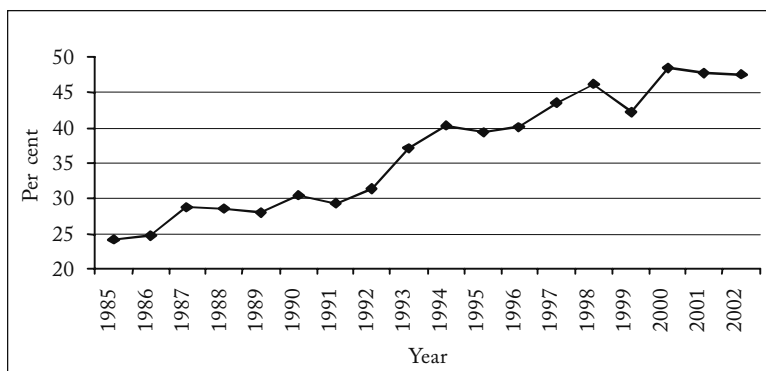
Figure 13.1 Share of Non-Resident Deposits in Total Deposits

Table 13.3
Advances of Commercial Banks in Kerala (Rs crore)

Year	<i>Advances (Kerala)</i>		<i>Incremental advance (Kerala) (rupees)</i>	<i>Advances (India)</i>	
	<i>Rupees</i>	<i>Percentage growth</i>		<i>Rupees</i>	<i>Percentage growth</i>
1985	2,181	—	—	48,953	—
1990	4,118	11.3	417	1,01,453	19.8
1995	7,797	21.0	1,355	2,11,560	28.7
1996	8,961	14.9	1,164	2,54,015	20.1
1997	10,482	17.0	1,521	2,78,401	9.6
1998	12,274	17.1	1,793	3,24,079	16.4
1999	13,577	10.6	1,303	3,68,837	13.8
2000	15,941	17.4	2,364	4,35,958	18.2
2001	19,180	20.3	3,239	5,11,434	17.3
2002	22,062	15.0	2,882	5,89,723	15.3
Average					
1985–90	3,043	13.6	387	70,839	15.7
1991–95	5,939	13.7	736	1,53,971	16.1
1996–2002	14,640	16.1	2,038	3,94,635	15.8
1985–2002	8,357	14.6	1,169	2,19,852	15.9

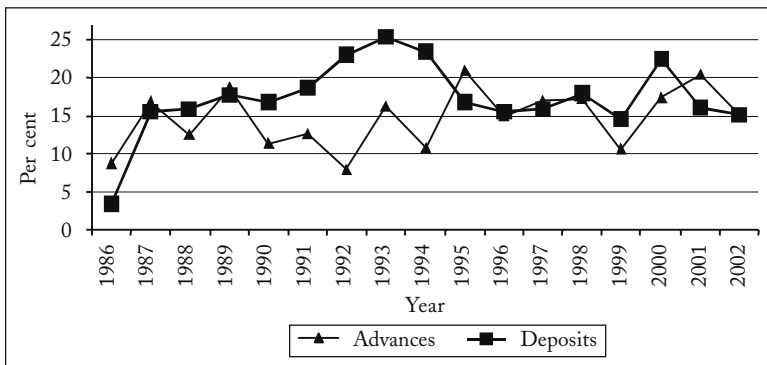
Sources: SLBC, Canara Bank, Thiruvananthapuram; *Handbook of Statistics on Indian Economy 2001*, RBI.

of growth improved considerably from 1993 onwards (Figure 13.2). The average annual rate of growth during 1996–2002 was higher at 16.1 per cent. To get a better picture, we have worked out the incremental advance, which was relatively low till 1994 (below Rs 1,000 crore). However, there was significant increase in incremental advance from 1995 onwards and it was close to Rs 3,000 crore at the end of the study period.

A comparison shows that the rate of growth of credit in Kerala was very close to the rate of growth at the all-India level. During the entire study period, while bank credit in India rose by 15.9 per cent per annum, in Kerala the average growth was 14.6 per cent, only 1.3 percentage points lower. Till the mid-1990s, the rate of growth of credit in Kerala was lower than all-India, but during the subsequent period the rate of growth exceeded in Kerala (16.1 per cent) than all-India (15.8 per cent) (Table 13.3). To get a comparative perspective, we have also estimated the rate of growth of credit in neighbouring states. During 1997–2001, the rate of growth of credit in Tamil Nadu (15.1 per cent), Karnataka (15.4 per cent), and Andhra Pradesh (15.1 per cent) was very close to the rate of growth in Kerala (15.4 per cent). Thus, the above analysis reveals that, in absolute terms, the growth of credit in Kerala was comparable to all-India and southern states.

Purpose-wise classification of outstanding credit of banks reveals that the shares of the agriculture and industry sectors were considerably lower in Kerala as compared with all-India. Though the agriculture sector accounts for nearly one-fourth of the state's income, its share in credit was considerably low at 13.3 per cent. In case of the industry sector, the share in Kerala at 25.2 per cent in 2001 was 18.7 percentage points lower

Figure 13.2 Annual Growth of Deposits and Advances of Banks in Kerala



than all-India. Relatively lower growth and declining capital formation in these sectors are perhaps reducing the credit absorption capacity and the consequent low level of credit. In case of personal loans and trade, the share was very high in Kerala, which is in tune with the fast-rising service sector of the economy (Table 13.4).

Table 13.4
Purpose-wise Classification of Outstanding Credit of
Scheduled Commercial Banks (percentage)

<i>Sector</i>	<i>All-India</i>		<i>Kerala</i>	
	<i>2000</i>	<i>2001</i>	<i>2000</i>	<i>2001</i>
Agriculture	10.0	9.6	13.1	13.3
Industry	46.5	43.9	27.3	25.2
Transport Operators	1.8	1.6	2.6	1.8
Professional and Other Services	3.2	3.6	4.7	4.7
Personal Loans	11.2	12.2	21.7	24.3
Trade	15.6	16.6	17.9	18.9
Finance	4.8	4.9	1.0	1.2
All others	6.9	7.5	11.7	10.6
Total Bank Credit	100.0	100.0	100.0	100.0

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, various issues, RBI.

CREDIT DEPOSIT RATIO: TRENDS AND COMPARATIVE PERSPECTIVE

With the initiation of economic reforms in the state, the widely debated issue of low level of deployment of bank credit has resurfaced in economic discussions. On this issue, the state government and a section of the investors take the position that though banks are mobilising large amounts of deposits from the state, they are not ploughing these back in the form of credit. On the other hand, banks, while admitting the fact that the level of credit disbursement is low in Kerala, point out that banks are not getting enough viable proposals to finance and this is leading to low level of credit deployment. It is also possible to argue that one of the major reasons for the low level of credit deployment in the state is the absence of reform measures till recently, perhaps overemphasising the role of the public sector and taking the view that private capital is not in the interest of the state. Possibly, this approach hindered the growth of private initiative in the state and, hence, accounts for the lower credit expansion in the 1990s.

At the outset, it may be noted that the low level of CDR in the state is not a new phenomenon; during the last three decades, only on six occasions has the state had marginally higher CDR than that at the all-India level. In recent times, what is most striking is not the level of CDR below the national average, but the widening gap between the ratio in the state in comparison with the all-India level. Till 1991, the fall in the ratio in the state was more or less in tune with the declining trend at the all-India level, mainly due to the rise in statutory reserve requirements of the banks. However, since then the CDR in the state has been declining faster than the decline/steady level at the all-India level, particularly after 1994 (Figure 13.3). From 1995–2002 (till March), on an average, the CDR in Kerala was 13.2 percentage points lower than at the all-India level. The latest available data pertaining to June 2002 revealed that the CDR in the state was 14.8 percentage points lower than the all-India level. If NRD is excluded from the total deposits in the state, the CDR rises to around 70–80 per cent (Table 13.5).

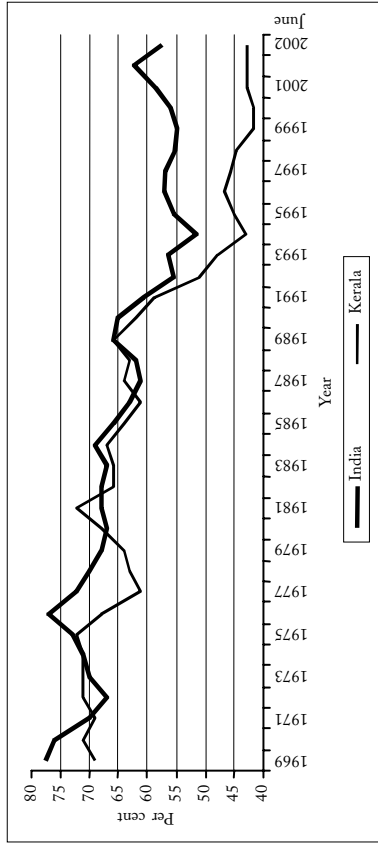
Table 13.5
Credit-Deposit Ratio in India and Kerala (percentage)

<i>Year</i>	<i>India</i>	<i>Kerala</i>	<i>Percentage point difference</i>	<i>CDR excluding NRD (Kerala)</i>
1969	77.5	69.0	-8.5	
1975	73.0	72.0	-1.0	
1980	67.0	68.0	+1.0	
1985	66.0	64.0	-2.0	
1990	65.0	62.0	-3.0	87.6
1995	55.6	45.2	-10.4	74.0
1996	57.3	46.9	-10.4	74.0
1997	56.8	45.7	-11.1	79.0
1998	55.3	44.7	-10.6	83.0
1999	54.8	41.8	13.0	75.0
2000	56.0	41.7	-14.9	84.0
2001	58.5	42.8	-15.7	81.6
2002*	62.3	42.7	-19.6	81.3
2002#	57.5	42.7	-14.8	83.5

Sources: Report on Trend and Progress of Banking in India, various issues, RBI; SLBC, Canara Bank, Thiruvananthapuram.

*Notes: *In end-March; #In end-June.*

Figure 13.3 Trends in Credit-Deposit Ratio in Kerala and India



Inter-State Comparison

Over the years, the southern region has had the highest level of CDR among the different regions in India. Data shows that the CDR in Kerala was 42.3 per cent in 2001 as against 90.6 per cent in Tamil Nadu, 64.9 per cent in Andhra Pradesh, and 61.8 per cent in Karnataka. The average CDR in Kerala during the last seven years from 1995–2001 was 44 per cent as against 89.6 per cent in Tamil Nadu, 71.6 per cent in Andhra Pradesh, and 67.6 per cent in Karnataka (Table 13.6).

Table 13.6
Credit–Deposit Ratios of Commercial Banks in
Southern States (percentage)

<i>Region/States</i>	<i>As per utilisation</i>							<i>Average</i>
	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>1995 to 2001</i>
All-India	55.6	57.3	56.8	55.3	54.8	56.0	56.7	56.1
Southern Region	69.9	76.1	75.3	72.0	68.7	66.8	66.8	70.8
Andhra Pradesh	74.6	77.6	77.4	72.4	69.1	65.5	64.9	71.6
Karnataka	65.1	71.5	72.2	70.3	66.7	65.5	61.8	67.6
Tamil Nadu	68.8	100.3	97.3	92.6	90.3	87.5	90.6	89.6
Kerala	45.2	46.9	45.7	44.7	41.8	41.7	42.3	44.0

Source: Report on Trend and Progress of Banking in India, various issues, RBI.

The investments made by the banks could compensate for the low level of advances but the evidence shows that the banks in Kerala have not been investing large funds in government securities, bonds, equities, etc., either. The Credit– and Investment–Deposit Ratio (CIDR)³ in the state was lower at 50.8 per cent in 2001 as against 64.3 per cent at the all-India level and 75.3 per cent for the southern Region as a whole. In Tamil Nadu, the average CIDR during 1995–2001 was close to 100 per cent. However, the CIDR in Kerala (50.8 per cent) was even lower than the CIDR at the all-India level (56.7 per cent) clearly showing that the banks' investment has not compensated for the lower level of advances and investments in the state (Table 13.7). From the above facts, it may not be inappropriate to infer that deposits mobilised from Kerala are not fully ploughed back into the economy in the form of advances and investment. Deposits mobilised from Kerala form part of the resources of the banks for making advances in neighbouring states.

Table 13.7
Credit- and Investment-Deposit Ratios of Commercial Banks
in Southern States (percentage)

<i>Region/States</i>	<i>As per utilisation</i>							<i>Average</i>
	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>1995 to 2001</i>
All-India	65.3	69.0	65.4	63.6	62.5	63.6	64.3	64.8
Southern Region	80.9	85.1	84.9	81.3	77.8	75.5	75.3	80.0
Andhra Pradesh	88.4	94.9	90.0	84.7	82.5	78.4	77.6	85.2
Karnataka	74.1	79.1	79.5	77.4	73.8	72.1	68.5	74.9
Tamil Nadu	97.2	104.2	106.3	100.7	97.7	94.5	97.5	99.7
Kerala	56.4	55.3	56.0	55.2	50.8	50.4	50.8	53.6

Source: Report on Trend and Progress of Banking in India, various issues, RBI.

Bank-Group-wise Analysis

There was considerable inter-bank-group variation in the CDRs in the state. While the State Bank group and Regional Rural Banks (RRBs) had better CDRs, the nationalised banks, private sector banks, and foreign banks, with a combined share of 65 per cent of total bank branches and an equal percentage share in deposits, had lower CDR than the state average. Among the different groups of banks, what is intriguing is the performance of nationalised banks with 1,051 branches and a deposit share of 32.7 per cent. The CDR of nationalised banks was 3.3 percentage points lower than the state average. Nationalised banks did not compensate for their low level of deployment of credit by making investments. Their CIDR was relatively lower at 46.7 per cent, 2.2 per cent below the state average. Similarly, private sector banks are lagging behind in both credit disbursement and investment as reflected in their lower CDR and CIDR (41.6 per cent and 44.4 per cent, respectively, in June 2002) (Table 13.8).

Inter-District Variation

A district-wise analysis shows that the CDR has been higher than the state average in seven districts out of the 14 in the state. The highest ratio was in the district of Wayanad, where it stood at 160.3 per cent in March 2001. However, the high ratio was mainly on account of the very low level of deposit in that district. Among the seven districts, which recorded lower CDR than the state average, the ratio was the lowest at 13.6 per cent (high deposits with low credit) in Pathanamthitta, a district with large number of non-resident Indians. Among all the districts, the performance

Table 13.8
Bank-Group-wise Credit-Deposit Ratio in Kerala, June 2002

<i>Number of Banks</i>	<i>Number of Branches</i>	<i>Share of Deposits</i>	<i>Share of Advances</i>	<i>CDR (percentage)</i>	<i>CDR (percentage)</i>
State Bank Group	6	32.9	32.9	43.9	51.9
Nationalised Banks	19	32.7	38.1	39.4	46.7
Private Banks	21	31.7	30.8	41.6	44.4
Foreign Banks	3	0.7	0.4	21.4	27.3
Regional Rural Banks	2	348	4.8	102.9	114.5
Total	51	3,320	100	42.7	48.9

Source: SLBC, Canara Bank, Thiruvananthapuram.

Notes: CDR—Credit-Deposit Ratio; CDR—Credit- and Investment-Deposit Ratio.

of Ernakulam was better with high level of deposits and also high level of advances. However, in Ernakulam also, the CDR has been on the decline from 74.6 per cent in 1997 to 66.8 per cent in 2001 (Table 13.9).

Table 13.9
District-wise Credit-Deposit Ratios of Commercial Banks in Kerala,
End-March (percentage)

<i>District</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>
Wayanad	106.9	121.1	118.2	132.8	160.3
Idukki	95.9	82.5	76.9	85.8	83.1
Ernakulam	74.6	67.1	64.5	66.7	66.8
Kozhikode	62.8	61.8	59.4	57.4	59.2
Kollam	61.4	56.0	52.4	51.5	50.0
Kasaragod	48.1	52.0	49.6	50.1	50.3
Palakkad	47.2	50.4	49.3	47.9	44.8
Kottayam	44.2	43.7	37.5	37.9	38.7
Thiruvananthapuram	33.0	34.6	35.5	36.7	42.5
Malappuram	46.3	43.8	38.6	36.6	35.0
Kannur	38.6	38.2	37.8	36.1	36.4
Alappuzha	37.2	37.7	32.7	32.1	31.7
Thrissur	32.2	31.8	28.9	27.4	34.8
Pathanamthitta	13.9	14.4	13.8	13.3	13.6
Kerala-Total [#]	45.4	44.2	41.7	41.5	43.3

Source: Derived from data reported in *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues, RBI.

Note: [#]CDR reported here is not strictly comparable with SLBC data.

ASSESSMENT OF LEVEL OF BANK CREDIT IN KERALA

Since the concept of CDR has some limitations as mentioned in the introduction, in this section we assess the level of deployment of bank credit based on some other parameters, such as (a) credit as percentage of the NSDP, (b) credit per account (CPA), (c) per capita credit (PCC), and (d) achievement of priority sector targets. The section also discusses the credit disbursement by AIFIs.

Credits and State Income

As the growth of the economy is one of the major objectives of credit deployment, the level of deployment of bank credit can be better assessed in comparison with the growth of the economy—state income. The level of advances as a percentage of Kerala's NSDP can provide an indication of the extent of credit support provided for the growth of the economy.

Data provided in Table 13.10 shows that advances as a percentage of the NSDP, at current prices, ranged from around 25 to 40 per cent during the study period. A comparison reveals that bank advances in Kerala as a percentage of the NSDP were higher than the same at the all-India level. During the entire study period, the average proportion was higher at 32.2 per cent in Kerala as against 26.0 per cent at the all-India level. However, the problem is the decline in the proportion during the 1990s in Kerala (from an average of 37.7 per cent during 1985–90 to 27.9 per cent during 1996–2002), when it was rising in at the all-India level (25.2 per cent to 27.6 per cent over the same time frame). The proportion of advances to the NSDP at 31.7 per cent in 2002 was significantly lower than the same during the second half of the 1980s. Both the CDR and advances as percentages of the NSDP follow almost the same trend as evident from Figure 13.4. The proportion of bank credit to state income in neighbouring states like Tamil Nadu and Karnataka was higher than in Kerala. During 1997–2000, the average proportion in Tamil Nadu was 40.8 per cent and 32.9 per cent in Karnataka as against 27 per cent in Kerala.

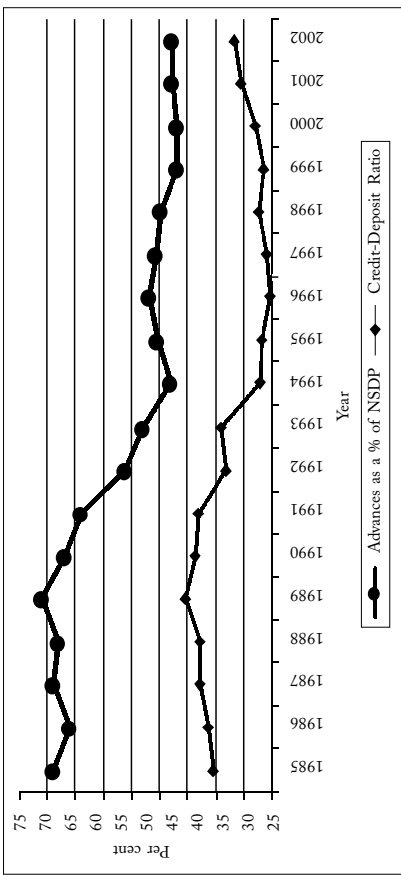
Table 13.10
Advances as Percentage of Net State Domestic Product

<i>Year</i>	<i>Advances in Kerala as percentage of NSDP*</i>	<i>Advances in India as percentage of NDP**</i>
1985	35.5	24.4
1990	38.6	25.9
1995	26.9	25.8
1996	25.4	26.6
1997	25.8	25.1
1998	27.3	26.2
1999	26.6	25.4
2000	28.0	27.7
2001	30.4	30.1
2002	31.7	31.8
Average		
1985–90	37.7	25.2
1991–95	31.8	24.8
1996–02	27.9	27.6
1985–02	32.2	26.0

Sources: SLBC, Canara Bank, Thiruvananthapuram; *Economic Review*, various issues, State Planning Board, Thiruvananthapuram.

Notes: *Net State Domestic Product, **Net Domestic Product.

Figure 13.4 Advances in Percentage of Net State Domestic Product and Credit-Deposit Ratio



Credit Per Account and Per Capita Credit

Another indicator of low level of credit deployment in Kerala is the estimate of CPA. In Kerala, the amount of outstanding CPA at Rs 51,638 in 2001 was the lowest among the major southern states and the all-India average (Table 13.11). In the case of Tamil Nadu, the CPA at Rs 1,08,237 in 2001 was almost double that of the CPA in Kerala. A reflection of lower level of credit deployment in the state can also be found in the estimate of PCC. The PCC in Kerala was lower than Tamil Nadu, Karnataka, and all southern states taken together.

Table 13.11
Credit Per Account (CPA) and Per Capita Credit (PCC)
in Southern States (rupees)

States	1998		1999		2000		2001	
	CPA	PCC	CPA	PCC	CPA	PCC	CPC	PCC
All-India	61,575	3,403	73,114	3,969	84,620	4,705	1,02,824	5,496
Southern States	47,093	4,343	53,744	4,871	59,499	5,551	73,417	6,440
Andhra Pradesh	36,329	3,092	40,693	3,485	45,157	3,916	55,917	4,507
Karnataka	52,074	4,286	57,853	4,745	57,146	5,365	75,204	6,257
Tamil Nadu	63,644	6,215	74,150	7,005	87,511	7,969	1,08,237	9,240
Kerala	33,594	3,802	39,996	4,270	45,690	5,104	51,638	5,987

Sources: Derived from data reported in *Statistical Tables Relating to Banks in India* and *Basic Statistical Returns of Commercial Banks in India*, various issues, RBI.

Number of Credit Accounts

Here, it will be interesting to find that number of credit accounts per 1,000 population in Kerala was higher than in other southern states. As per Table 13.12, the number of credit accounts per 1,000 population in Kerala was around 116 in 2001 as against around 85 in other southern states. From the above facts, it can be inferred that banks are extending credit to relatively more number of people in Kerala, but the amount of credit provided per account was low. The small size of most landholdings, the low number of medium- and large-scale industries, the absence of bigger service providers, etc., can be the reasons for the lower amount of credit disbursed per account.

Table 13.12
Number of Accounts Per Thousand of the Population in the
Southern States: Scheduled Commercial Banks (number)

<i>States</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>
Andhra Pradesh	84.97	85.90	87.38	82.96
Karnataka	82.61	84.18	97.69	84.14
Tamil Nadu	95.81	91.61	90.42	84.97
Kerala	114.81	108.12	110.00	116.22

Source: Derived from data reported in *Basic Statistical Returns of Commercial Banks in India*, various issues, RBI.

Achievement of Priority Sector Advances and Credit–Deposit Ratio

When the issue of CDR is discussed, banks often find solace in the achievement of priority sector targets in the state. Hence, it is worthwhile to examine whether the achievement of priority sector targets provides any comfort for the state. In Kerala, priority sector advances were consistently higher than the stipulated target of 40 per cent. Since total bank credit in the state was lower, it was relatively easier for banks to achieve the priority sector target (as it is a proportion of total bank credit). Hence, achievement of priority sector target cannot be taken as an indicator of higher level of deployment of credit. In case of Tamil Nadu, credit under priority sector was way below the target (33.6 per cent in 2000). However, Tamil Nadu was able to achieve very high level of CDR because banks could provide higher amounts of loan for non-priority areas, mainly industries (Table 13.13). From these facts, it can be inferred that for improving credit flow in Kerala, it is essential to concentrate on non-priority areas (industry, export, services sector, etc).

Table 13.13
Priority Sector Advances as a Percentage of Total Credit
of Scheduled Commercial Banks

<i>States</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>
Andhra Pradesh	39.0	42.1	40.0	42.5
Karnataka	38.4	38.9	42.5	39.1
Tamil Nadu	35.1	34.5	32.7	33.6
Kerala	45.4	43.5	42.4	42.2

Source: Derived from data reported in *Statistical Tables Relating to Banks in India*, various issues, RBI.

REASONS FOR LOW CREDIT AND SOME SUGGESTIONS

The low level of credit deployment in the state can be attributed to the following factors.⁴

1. **Lack of a Development Strategy:** Over the years, the state has been more preoccupied with welfare-oriented programmes and there has been no concrete strategy for the growth of the economy by identifying the areas in which the state has comparative advantage over other states and regions in the country.
2. **Low Credit Absorption Capacity due to Weak Productive Sectors:** Because of low absorption capacity, the banks are not able to expand credit in the state. It is often said that the credit absorption capacity of the productive sectors is limited. Here, it is important to note that absorption capacity is limited due to the inadequate development of the productive sectors and not because the sectors have already reached high levels of development. This is evident from the very low shares of the agriculture and industry sectors in total advances of commercial banks in the state.
3. **Investment Climate:** Policies and programmes to proactively encourage the investment of private capital have been absent.
4. **Labour Problems:** The perceived militancy of Kerala's labour force has discouraged private investment to some extent.
5. **Weak Infrastructure:** The condition of infrastructure in the state is very poor with bad roads, severe power shortages and insufficient transport and communication facilities.
6. **Lack of Professional Skills and Risk Aversion Attitude of the People:** Keralites are skilled people but they are not often rated as good professionals when it comes to management. Further, in general, they tend to avoid taking risks involved in starting new ventures and, hence, prefer to be employed by others.
7. **Limited Geographical Area Available for Large-Scale Industries:** Due to the high density of population and diversion of available land for construction of houses, there is hardly any area available for setting up large-scale industries. In fact, since 1975, no large-scale industry has come into existence in the state.
8. **Continuance of Colonial Export Patterns:** The state is exporting cash crops like spices, rubber, marine products, tea, coffee, etc., without much processing. Even now a major share of these commodities is exported in raw form, thereby limiting the scope for value addition, creation of employment and therefore credit deployment.

9. **Reluctance of Banks to Extend Credit:** There is an impression that with the introduction of prudential norms and Non-Performing Assets (NPA) classification, banks are taking too many precautions while sanctioning loans. At times, this leads to rejection of loan applications even for genuine credit requirements of viable projects.

Some Suggestions

The expansion of credit is intrinsically linked with the economic activities in the state. Hence, to start with, it is essential to have a clear vision of the economic development that the state wants to achieve. Along with the vision, the state needs to evolve specific strategies based on its given resource base. Due to limited geographical area and high density of population with highly fragmented land space, the scope for large-scale cultivation and setting up of big industries is very limited in the state. However, unlike many other states in the country, Kerala has two specific advantages, namely, (a) highly educated and skilled manpower and (b) beautiful landscape throughout the length and breadth of the state. Hence, the state has to choose a development path, which can harness and utilise the skilled manpower in knowledge-intensive industries. Unfortunately, there are not many highly reputed training and research centres in science, technology and management in the state. If private sector were encouraged to get involved in developing infrastructure for professional education, banks can expand their advances in such areas. Further, the state has to encourage knowledge-intensive, high-technology industries. The situation calls for encouragement of industries belonging to information technology (IT), software development, biotechnology, etc., so that the skilled manpower can be effectively used. Banks can play an increasing role in financing such activities. Similarly, the tourism sector needs considerable amount of investment for developing world-class tourist cites and also for provision of better infrastructure. Given the limited resources of the public sector, the private sector has to be encouraged in these sectors, which in turn will provide opportunities for banks for expanding their lending within the state. In these emerging areas, either there are no clear guidelines for banks for financing or they have not entered the field on their own initiative.

The decentralisation of planning—the new development strategy evolved in the state—has so far failed to bring in bank credit as a fund resource. To improve the level of disbursement of bank credit in the state, it is necessary to integrate the credit plans of the banks with the plans

of local bodies. Since the financial position of most local bodies is weak and they are making investments in projects that may not provide sufficient monetary returns in the future, it is not feasible for banks to directly finance projects undertaken by the local bodies. Besides, there are institutional and legal problems in banks directly financing plans of local bodies. However, it is possible to think in terms of issuing bonds by financially sound local bodies (example, municipal bonds), with guarantee of the state government, which can be subscribed by the banks. To ensure timely repayment of the money borrowed, the local bodies issuing such bonds, can create an escrow account out of the revenues from the specified projects financed through bank credit.

The role of the services sector has been continuously on the rise in the state economy and it now contributes more than half the state's income. However, the share of advances to this sector is not rising in tune with the growth of the sector. It is quite possible that some of the activities may not have been undertaken for want of finance. Banks need to explore the possibilities for financing viable projects in the services sectors like hospitals, transport services, retail networks and other professional services. In the overall interests of the state and also of the banks, the banks need to be more pragmatic and make loan assessments more realistically by considering regional aspects so that genuine credit requirements of the public can be fulfilled.

The fact that private financiers (moneylenders, known as 'blade companies' in Kerala) are thriving in the state⁵ is an indication that the formal banking system is not able to meet the credit requirements of a section of society that needs credit for retail trade, personal consumption, medical expenditure, social functions, etc. The formal banking system should strive to garner the business done by private financiers. This needs further penetration of banks in rural and semi-urban areas with suitable schemes. Given the profile of customers (not having assets or collateral) and their credit requirements, the best-suited arrangement to link them to the banking system would be promotion of self-help groups (SHGs) throughout the state.

SUMMARY AND CONCLUDING OBSERVATIONS

This essay has reviewed the progress of commercial banking in Kerala, analysed the trends in CDR, assessed the level of credit deployment, examined the reasons for low credit deployment and offered some suggestions for improving the situation. The paper finds that, in absolute

terms, the level of credit in Kerala (compared with state income) and its rate of growth (compared with all-India) have been reasonably good. However, in relative terms (compared with deposits, PCC and CPA), the level of credit has been lower, especially because advances as a proportion of the NSDP, though higher than the national average, have declined significantly during the 1990s. Unlike in the later part of the 1980s, the growth of advances during the 1990s has not been in tune with the faster growth of state income. Thus, it appears that credit continues to grow at a trend rate, without being too responsive to the requirements of credit with the faster growth of state income and hence, the dependence on private financiers continues.

Other major observations of this essay are the following.

1. Commercial banks in Kerala seemed to give more thrust to deposit mobilisation than credit expansion.
2. Since 1991, there has been drastic decline in CDR in the state.
3. The CIDR was also lower in Kerala and it was even lower than the CIDR at the national level.
4. Among the southern states, Kerala had the lowest CDR and CIDR.
5. The performance of some nationalised banks was poor; their combined CDR was 3.3 percentage points lower than the state average.
6. While the number of accounts per 1,000 population was relatively high in Kerala, both PCC and CPA were lower.

The reasons for low CDR are, ostensibly, lack of credit absorption capacity in the weak productive sectors and unwillingness of banks to evolve suitable policies and tailor-made credit products to expand credit to the rising services sector and wean away borrowers dependent on private financiers. The challenge for banks now lies in breaking the trend rate of growth of advances and enhancing the flow of credit in tune with increased deposit mobilisation and improvement in economic activity in the state. As banks are already achieving the priority sector target in the state, it is essential to concentrate on the industry, exports and services sectors for expansion of credit. There seems to be enough scope for expansion of credit by banks in the state through SHGs. The economic liberalisation and reform measures initiated by the state and the successful conduct of the Global Investors Meet will provide more opportunities for banks to expand credit, especially in sectors like IT, software development, IT-enabled services, biotechnology, healthcare services and tourism.

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1. The first organised commercial bank in Kerala—The Travancore Bank—was started in 1893. When the RBI was established in 1935, two Travancore banks—Travancore National Bank and Quilon Bank—were classified as scheduled banks. At the time of Independence, there were about 190 banks in Travancore and Cochin, most of them unit banks. The Travancore National and Quilon Bank (TNQB), formed in 1937 by amalgamating the two banks mentioned above—was a major bank in the state as well as in India as it ranked first in terms of number of branch offices and third in total volume of business. However, the TNQB was liquidated in 1938 (Oommen, 1993).
 2. The CDR is a simple and a useful concept to measure the extent of deployment of credit relative to the deposits raised by the banks from a particular region. However, the CDR may not adequately capture the intensity of credit dispensation as the ratio is influenced by either the level of credit or the level of deposits. For example, high level of deposits underestimates the CDR, even if there is no decrease in credit deployment. On the other hand, low deposit level overestimates the ratio even with the same level of credit. In the context of Kerala, huge inflow of NRD, without any corresponding economic activity undertaken in the state, underestimates CDR. Hence, there have been suggestions to exclude NRD deposits from total deposits to arrive at the CDR more realistically. However, the exclusion of NRD deposits may not be appropriate as it defeats the very purpose of assessment of credit deployment out of deposits available in a geographical area. Further, if NRD deposits are to be excluded, then the credit availed of by non-residents from the banks also needs to be excluded to get a realistic picture.
 3. By its very definition, the CDR may not provide a complete picture of the extent of resources deployed by the banks in a particular geographical area as it captures only the traditional advances extended and it does not take into account investments made by the banks in government securities, bonds floated by state-level corporations, equities of corporates, etc. To capture this, the CIDR is estimated taking into account advances and also banks' investments. This ratio basically internalises the Statutory Liquidity Ratio (SLR) requirements of banks. Apart from advances and investment in approved securities, banks also deploy resources in marketable instruments like debt securities, bonds issued by local bodies and corporations, equities, etc., though not all are officially approved for SLR requirements. Hence, to get a complete picture, investment made in marketable instruments also needs to be considered. However, due to lack of reliable data and problems associated with its calculation, these investments are not captured either in the CDR or in the CIDR. Due to the above limitations of the CDR and the

CIDR, we have also used other parameters like advances as percentage of NSDP, CPA, PCC, credit accounts per 1,000 population, achievement of priority sector targets, etc., to assess the level of credit deployment.

4. In the context of the declining CDR in the state, the RBI constituted a Task Force (TF) on CDR in Kerala in 1993 to examine the issue and offer suggestions for its improvement. The Chairman of the TF was Mr D.D. Avari. The report of the TF, titled *Report of the Committee on Credit-Deposit Ratio in Kerala*, was submitted in 1994. The TF noted that the banking system in Kerala was not able to cater to the developmental needs of the commodity producing sectors due to some important institutional and organisational constraints, which are peculiar to Kerala. Low credit absorption capacity of Kerala's industrial economy was cited as the significant factor responsible for falling CDR. Poor industrial infrastructure, inadequate power, and labour unrest have contributed to low industrial investment in Kerala. The TF suggested a number of measures to improve the CDR to 60 per cent by 2000-01. After the submission of the Report, a Monitoring Committee was formed to implement various suggestions. During the initial years, banks have taken some measures for improving the credit flow, especially to the small-scale sector, but there has been no serious follow up to the recommendations. Hence, there was no noticeable impact on the ratio. Major recommendations of the TF included the following: (a) treating small agricultural advances given against small size of operational landholdings as business propositions by banks; (b) better cooperation between various government department and banks; (c) formulating a composite loan policy for financing homestead farming; (d) creating a conducive industrial climate for rapid industrial growth (by the government); (e) provision of larger advances for agricultural marketing, food processing, tourism, housing, education and infrastructure facilities (by banks); and (f) evolution of schemes for tying up NRD with productive ventures (by the government).
5. There is no precise estimate of the number of private financiers in the state. Experts suggest that their number would be around 12,000 and their outstanding credit is estimated at around Rs 6,000 crore, which will form 18.5 per cent of total credit of all FIs (banks, cooperatives, NBFCs, and private financiers) in the state.

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VI

HEALTH

AN OVERVIEW OF THE HEALTH
SCENARIO OF KERALA
A.V. George and Sindhu S. Nair

14

INTRODUCTION

Throughout most of the 20th century, the health conditions in Kerala were better than in other states of India. However, after the amalgamation of the socially advanced Travancore-Cochin with the more backward Malabar in 1957, Kerala experienced a health take-off. Today, the state is noted for its high physical quality of life index (PQLI), which far exceeds the national average. The good health status attained by Kerala has been acclaimed as 'good health at low cost'. This stage is reached even while experiencing low standards of per capita income and low agricultural/industrial production. Kerala is noted for the better outcome through higher social and human development indicators. The better outcome is also attributed to a growth pattern, largely based on distributive justice, which was the result of popular progressive social movements and contributions of missionaries and rulers of both Travancore and Cochin. Kerala has demonstrated that social development does not require high income or economic growth—explained by the much-highlighted Kerala model. Good health depends on a combination of political, social, educational and health advancement. A study carried out by the Centre for Development Studies (CDS), Thiruvananthapuram, attributes the high level of health status of Kerala to the spread and accessibility of medical care in the state. Another study by the Sasthra Sahitya Parishad links this high status with socio-economic and environmental variables (Kannan et al., 1991). Kerala's infant mortality rate (IMR) of 13 per 1,000 live births, life expectancy of over 71 years (69 for males and 74 for females), and a total fertility rate (TFR) of 1.7 are some of the indicators far superior to the Indian national averages and close to those of developed countries. This has been achieved against a low state domestic product (SDP) of US\$ 275 per capita per year in Kerala against a national average of US\$ 350 and US\$ 23,090 for the developed countries. Further,

Kerala ranks highest among the Indian states in the Human Development Index.

Healthcare coverage in Kerala is nearly universal. In the healthcare system, the state has been able to attain the accessibility of healthcare not only in terms of geographical or physical barriers but social and economic access also. Kerala ranks ninth with respect to per capita net domestic product (Rs 4,618 as per 1991–92 current prices) among major states. It is the lowest compared to other southern states such as Tamil Nadu (Rs 5,078), Andhra Pradesh (Rs 5,528) and Karnataka (Rs 5,555). According to the latest estimates available for 1987–88, 32.08 per cent of the population in Kerala lives below the poverty line, which is a higher figure than Punjab (12.70 per cent), Haryana (16.63 per cent), and Andhra Pradesh (27.20 per cent). The percentage of population living below the poverty line was 59.71 in 1973–74 and declined to 32.08 by 1987–88. Kerala's unemployment rate is also the highest compared to major states in India. According to estimates given by the National Sample Survey Organisation (NSSO), the unemployment rate was 17.62 per cent (current weekly status), which was significantly higher than Tamil Nadu (7.61 per cent), a state that has second highest unemployment rate in India. The urban population was also lowest in Kerala among southern states constituting 26.4 per cent of the population living in an urban area, which is lower than Tamil Nadu (34.2 per cent), Karnataka (30.9 per cent), and Andhra Pradesh (26.9 per cent).

The western style of preventive and curative medicine took deep roots in Kerala as a result of the demonstration effect caused by its acceptance by the royal families. The foundation of health facilities, laid down even before the formation of Kerala state, expanded prodigiously during the decades from 1961 to 1991. The fiscal deficit of the 1980s led to a fall in the supplies in the middle-level hospitals, which were most accessible to the common people. The resource crunch also led to a fall in the quality of medical care in government hospitals. The increased demand for healthcare was due to several factors in the social milieu of the state, such as higher levels of female education, changing epidemiological patterns, and the settlement pattern that resulted in easy accessibility to medical institutions. Sensitisation to modern modalities of healthcare was another factor. This increased demand requires the government to gear up its health infrastructure to meet the primary healthcare needs of the people. Toning up of the existing need and making available equitable, efficient and good quality healthcare needs concerted action. To meet the expenses, the Resource Commission of the state has recommended levying user

charges for outpatient services and differential charges based on patients' incomes. However, these methods are met with public opposition, as they bring in an element of inequity. After introducing decentralisation of administration in the health sector, community financing and cost containment can be looked upon as options for bettering the performance of the health sector.

A major difference between the health status of Kerala and other western countries is the morbidity rate, which according to Panicker and Soman (1984), seems to be higher than even the rest of India. This may be due to increased health awareness resulting from higher education. However, the low mortality rate which is seen alongside is due to the ready access to and utilisation of medical facilities. However, these studies also show that a good degree of the ill-health is due to poor nutrition. The modern history of Kerala deserves to be recognised as a saga of collective interventions by the people to shape their common destiny by challenging well-entrenched customs and traditions of an earlier era, defying the logic of the market, and even struggling to change state policy. Thus, Kerala's people have taken part in movements to establish their role in decision making by empowering themselves.

All the factors mentioned above have brought about a sea change in the pattern of administration and policies in Kerala. This essay proposes to provide an insight into the health scenario of Kerala and its related economic aspects. The essay begins with a look into the 'Kerala model' of development, which the state is said to have experienced. Then from the economic outlook, the 'health' sector is visited with an overview of the state health policy, 2000. Finally, an analysis of the health policy with references from the state budgetary allocations is presented.

KERALA MODEL

Overexploitation of natural resources, without consideration for the side effects, places immense pressure on the ecology and society. The mad race for resources has ultimately divided the humanity into two distinct groups of the 'haves' and the 'have nots' and has taken the world on to the path of a divergent chain reaction, which will explode sooner or later. Against this global context, Kerala—a poor state in the southernmost tip of India—has developed its own way of development, that has come to be named the 'Kerala model'. Despite its pathetic situation on the economic front, Kerala has achieved a high level of human development. It has proved the principle that more than the quantity of a country's income,

it is the distribution and wise utilisation of this amount that leads to a higher quality of life. Moreover, this has been done without much expenditure of natural resources.

A glimpse into the historical background of Kerala reveals that it was formed by the merger of the two princely states of Cochin and Travancore, and the Malabar district of the Madras Presidency of British India. The state has to its credit the earliest acceptance of the British style of administration and encouragement given to European missionary activities and the initiation of economic enterprises and even subsidiary commercial and capitalist developments. In response to these changes, what came to be referred as 'public politics' (Jeffrey, 1993) and 'public action' (Drèze and Sen, 1989) struck root in Kerala. If growing education and social consciousness among the previously disadvantaged challenged the old order, the new resources of the growing commercial capitalist economy and expanding educational opportunities demanded changes in the caste-based ascribed status system of Kerala. The public politics pointed out by Jeffrey (1993) was evolved as a result of social forces and the thorough penetration of capitalist and commercial relations into society (Tharamangalam, 1984). According to Jeffrey (1993), disintegration of the matrilineal system of society brought about this social collapse, which was more complete than anywhere else in India. On the other hand, the demands made by public politics led to the evolution of one of the most extensive 'welfare states' by the Third World standards. The influence of the socialist and communist ideologies of desirable state intervention has also led to the emergence of this important dimension of the Kerala model.

The Kerala model—as it is called—seems to incorporate a set of high material quality of life indicators, a set of wealth and resource redistribution programmes, and high levels of political participation and criticism among ordinary people along with a substantial number of dedicated leaders at all levels. The major areas where the model received acclaim include literacy, education and health. Looking into the arena of literacy, we can see that from a position of 19.15 per cent and 3.15 per cent literacy for men and women, respectively, in 1901, Kerala rose to a position of 93.62 per cent and 86.17 per cent, correspondingly, by 1991. The state has made impressive advancements in the field of education also. In the absence of useful occupations, students who successfully complete one stage of education appear to go to the next higher stage. 'Thus no stage is terminal except for those who dropout of the system on account of failure' (Kerala Education Commission, 1997). With regard to the health sector, the life expectancy at birth is very high in Kerala—73 years for males and

79 years for females, as against the Indian average of 61 years in 1996. In the case of IMR, it is only 13 per 1,000 in Kerala as compared to the national figure of 80 per 1,000 in the 1990s. The birth rate in Kerala is also low—only 17 per 1,000—whereas for the entire country it is 29 per 1,000. To sum up the health sector, however, we can say that the health status of Kerala has emerged as one with a low mortality, high morbidity syndrome. 'As for the morbidity pattern, diseases of poverty are seen to co-exist with the so-called diseases of affluence' (Panicker and Soman, 1984).

Kerala has been reported to have the highest rates of morbidity among all Indian states (Sen, 1997). Morbidity rates in the state have been reported to be very high by other studies conducted in Kerala state as well (Panicker and Soman, 1984; Sen, 1997). Panicker and Soman (1984) argue that Kerala indeed has a higher morbidity rate than other Indian states, while Murray and Chen, and Sen argue that because of the high educational level in Kerala, the reported illness is higher. Sen states that Kerala has an enormously higher literacy than elsewhere in India and also the most extensive public health facilities in the country. Murray and Chen say that the USA has even more reported morbidity than Kerala. Kannan, et al. (1991) have reported morbidity by socio-economic status in Kerala and argued that Kerala's high morbidity is real. They give two reasons. One is that a large share of morbidity is due to infections, which are real and cannot be attributed to the perception factor alone. Another point is that poor people reported more illnesses than rich people, which also goes against the argument that the perception factor is the major contributor of high reported morbidity in the state. There is a need to understand morbidity in Kerala in more detail. This is one area, which needs further study.

There are two factors worth mentioning in the Kerala context. One is that Kerala is not an independent nation, but only a federal constituent of the Indian union, constantly drawing advantage from this relationship. For example, the Indian union accepted the responsibility of providing food grains to Keralites at concessional prices. This assured supply has provided material basis for Kerala's experiment in human development. The second thing to note is the occurrence of heavy foreign remittances into Kerala. Migration was the result of the crisis and face-changing activities that the traditional industries of Kerala experienced. Foreign remittances constituted about 20 per cent of the SDP in the early 1970s and had risen to 30 per cent by the 1980s. This has led to higher levels of consumption than was warranted by the low SDP. These factors have shaped the Kerala economy into a commercial-cum-service economy.

To conclude, the expression 'Kerala model' was first associated with the study 'Poverty, unemployment and development policy with reference to Kerala', conducted by the CDS. The study showed how the implementation of social programmes, like public distribution of food grains and public support for education and healthcare, made significant contributions to raising the welfare of the community and reducing social inequalities. 'The history of social development since the formation of Kerala state is really a story of how the differentials were eliminated or narrowed and what policies and programmes were adopted for the purpose' (Krishnan, 1995). Based on this study by the CDS, international scholars formulated the Kerala model of development. However, despite the heavy applause received, Kerala too has promises to keep and miles to go.

Now the major question is about the sustainability of the model—how far would the state be able to provide such welfare or social security measures, given the resource crunch of the government, the skyrocketing unemployment, the externally imposed policy changes, and so forth. Amartya Sen says that it is not a 'model', rather an 'experience'.

Carrying on from the Kerala model, we can see that health sector and its indicators have been major contributions to the process of development. So, we present here an overview of the health policy of Kerala and an analysis of the budgetary allocation towards the health sector.

AN OVERVIEW OF THE HEALTH POLICY OF THE GOVERNMENT OF KERALA

*'To achieve as much as Kerala has done for a population of its size is
no mean record in world history.'*

Amartya Sen

This comment by Amartya Sen on Kerala reflects the admirable level of health status achieved by it despite its low economic development. The initiatives and programmes in the health sector that helped achieve this state of affairs has now to face new challenges brought about by the health transition. The need for a new policy statement on health is pertinent for Kerala because of its specific health status. As a result, the Government of Kerala has drawn up a new health policy aiming at increased quality of life of all the sections of the population. The resulting health policy aims at bringing about equity and cost-effectiveness, giving more importance to the former. Priority is to be given to preventive care and elderly rehabilitative sections.

Many factors have contributed to the high demand for healthcare in Kerala. However, the provision of medical facilities has been subject to budgetary constraints due to scarcity of available resources. This has led the government to accept facilities from all sectors involved in improving the health of the population. Effective interventions available in all systems of the medicine are to be incorporated and cost-effective home remedies are to be encouraged. All this will provide the consumer with increased choices of preferred treatment. A comprehensive Management Information System (MIS) shall provide the necessary data to strengthen decision-making.

A recent development in Kerala has been the people's movement to establish their role in decision-making by empowering themselves 'multilevel/people's planning'—which started on 17 August 1996. Correspondingly, in the health sector, people shall be provided technical expertise by the government in identifying and solving their public health problems. The government shall invite partnerships from non-governmental and community-based organisations in matters of public health. Decision-making bodies shall be set up at the institution-level and equipped with powers to plan, develop, and administer these partnership-based projects. Recognising the contributions of these institutions in developing a facilitating environment and providing high-quality services, the government shall not interfere in their management.

As regards the expenditure, decisions shall be taken to favour the groups and regions ignored in the past. Students with poor financial background shall be provided loans for medical education, which otherwise is made responsive to the emerging healthcare needs. Quality control and rational use of drugs shall be encouraged. Gender discrimination in the field of healthcare will be prevented. The government shall also undertake vigilant measures to prevent unethical practices in the health sector. The system of healthcare is to be organised in a three-tier model, where tertiary hospitals function as referral centres. National and international health programmes shall be encouraged. Thus realising the importance of and influence upon the health sector of other factors, the Government of Kerala in its health policy has endeavoured to make health an integral part of the development process.

Though the document is said to be more of a strategic essay than a policy document, it lacks background information. It fails to justify why Kerala should have a separate health policy despite the 'outlier' position it has attained in this field. In an overview of the results, we can see an abundance of technological innovations in the medical field producing a

profound influence on the cost of healthcare. The skyrocketing costs will affect resource allocation. Though the priorities set out by the projects are acceptable, their sustainability is doubtful. Handing over the majority of the power to the local bodies, with the government holding only supervisory status, is the ideal situation for now. However new recruitment policies, healthcare strategies and quality services need special mention. Increased attention must also be given to the areas of mental health, cancer care, sports medicine, adolescent care, evaluation of homoeopathic and other systems of medicine, etc. Collaboration and coordination with other sectors, wherever possible, is to be given importance.

ANALYSIS

All through the history of Kerala's development, we can notice the existence of organised healthcare practices. This might basically be due to the existence of a welfare state and the resulting tradition of government support to healthcare development. Even during the period of princely rulers, steps were taken to make available the western system of healthcare for the subjects. Evidence is provided by the existence of some government hospitals, which are about 150 years old. In the welfare state, the social sector was given priority; health and education accounted for the greatest share of the government's expenditure in this sector. Increased expenditure in the health sector was a reality even during the 1980s when the government was facing a serious financial crunch and was resorting to methods of cutting down government expenditure. The annual growth rate of government healthcare expenditure during the first three decades (after the state formation) was 13.04 per cent, outstripping the growth of GDP (9.81 per cent) and growth of government expenditure (12.45 per cent) during the same period. However, this increased expenditure from the government continued only up to the mid-1980s. The budgetary share of health has been declining, from 6.95 per cent in 1980–81 to 5 per cent in 2000–01.

Examination of the government's health expenditure pattern reveals the impact of the fiscal crisis. Despite the deficit, government expenditure on health was maintained. However, capital spending stagnated by the mid-1980s while revenue spending continued to grow up to the 1990s. This is because revenue spending comprises a salary component, which could not be reduced due to the increased awareness of the organised labour about their political rights. So the cut in the government's share resulted in a cut in the expenditure on supplies and maintenance. The

adjustment policies on health, consequent to the crisis, led to a reallocation in the sector's budget among different categories. The expenditure on 'low priority items' as opined by the top decision-makers was postponed and a deceptive appearance of budget balance was maintained. However, the adverse consequences of this on the vulnerable sections of the population were overlooked. Analysing the growth of the health sector expenditure from the input side, we can arrive at the understanding that real annual percentage growth in terms of salary, operation and maintenance, and capital outlay can be noted as 11.4, 2.4 and 12.5 per cent, respectively. Here too, we can see that the growth rate of revenue expenditure outstrips capital outlay. This reveals that not much R&D occurs to improve facilities; a major chunk of the expenditure is on salaries. Before we proceed with the analysis, Table 14.1 and Figure 14.1 provide glimpses into the budgetary allocation for the past few years.

Table 14.1
Budget Estimates on Medical and Public Health (Rs thousand)

<i>Year</i>	<i>Plan</i>	<i>Non-Plan</i>
1997-98	6,81,200	42,06,861
1998-99	5,96,200	46,98,208
1999-2000	5,13,500	60,24,483
2000-01	4,75,800	56,73,640
2001-02	6,07,401	62,49,909

Source: Budget documents, Government of Kerala.

Table 14.1 shows that the budgetary estimates for Plan (developmental) purposes are decreasing whereas those for non-plan (mainly salary) purposes are skyrocketing. This shows the worsening effects of the financial constraints on the health system. While exercising constraints, the government will impose cuts on those items, which can be postponed. This will definitely point to the developmental expenditure, as cuts in salaries and administrative costs will make the government unpopular! Even in this circumstance, the point to be noted is that Plan expenditure includes mainly the cost of purchasing land, buildings, etc., and not purely machinery or equipment.

Another broad classification to be noted in the budgetary allocation is that between the Plan and non-Plan expenditure on medical and public health along with family planning (Tables 14.2 and 14.3; Figures 14.2 and 14.3).

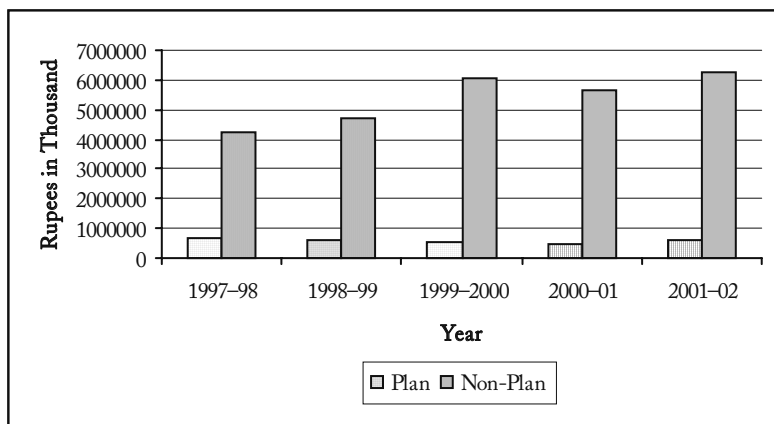
Figure 14.1 Budget Estimates on Medical and Public Health

Table 14.2
Plan and Non-Plan Expenditure on Medical and
Public Health Excluding Family Planning (Rs lakh)

<i>Year</i>	<i>Plan</i>	<i>Non-Plan</i>
1980-81	651.38	4,229.27
1985-86	1,102.50	8,754.37
1990-91	1,529.53	16,587.77
1995-96	5,767.27	29,889.88
1998-99	7,429.16	42,104.52
1999-2000	9,071.83	58,822.13
2000-01	7,189.00	56,736.40

Table 14.3
Expenditure on Family Planning (Rs lakh)

<i>Year</i>	<i>Amount</i>
1980-81	590.20
1985-86	2,510.22
1990-91	4,081.74
1995-96	6,130.67
1998-99	8,083.74
1999-2000	8,480.00
2000-01	5,718.00

Source: Government of Kerala, 2002.

Figure 14.2 Plan and Non-Plan Expenditure on Medical and Public Health Excluding Family Planning

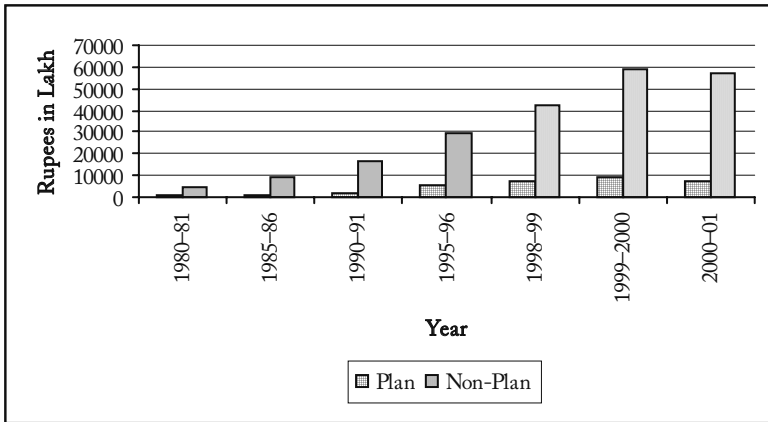
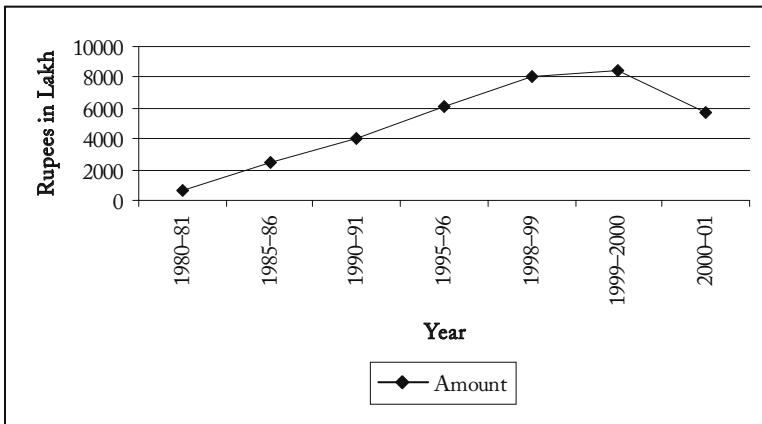


Figure 14.3 Expenditure on Family Planning



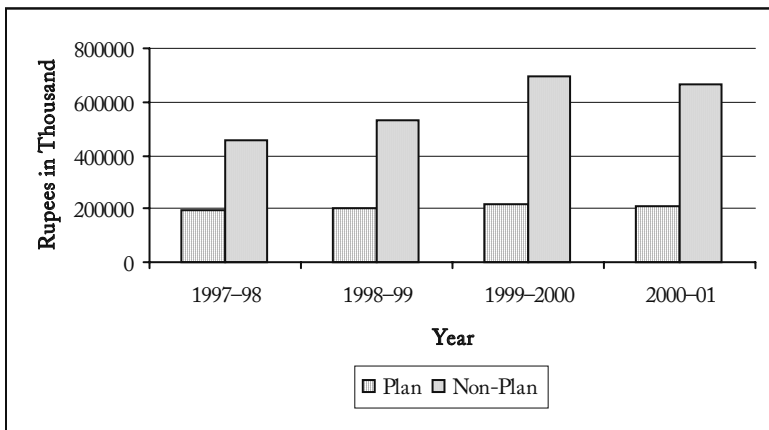
Combining the allocations shown in Tables 14.2 and 14.3, we can see a repeat of the phenomena mentioned earlier. A glaring distinction to be noted in the allocation is that even family planning made unparalleled gains. Expenditure under this head has increased more than nine-fold. The percentage increase is high when compared to that of Plan expenditure. It reflects a distorted priority in healthcare planning and financial allocation. In the health policy documents, topmost priority was given to

medical education and training. Let us take a quick look at the budgetary allocations under this head (Table 14.4 and Figure 14.4).

Table 14.4
Budget Estimate on Medical Education, Training
and Research (Rs thousand)

<i>Year</i>	<i>Plan</i>	<i>Non-Plan</i>
1997-98	1,92,500	4,58,808
1998-99	2,03,700	5,28,635
1999-2000	2,16,100	6,92,168
2000-01	2,10,300	6,62,305

Figure 14.4 Budget Estimate on Medical Education,
Training and Research



We can see that only minor changes occurred in the Plan expenditure whereas relatively higher shifts occurred in the non-Plan expenditure. The policy statement notes that allocations will be made on the basis of consideration showered upon the regions neglected in the past. Medical education in these regions poses several questions if the 'equitable levels of standard' criteria mentioned in the policy is looked upon. The society is to be provided with the necessary technical expertise in identifying and solving its health problems. An added point is that wherever the government finds it difficult to make all these amenities of the medical sector

accessible to people, it can call upon the support of private and non-governmental organisations. Can the private institutions usher in the same quality of service at the minimum cost as provided by the age-old medical colleges run by the government? Will the cost of medical education in the private sector be the same as in the government sector? The practices in other streams of education provide ample proof of the fact that the costs are sure to skyrocket. In that case, does policy reform bring in cost-effectiveness? Will medical education be made accessible to the common man? All these have a common answer—an emphatic ‘No’!

Going on to the services provided by the health sector, we do not have a common pattern of treatment criteria for any disease. The procedures followed in the public and private institutions differ. The long list of diagnostic tests done in private institutions gives patients a long list of bills of sizeable amounts. Even in the case of delivery, the practices and bill amounts differ. It sounds like going to hotels with different services and tariffs. The thing to be noted is that we are talking not about an entertainment or leisure sector but about the ‘top priority’ health sector. In developed countries like the USA, the tests conducted and services provided are the same everywhere. The costs vary only with the length of stay, room rent, etc. If we are trying to attain a ‘developed’ status, then why this difference in such an important sector?

The health policy states that effective interventions available in Indian systems of medicine and homoeopathy are to be incorporated into public health, reproductive and child health, geriatric care, and school health programmes. Also, cost-effective home remedies are to be encouraged.

Table 14.5 shows the high degree of importance attached to the allopathic system as compared to other systems, including Ayurveda and homoeopathy. These neglected systems are said to be less costly when

Table 14.5
Budget Estimates for Allopathy and other Systems of Medicine

Year	<i>Allopathy</i>		<i>Other medical systems</i>	
	<i>Plan</i>	<i>Non-Plan</i>	<i>Plan</i>	<i>Non-Plan</i>
1997–98	1,73,400	29,49,451	26,900	4,11,244
1998–99	1,80,400	32,49,837	39,150	4,76,323
1999–2000	1,63,500	41,13,279	53,400	6,18,102
2000–01	1,35,000	38,49,507	58,000	5,78,762

Source: Budget documents, Government of Kerala.

compared with allopathy; they also have lesser side effects. If so, why should we stick to allopathy? Today, many foreigners are visiting our country to undergo Ayurvedic treatment. In such circumstances, why should we not give the system wider propaganda?

HEALTHCARE CHALLENGES

1. Maintenance or sustenance of the high healthcare indicators.
2. Epidemiological and demographic transitions.
3. Trade-off between efficiency and equity.
4. Stagnant healthcare indicators: has Kerala reached a 'saturation' point in human development?
5. Exploding healthcare costs.
6. Poor quality of services by the government institutions.

To sum up, the overall position of the state budget is characterised by fiscal deficit. Given the political economy of a coalition regime in the state, the possibility of enhancing the state's own financial resources are limited and owing to the financial constraints of the central government, the prospects of receiving greater support from that source are also dim. Health as such is a multidimensional concept, which according to Drèze and Sen (1989), should be viewed from two aspects—(a) health is wealth and (b) health creates wealth. Good health being a function of several factors, health outcomes cannot directly be related to the money spent on the health sector. There is no right answer to the question: 'What is the right proportion of gross domestic product to be spent on health?'

Sound epidemiological knowledge and technical practices have confirmed the feasibility and high cost-efficiency of decentralised, people-based healthcare systems. The modern history of Kerala envisages that people's movements will establish their role in decision-making by empowering themselves. 'An object of fascination for scholars and policy makers concerned with development—Kerala' (Jeffrey, 1993). This quote shows the astonishment of the westerners, who are clearly wonderstruck by the accomplishments of a small and economically backward state in achieving a high physical quality of life through education, public health services and welfare oriented state policies, with the knowledge to identify their priorities and the strengths to channelise resources into that sector, let us have hope and positive faith in the future accomplishments of

popular/people's plan and public action. The good health status attained by Kerala has been acclaimed as good health at low cost. Good health depended on a combination of advances: political; social; educational and health. The foundation of health facilities laid down prior to the formation of the state of Kerala expanded prodigiously during the post formation period of the state. But the fiscal deficit of the 1980s led to a fall in supplies to the middle level hospitals that were more accessible to the people. The resource crunch also led to a fall in the quality of medical care in the government hospitals. Given the political economy of a coalition regime in the state, the possibilities of enhancing the states own financial resources are limited. Hence, the contemporary developments in the health sector like the corporatisation of medical care, unregulated private sector, etc., will result in a shift of health services from low cost to high cost.

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IMPACT OF FISCAL CRISIS ON PUBLIC
HEALTH SERVICES IN KERALA
D. Varatharajan

15

INTRODUCTION

A prime requirement for a state's economic stability is a manageable fiscal deficit of the government and its sustainability. The gross fiscal deficit (GFD) indicates the amount that the state has to borrow each year to support its total expenditure approved in the annual budget. A growing fiscal deficit enlarges the stock of outstanding debt, as it necessitates domestic/international borrowing. Excessive borrowing raises the ratio of interest payments to the revenues and can lead to a crisis. Therefore, high fiscal deficit and heavy borrowing are not desirable.

Many Indian states are now in economic and fiscal crises—overall, a situation similar to the one experienced by the centre over a decade ago. Perhaps, state fiscal crises in the past slowed down the process of achieving the growth targets in the country. This realisation (and the concern regarding the states' fiscal deterioration) has brought the states into focus for the second generation of reforms. The Eleventh Finance Commission has taken up the role of reforming the deteriorating fiscal scenario in various states. For the first time, the Finance Commission has been asked to recommend measures for restructuring the state governments (Rangarajan, 2000). The Tenth Five-Year Plan too, for the first time, fixed separate growth targets for each state (Government of India, 2002).

Public healthcare institutions, on the other hand, increasingly face the problem of resource straits, ever since the New Economic Policy (NEP) came into existence in 1991 (Mahapatra and Berman, 1995; Purohit, 2001; Ramaswamy and Renforth, 1996; World Bank, 1995). The share of the government in healthcare expenditure per se has come down from about 25 per cent in 1991 to 17 per cent in 2001 (Government of India, 2002a). This is happening at a time when the cost of healthcare is increasing at a rate higher than the index of general commodities due to application of more expensive technologies to medical care.

In Kerala, the fiscal situation has been unsatisfactory since the late 1980s and revenue deficit has become a persistent feature since then. It assumed the proportion of a crisis during the mid-1990s when the overall fiscal deficit sharply increased from 3.47 per cent of the gross state domestic product (GSDP) in 1994–95 to 7.26 per cent of the GSDP in 1999–2000 (Government of Kerala, 2001; 2001a; 2002; 2003). Consequently, interest payments rose from 2.57 per cent of the GSDP in 1994–95 to 3.12 per cent in 1999–2000 and to 3.27 per cent in 2001–02. The crisis was serious that the government was unable to clear huge arrears of payments to suppliers of medicines and consumables for hospitals (Government of Kerala, 2001a). Retired government employees were unsure about when they would receive their benefits, including gratuity and pension. The government was unable to disburse the medical reimbursement and travel allowance claims of the employees in service too. The cheques issued by the government to various agencies bounced back, as there was no money in the respective bank accounts held by the government. In short, the government lived far beyond its means. All this greatly affected the credibility of the government and the growth of the economy. Hence, Kerala was forced to recognise the need for a stabilisation policy to correct the lapses and for a structural reform policy to accelerate economic growth when it stepped into the next—the 21st century. The process of reforms was set in motion in June 2001 when the state came out with a white paper describing its fiscal scenario and the crisis. Reform measures followed suit almost immediately.

The last time the government established new healthcare facilities in Kerala was during the 1980s. After the mid-1980s, as in the case of other states, creation of new government healthcare facilities and maintenance of the existing ones failed to materialise. This, one can say, has already shaken the very foundation of the Kerala model of ‘Good Health at Low Cost’. The foundation was provided by universal availability, accessibility and performance of the government healthcare delivery system to even the poorer sections of the society; in fact, the competition from government facilities served as an important factor in determining treatment costs even in private hospitals (Government of India, 1997; Krishnan, 1994; Kunhikannan and Aravindan, 2000; Uplekar and George, 1994). ‘Mediflation’ in Kerala is quoted as 500–900 per cent while the annual general inflation rate hovers around 5 per cent (Aravindan and Kunhikannan, 2000). Poor allocation to health—especially to the non-salary component—has resulted in underutilisation of government healthcare facilities, as they are unable to meet the rising demand for

healthcare. In Kerala, only 30–40 per cent of even the low-income group seek medical help from the government (Kunhikannan and Aravindan, 2000). The private sector services the unmet healthcare needs, resulting in commercialisation of healthcare—implying high healthcare costs and denial of service to persons unable to pay. The increase in healthcare expenditure has been three to four times higher for the poor, who are compelled to spend nearly 40 per cent of their incomes on healthcare, compared to the rich, who spend only 2.4 per cent. Only about 15 per cent of the rural inpatients and about 10 per cent of the urban inpatients receive free treatment in Kerala (Krishnan, 1994). Regardless of their efficiency, perceived quality of care, and physical accessibility, economic circumstances and rising costs of private medical care force the poor to access public healthcare services. Public healthcare institutions now find themselves under much closer scrutiny than ever before, as privatisation has become a centrepiece of economic liberalisation and structural reform, owing to the general perception that government institutions are inherently inefficient and the only way to rehabilitate them is by transferring ownership to private hands.

This chapter analyses the impact of this fiscal crisis and the measures to overcome it, on the financing and organisation of public healthcare services in Kerala. The following section explains the fiscal crisis in some detail while the third section briefly describes Kerala's health system. Section 4 provides the rationale for government intervention in health and Section 5 analyses the impact of the fiscal crisis on public healthcare services. The penultimate section is devoted to the analysis of the implications of reform measures for public healthcare services. The last section draws the main conclusions.

KERALA'S FISCAL CRISIS

There is no standard measure for evaluating financial soundness or deterioration of a country/state. Very often, fiscal deficit as a proportion of the gross domestic product (GDP)/GSDP is regarded as an appropriate measure (Rangarajan, 2000). The ratio of GFD to GSDP indicates how well the GFD is controlled in relation to the economic growth achieved by the state. A ratio of 3 per cent is suggested as a standard limit for the GFD.

The GFD in Kerala rose steeply in the late 1980s and 1990s. It grew at a rate of 17.03 per cent during 1986–90, 12.43 per cent during 1991–96 and 32.44 per cent during 1996–2000. Table 15.1 indicates that it

increased four-fold during 1994–2000, breaching the Rs 1,000-crore mark in 1994–95, the Rs 2,000-crore mark in 1997–98, the Rs 3,000-crore mark in 1998–99 and the Rs 4,000-crore mark in 1999–2000. The ratio of the GFD to the GSDP has been above the acceptable limit of 3 per cent throughout the decade, although it was lower than 4 per cent till 1996–97. But, it has been rising since then at an alarming rate to reach 7.26 per cent in 1999–2000; revenue deficit alone was 5.59 per cent of the GSDP. The worrisome feature of the GFD is that it has grown largely on account of higher revenue deficit. The gap between revenue expenditures and receipts has been widening consistently since the early 1970s, and it assumed threatening proportions during the late 1990s (Figure 15.1). From a gap of Rs 7.3 crore in 1971–72, it grew to Rs 3,624 crore (about 500 times) in 1999–2000 before coming down to Rs 2,605.6 crore in 2001–02. Revenue receipts have grown 50 times while revenue expenditures have grown 63 times during 1971–2000.

Table 15.1
Fiscal Deficit, Public Debt, and Debt Servicing in Kerala

<i>Year</i>	<i>Gross fiscal deficit (Rs crore)</i>	<i>Percent-age of GSDP*</i>	<i>Public debt (Rs crore)</i>	<i>Percent-age of GSDP</i>	<i>Debt servicing (Rs crore)</i>	<i>Percent-age of GSDP</i>
1994–95	1,108.7	3.47	8,820.9	27.67	819.67	2.57
1995–96	1,302.7	3.60	10,113.5	26.09	924.16	2.38
1996–97	1,542.5	3.47	11,420.9	25.69	1,103.41	2.48
1997–98	2,413.9	4.88	12,868.1	26.00	1,286.09	2.60
1998–99	3,012.2	5.36	15,700.3	27.90	1,446.26	2.57
1999–2000	4,536.6	7.26	20,176.0	31.14	1,952.29	3.01
2000–01	3,520.2	5.10	23,919.0	34.64	2,257.60	3.27
2001–02	3,139.7	4.12	26,950.6	35.38	2,489.00	3.27

Source: Government of Kerala, 2001a; 2002; 2003.

Note: *Gross State Domestic Product.

There was a general decline in the growth of revenue receipts in the state over the last three decades of the 20th century, from 16.49 per cent in the 1970s to 13.69 per cent in the 1980s and further to 12.67 per cent in the 1990s (Government of Kerala, 2003). On the other hand, there has been a gradual increase in the growth of revenue expenditures from 15.24 per cent in 1970s to 15.75 per cent in 1980s and to 17.02 per cent in 1990s. The growth was nearly 19 per cent during 1996–2000 and 25.33 per cent in 1999–2000. That is, from a positive net growth (growth of

receipts minus growth of expenditure) of about 5 per cent in 1991-92, revenue receipts have registered a negative net growth of 15 per cent in 1999-2000. Overall, the growth of revenue was more than that of expenditure till 1995-96 and the trend was reversed from 1996-97 (Figure 15.2). As indicated in Figure 15.2, revenue receipts showed a declining trend during the 1990s whereas revenue expenditure was steadily rising before it was brought down during 2000-01 and 2001-02. Nevertheless, one invariably followed the other although the rate varied.

Figure 15.1 Revenue Receipts vs Revenue Expenditure

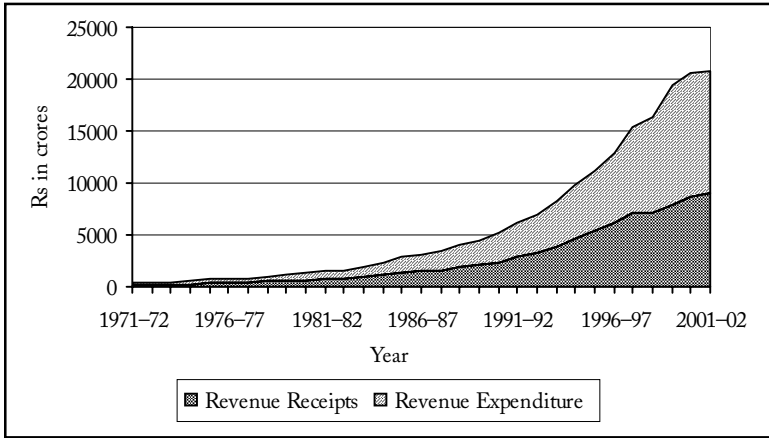
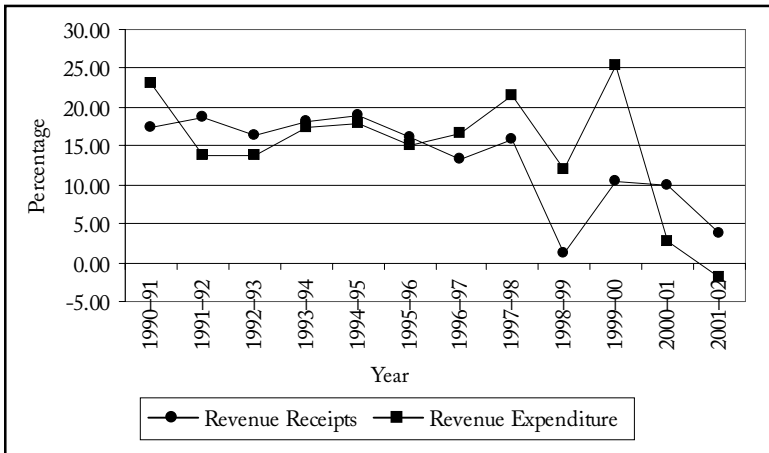
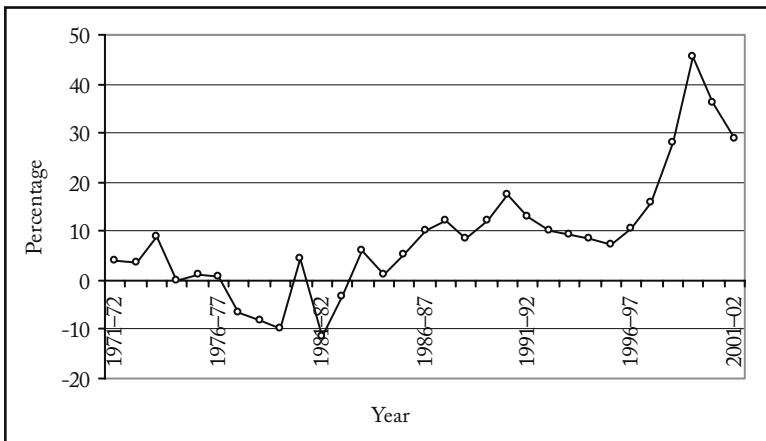


Figure 15.2 Growth of Revenue Receipts and Expenditure



Revenue deficit as a proportion of revenue receipts increased sharply from 1.22 per cent in 1984–85 to a whopping 45.63 per cent in 1999–2000. It came down to 28.77 per cent in 2001–02 (Figure 15.3). The increase has been very steep (six times) between 1995–96 and 1999–2000. The ratio of revenue deficit to revenue receipts increased by about 3 per cent in 1996–97, by 5 per cent in 1997–98, by 13 per cent in 1998–99, and by 17 per cent in 1999–2000. Therefore, there has been an accelerated growth of revenue deficit during 1995–2000. This is undesirable because the best way of reining in the fiscal deficit is by reducing the revenue deficit (Rangarajan, 2000). Borrowing by the government for the purpose of revenue expenditure is harmful to the economy. The debt-to-GDP/GSDP ratio could be another indicator for financial soundness or deterioration, as outstanding debt affects the functioning of the economy (Musgrave and Musgrave, 1984). The creation of fresh public debt or the accumulation of existing debt leads to fiscal bankruptcy and places an unfair burden on future generations. As the debt grows larger and larger, it places a greater and greater burden on the future generations because servicing the rising debt requires fresh taxes that carry deadweight losses. The severity could increase as the ratio of tax (to service the debt) to the GDP/GSDP increases. Continued expansion of debt combined with a constant or decreasing GDP/GSDP would lead to an infinite debt-to-GDP/GSDP ratio and a debt trap.

Figure 15.3 Revenue Deficit as a Percentage of Revenue Receipts



Public debt in Kerala has been increasing steadily since 1971–72. It has grown 71 times from Rs 282.4 crore in 1971–72 to Rs 20,176 crore in 1999–2000. The growth was 15.72 per cent in the 1970s, 16.48 per cent in the 1980s and 17.63 per cent in the 1990s. However, the growth has been positive and steady, not steep or alarming. In other words, public debt has been accumulated over a period of 30 years; it is not a recent phenomenon. The share of public debt in the GSDP was 35.38 per cent in 2001–02, up from 27.67 per cent in 1994–95 (Table 15.1). Servicing the debt (interests) has increased from Rs 819.67 crore in 1994–95 to Rs 2,489 crore in 2001–02. Debt servicing constituted 3.27 per cent of the GSDP in 2001–02, compared to 2.57 per cent in 1994–95. An alarming 27.5 per cent of revenue receipts were used to service the debt in 2001–02.

KERALA'S HEALTH SYSTEM

Kerala is characterised by the co-existence of an almost stagnant economy and a good quality of life. The state's achievement in the field of health still remains a conjecture; the entire world is keen to understand and analyse Kerala's progress in health. As per the *National Human Development Report 2001* (Government of India, 2002b), Kerala is well and truly on top of all the other Indian states in terms of health indicators of its population. In fact, Kerala achieved the health targets set for 2000 in the early 1970s itself and its success vis-à-vis health departs significantly from traditional models of economic development (Government of India, 1982; Issac and Franke, 2000; Kannan et al., 1991; WHO, 2000). This shows that even at low levels of economic development, basic needs can be met through appropriate redistribution strategies.

Kerala's statistics on crude death rate (CDR), infant mortality rate (IMR), and life expectancy at birth are comparable to those in middle- or high-income countries (Government of India, 2001; 2001a; Panikar, 1999; UNDP, 1997). Its life expectancy at birth of 73.3 years (in 2001) was 12.2 years higher than the national average and 18.1 years higher than that of Madhya Pradesh (Government of India, 2001; 2002b). Similarly, it achieved the replacement level of fertility, i.e., a total fertility rate (number of live births a woman is expected to deliver during the reproductive age of 15–49 years) of 2.1, in 1996–97 even when the Indian average was 3.4 (NCAER, 2001); it was 1.8 in 2001 (Government of India, 2002b). Kerala's CDR of 6.2 per 1,000 population in 1997 was 1.7 less than the national average and 4.8 less than Madhya Pradesh. Its IMR

was 42 per 1,000 live births in 2001 compared to the Indian average of 77; Madhya Pradesh's IMR was 216.7 per cent higher than that of Kerala. Kerala's IMR has been below the national average ever since 1911 (Kannan et al., 1991). The difference in IMR between Kerala and national average rose from 12.9 per cent in 1911 to 80 per cent in 2001 (Government of India, 2001). Health professionals attended to 94.1 per cent of the births in Kerala in 1998–99; the proportion was 42.3 per cent at the national level and a mere 21.5 per cent in Assam (Government of India, 2002). The difference was more pronounced in rural areas, where the proportion was 92.8 per cent in Kerala but only 33.5 per cent at the national level and 18.9 per cent in Assam.

Kerala has a long history of organised healthcare. By the time the state was formed in 1956, the foundation for a medical care system accessible to all citizens was already laid. Some of the government hospitals in the state are about 150 years old. The number of beds in state government allopathic hospitals increased from around 13,000 in 1960–61 to 46,800 in 2001–02 (Government of Kerala 2002; Kutty 1999). Health has been a major expenditure head in Kerala's budget from its early years. The annual growth rate of government healthcare expenditure during its first three decades was 13.04 per cent, outstripping the growth of the GSDP (9.81 per cent) during the same period.

At present, Kerala's healthcare infrastructure includes 15,409 institutions and 126,013 beds (Table 15.2); besides, there are 5,094 sub-centres each covering a population of about 4,700. There exists a healthcare centre, bed and doctor respectively for every 2,066, 253 and 587 inhabitants in the state. While 36.8 per cent of the institutions and 55.9 per cent of the doctors practice the allopathic system of medicine (with 94.3 per cent of beds allotted to them), 37.4 per cent of institutions and 25.9 per cent of doctors are aligned with the Ayurvedic system (with 4.2 per cent of the beds). Homoeopathy shares 23.9 per cent of the institutions, 1.2 per cent of the beds and 15.5 per cent of the doctors. The remaining 1.9 per cent institutions, 0.3 per cent beds and 2.7 per cent doctors are affiliated to other systems such as Siddha and Unani.

The public sector controls 17.7 per cent of the institutions, 41.4 per cent of the beds and 13.6 per cent (10.7 per cent allopathic and 2.9 per cent Ayurvedic and homoeopathic) of the doctors while 81.9 per cent of the institutions, 56.3 per cent of the beds and 85.7 per cent of the doctors are in private sector; the residual are in the cooperative sector. Private facilities now outstrip government facilities as regards the density of beds and employment of personnel. About 40 per cent of government

Table 15.2
Healthcare Infrastructure in Kerala in 2002*

<i>Sector</i>	<i>Number of institutions</i>	<i>Per 100,000 Population</i>	<i>Beds</i>	<i>Per 100,000 Population</i>
Allopathic	5,674 (36.8)**	17.82	1,18,843 (94.3)	373.27
Public Sector	1,325 (23.3)	4.16	48,586 (40.9)	152.61
Primary health centres	941 (71.0)	2.96	5,166 (10.6)	16.23
Community health centres	107 (8.1)	0.34	4,503 (9.3)	14.14
Hospitals	143 (10.8)	0.45	31,905 (65.7)	100.21
Others	134 (10.1)	0.42	7,012 (14.4)	22.02
Private sector	4,288 (75.6)	13.47	67,517 (56.8)	212.06
Cooperative sector	61 (1.1)	0.19	2,740 (2.3)	8.61
Ayurvedic	5,769 (37.4)	18.12	5,273 (4.2)	16.56
Public sector	842 (14.6)	2.64	2,644 (50.1)	8.30
Private sector	4,922 (85.3)	15.46	2,595 (49.2)	8.15
Cooperative sector	5 (0.1)	0.02	34 (0.7)	0.11
Homoeopathy	3,676 (23.9)	11.55	1,479 (1.2)	4.65
Public sector	555 (15.1)	1.74	970 (65.6)	3.05
Private sector	3,118 (84.8)	9.80	394 (26.6)	1.24
Cooperative sector	3 (0.1)	0.01	115 (0.08)	0.36
Others	290 (1.9)	0.91	418 (0.3)	1.31
Private sector	290 (100)	0.91	418 (100)	1.31
State Total	15,409 (100)	48.40	126,013 (100)	395.79

Sources: Government of Kerala, 2003; Varatharajan et al., 2002.

Notes: * Figures concerning the private sector correspond to the year 1995; ** Figures in parentheses are the percentages.

allopathic doctors are in five medical colleges, leaving 60 per cent with district hospitals, *taluk* (sub-district) hospitals, general hospitals, hospitals for women and children, dispensaries, grant-in-aid hospitals, community health centres and primary health centres.

One government allopathic institution in the state covers about 30 sq. km on an average (100 sq. km in Idukki and 16.7 sq. km in Alappuzha) whereas one bed serves 1 sq. km (0.3 sq. km in Thiruvananthapuram and 5 sq. km in Idukki) (Varatharajan et al., 2002). Similarly, there is a government allopathic doctor for every 11 sq. km (4.5 sq. km in Thiruvananthapuram and 50 sq. km in Idukki) and a nurse for every 4.8 sq. km (1.5 sq. km in Thiruvananthapuram and 33.3 sq. km in Idukki). Each field staff serves 3.6 sq. km (1.9 sq. km in Alappuzha and 7.7 sq. km in Idukki). A government pharmacist is in place for every 25 sq. km ranging between 10 sq. km in Alappuzha and Thiruvananthapuram districts and 100 sq. km in Idukki.

RATIONALE FOR GOVERNMENT INTERVENTION IN HEALTH

Like in any other tax-financed economy, health competes for resources with other sectors of the economy although whether or not health can be treated as a 'commodity' is widely debated (Fuchs and Zeckhauser, 1987). Health is fundamentally different from other things that people want. The person who seeks healthcare is a consumer and may also be a co-producer of his/her health through good habits of diet, hygiene, and exercise and compliance with medication or other recommendations of the provider (WHO, 2000). But, he/she is the physical object to which all such care is directed. Health, then, is a characteristic of an inalienable asset and, in this respect, resembles other forms of human capital, such as education, professional knowledge, or athletic skills. Unlike other commodities, initial endowment of health is important for better health because children inherit their parental health. People start with some initial stock of health and any erosion in it is rectified through healthcare. So, it is not really an addition but a mere restoration of stock. Similarly, an individual's health is self-produced and not produced by specialists and then sold to the general public as in the case of other commodities. Health is also not tradable, unlike other commodities. One can enhance it through better lifestyles and through consumption of other commodities but it cannot be transferred to others with or without price. This argument, however, may be disputed because transfer of health exists in practice in the form of organ transplantation; organs such as the kidneys and the liver,

as also blood are even traded for a price, though it is unethical and illegal to do so.

Another abnormality concerning health is that it exhibits three distinctly different characteristics: public, merit and private goods. Most of public health and preventive measures are public goods. Public goods are non-exclusive (it is impossible or prohibitively costly to make their consumption exclusive to those who would demand and pay) and/or non-rival (consumption by one person does not lessen the quantity available to others) in consumption. Public goods carry significant externalities that are not valued and priced. Examples include programmes to provide clean water, sanitation, vector control, road safety, air and water pollution control, water fluoridation and mass health education (Hsiao, 1995). These benefits are non-marketable and, therefore, cannot be priced.

On the other hand, merit goods comprise services such as family planning and certain primary care services whose consumption produces greater social benefit than private benefit. Another type of merit good, such as vaccination and control of sexually transmitted diseases, produces externalities. A third type of merit good includes services such as emergency services for trauma patients and medical services to relieve acute pain and basic health services to vulnerable people possessing significant interpersonal utility value. Finally, merit goods also include services where individuals lack sufficient education or rationality to make rational consumption decisions. For example, many people significantly discount preventive services that produce future benefits.

Private goods are those services that exclusively benefit the persons who consume them and that, if consumed by one person, cannot be consumed by another. Because of their exclusivity, the market can produce and distribute them efficiently. Most of the curative medical services and drugs fall into this category. Hence, only private good has certain 'market' characteristics.

According to economic theory, it is socially optimal for the government to finance and possibly provide public and merit goods while it may be more efficient for the free market to finance and provide the private good (Samuelson, 1954). The *World Development Report 1993* (World Bank, 1993) provides three justifications for government intervention in health (World Bank, 1993).

1. The poor cannot always afford healthcare that would improve their productivity and well-being. Publicly financed healthcare services would help reduce poverty or alleviate its consequences.

2. Some actions that promote health are pure public goods or create large positive externalities. Private markets would not produce them at all or would produce too little.
3. Market failures in healthcare mean that government intervention can raise welfare by improving the functioning of markets.

While market failure reasoning is provided in favour of government intervention in health, the government too can fail if it fails to get 'value for money' whenever it devotes public resources to health. India's NEP tries to strike a balance between 'market failure' and 'government failure'. The new philosophy of the government seems to be that the government should intervene only when there is 'double market failure' (Rangarajan, 1998). Double market failure implies that besides market failure, it should be established that that less interventionist strategies fail to correct market failure.

FISCAL CRISIS AND PUBLIC HEALTHCARE SERVICES IN KERALA

Given the rationale favouring the government's provision and financing of healthcare, governments in India possibly have the following three roles to play:

1. Provision
2. Financing
3. Regulation

At the time of India's Independence, hardly any healthcare system existed. The government system was yet to be developed and the private sector had only token presence in the organisation and financing of healthcare (FRCH, 1987). All that was visible at that time was a loosely defined Indian system of medicine. When the blueprint for India's healthcare system was drawn, it was clear that government(s) would play a major role in all the three areas of healthcare mentioned above. The entire health system was designed to evolve in that fashion and it closely followed the country's fiscal scenario. Since health is a state subject, states' policies and financial soundness greatly influenced the evolution of the health system.

As stated earlier, Kerala's fiscal deficit, public debt and debt servicing have all crossed the acceptable limits during the 1990s. Persistent economic stagnation, growing unemployment and an acute fiscal crisis in Kerala have now raised serious doubts about future health prospects and

about the sustainability of the Kerala model (George, 1993). Nevertheless, the fiscal crisis seems to have benefited the government health sector. A similar result was obtained by another study as well (Panchamukhi, 2000). Government health expenditure has increased whenever fiscal deficit has increased and vice versa (Figure 15.4). While budgetary resources have grown four-fold between 1991–92 and 2002–03, government resources for health have grown five-fold. Hence, it appears that it is not the fiscal crisis per se but the measures to overcome it that are likely to do more damage to the government health sector.

This result has to be carefully interpreted. If the government's share in health expenditure went up from 1998–99 along with fiscal deficit, it was due to an increase in staff salary following the Fifth Pay Commission awards and not due to the government's benevolence towards the health sector. This argument is strengthened if we analyse the budgetary share of health in the period preceding 1998–99.

It has been declining gradually from 6.95 per cent in 1980–81 to 4.91 per cent in 1997–98 (Table 15.3). A steep increase in the salary component in revenue expenditure led to a cutback on supplies and maintenance; the cutback was felt heavily by the district and *taluk* (sub-district) hospitals (Kutty, 1999). Capital expenditure as a proportion of total government health expenditure also dropped to 3.3 per cent in 2002–03 from 7 per cent in 1994–95; it might decline further to 2.8 per cent in 2003–04. The share of government health expenditure per se has come down from 1.46 per cent of the GSDP in 1992–93 to 1.17 per cent in 2001–02. Health's share in total government maintenance expenditure has come down from 1.39 per cent in 1990–91 to 0.78 per cent in 1999–2000 (Table 15.4). Its share in revenue expenditure came down from 40.12 per cent in 1990–91 to 25.83 per cent in 1999–2000. Hence, an increase in government health expenditure did not add to the non-salary component.

Even though the salary component of health expenditure rose, it did not result in increased staff strength. Manpower in the government allopathic system declined or remained static during the 1990s while bed strength grew moderately (Figure 15.5). The number of beds in government institutions grew from 36,000 to 38,000 (5.8 per cent) during 1986–96 while the number of private beds grew from 49,000 to 67,500 (37.8 per cent) (Kutty, 1999). Therefore, the increase in government expenditure failed to improve healthcare access to the people for whom the public healthcare system exists. Hence, an increase in budgetary allocation to health is a necessary but not sufficient condition for better healthcare.

Figure 15.4 Fiscal Deficit and Government Health Expenditure

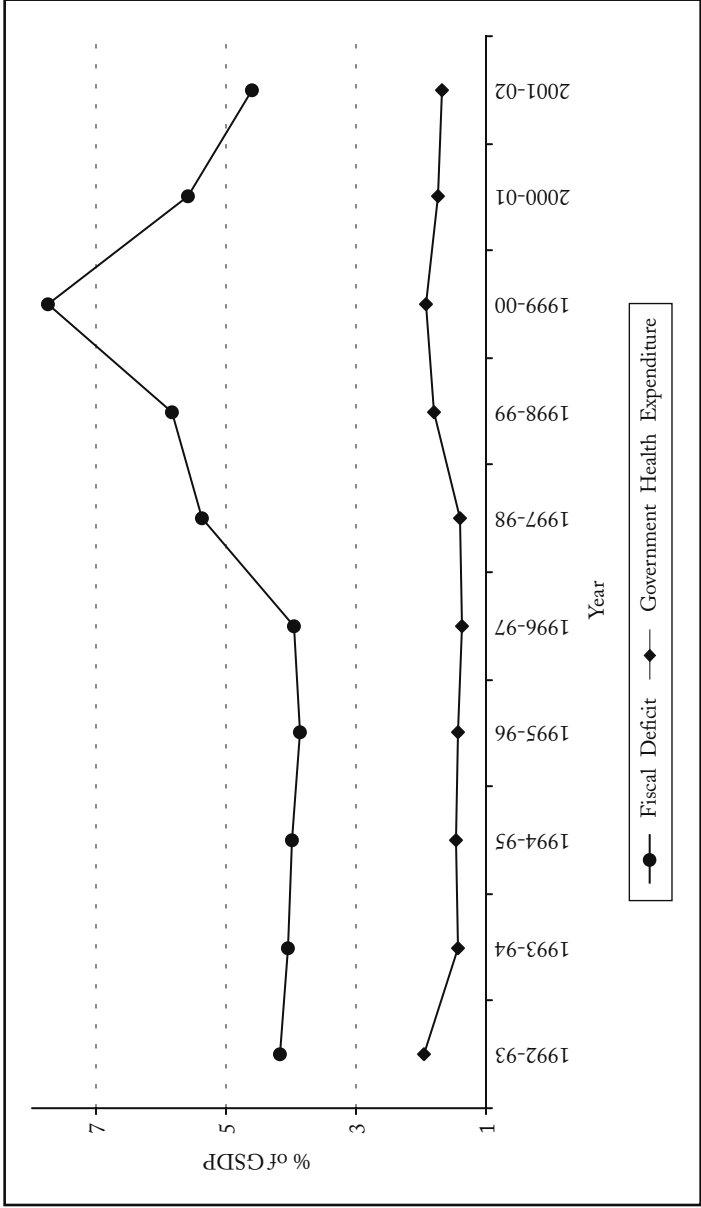


Table 15.3
Budgetary Share of Health in Kerala

Year	Expenditure (Rs crore)			Proportion in the budget (%)
	Revenue	Capital	Total	
1990-91	176.97 (97.7)	4.18 (2.3)	181.15 (100.0)	5.88
1991-92	186.90 (97.2)	5.42 (2.8)	192.32 (100.0)	5.50
1992-93	283.6 (97.4)	7.47 (2.6)	291.07 (100.0)	7.40
1993-94	239.27 (96.3)	9.38 (3.7)	248.65 (100.0)	5.34
1994-95	285.91 (93.0)	21.66 (7.0)	307.57 (100.0)	5.58
1995-96	337.56 (94.8)	18.33 (5.2)	355.89 (100.0)	5.57
1996-97	368.32 (94.1)	23.25 (5.9)	391.57 (100.0)	5.28
1997-98	419.62 (95.2)	21.38 (4.8)	441.00 (100.0)	4.91
1998-99	694.86 (95.9)	29.89 (4.1)	724.75 (100.0)	7.34
1999-2000	870.38 (97.3)	24.56 (2.7)	894.94 (100.0)	7.32
2000-01	837.04 (97.8)	18.79 (2.2)	855.83 (100.0)	6.87
2001-02	861.21 (97.0)	26.77 (3.0)	887.98 (100.0)	7.27
2002-03**	923.11 (97.2)	26.67 (3.3)	949.78 (100.0)	6.60
2003-04*	1,137.30 (97.2)	32.51 (2.8)	1,169.81 (100.0)	7.27

Source: Government of Kerala, 2003.

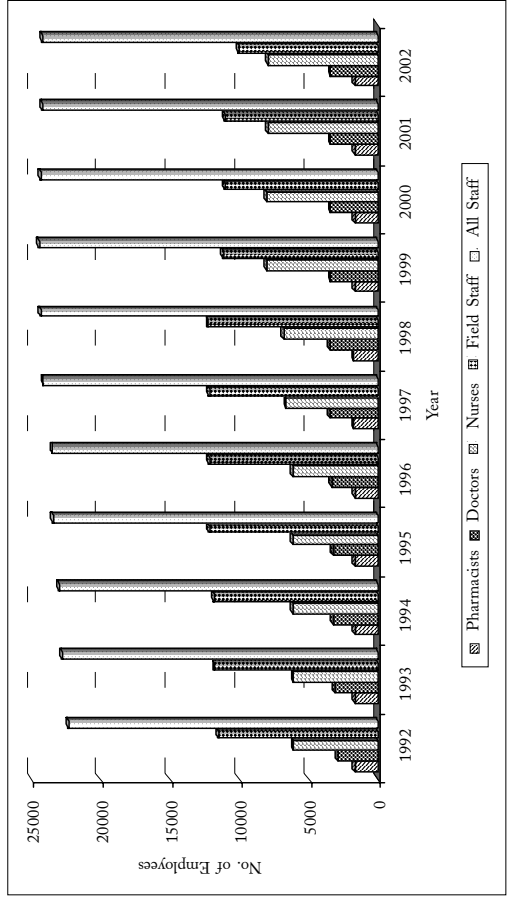
Notes: *Budget estimates; **Revised estimates.

Table 15.4
Kerala's Maintenance Expenditure on Health during the 1990s

Year	Maintenance expenditure on health (Rs crore)	Percentage of total maintenance expenditure	Percentage of total revenue expenditure
1990-91	39.16	1.39	40.12
1991-92	11.02	0.34	15.48
1992-93	38.89	1.06	32.06
1993-94	48.3	1.12	32.03
1994-95	60.01	1.18	36.57
1995-96	67.09	1.15	30.26
1996-97	85.57	1.26	31.95
1997-98	73.21	0.89	29.33
1998-99	79.68	0.86	27.86
1999-2000	89.66	0.78	25.83

Source: Government of Kerala, 2003.

Figure 15.5 Growth of Manpower in the Government Allopathic System



OVERCOMING FISCAL CRISIS AND ITS IMPLICATIONS
FOR PUBLIC HEALTHCARE SERVICES

The situation vis-à-vis fiscal crisis seems to have improved after the release of the white paper by the government in 2001 (Government of Kerala, 2003). The white paper aimed at (a) stabilisation to correct lapses and put the house in order in the short term and (b) structural reforms to accelerate economic growth over the medium term. The stabilisation plan appears to be working: the fiscal deficit has come down from 7.26 per cent of the GSDP in 1999–2000 to 4.12 per cent in 2001–02; it might come down further to under 4 per cent in 2003–04 (Government of Kerala, 2003a).

The idea of structural reform was to slowly withdraw the public sector from some of the areas where no public purpose is served by its presence. In essence, the principle of the market economy was accepted as the main operative principle for public sector enterprises unless commodities and services produced and distributed are specifically for protecting the poorest in the society. These measures that are meant to improve resource availability to sectors such as health by releasing unproductive resources tied up elsewhere may actually damage the health sector if careful, sector-specific strategies are not worked out. After the introduction of the reform measures, the share of health in the budget has come down from 1.43 per cent of the GSDP in 1999–2000 to 1.17 per cent of the GSDP in 2001–02. Hence, control of the fiscal deficit led to a reduction in the government's health expenditure. Countries such as the UK, the USA and Zimbabwe experienced similar trends after the introduction of market reforms (Hilary, 2002). As a result, there exists disguised unemployment of government healthcare resources in the health sector. If the trend continues, then the spirit with which reform measures were drafted would be lost and the worst victim would be the poor and underprivileged. Poor efficiency/inefficiency of the public healthcare sector actually affects the rural people and poor who are found to utilise public sector healthcare to a greater extent (Krishnan, 1994).

The opening up of the health sector to the private sector facilitates access to higher levels of healthcare services by the better-off but neglects the poor. For instance, access to innovations such as tele-medicine is restricted to the educated and rich section of the population. The result is the 'medical poverty trap' with more and more people likely to remain untreated. This conflicts with principles of universal coverage of healthcare and shared risk upheld by the tax-funded health system (Price et al.,

1999). The growth of non-governmental healthcare institutions also is usually skewed in favour of urban and developed areas where only 35 per cent of the people live. As a result, the resource burden of the poor increases, as they spend on transport in addition to direct healthcare expenditure. This is in addition to the wage loss on account of illness, which again would go up if they were to rely on urban facilities due to increased time cost.

The recent reduction in the number of drugs under price control—from 378 to 73—only compounds the problems. The prices of drugs that have gone out of price controls since 1995 have already increased significantly by about 77–457 per cent during 1995–98 (Duggal, 2002). Consequently, the monetary value of pharmaceutical production has gone up by Rs 130 billion during the 1990s, as against Rs 38 million during the preceding four decades. The increase in the value of pharmaceutical production need not indicate an increase in the availability of drugs and medicines in the country, as it could simply be a value transfer from consumers to producers.

CONCLUSIONS

The subject matter for this chapter has been the fiscal crisis and its link with the public healthcare sector. The fact that Kerala did face (and is still not completely out of it) fiscal crisis (fiscal deficit, public debt and debt servicing crossed acceptable limits) during the 1990s has been clearly established. Fiscal deficit increased four-fold and its ratio to the GSDP rose from 3.47 per cent in 1994–95 to 7.26 per cent in 1999–2000, compared to the acceptable level of 3 per cent. The gap between revenue expenditure and receipts alone widened 360 times between 1971–72 and 2001–02. While revenue receipts grew faster than the expenditure till 1995–96, the trend was reversed from 1996–97. The debt-to-GSDP ratio increased from 27.67 per cent in 1994–95 to 35.38 per cent in 2001–02. Consequently, interest payments increased from 2.57 per cent of the GSDP in 1994–95 to 3.27 per cent in 2001–02. There are signs of recovery after the release of the white paper in 2001. The GFD has come down from 7.26 per cent of the GSDP in 1999–2000 to 4.12 per cent in 2001–02. However, public debt and interest payments are still rising and so the state is not completely out of trouble yet.

Government expenditure on health has closely followed fiscal deficit; the higher the fiscal deficit, the better it is for the public healthcare sector. While budgetary resources grew four-fold between 1991–92 and

2002–03, resources for public healthcare sector grew five-fold. However, government healthcare expenditure as a proportion of the GSDP declined from 1.46 per cent in 1992–93 to 1.17 per cent in 2001–02. The non-salary component of revenue expenditure and capital expenditure suffered during the crisis period. Maintenance expenditure came down from 1.39 per cent of total government maintenance expenditure in 1990–91 to 0.78 per cent in 1999–2000. Capital expenditure dropped from 7 per cent of total government health expenditure in 1994–95 to 3.3 per cent in 2002–03; it might decline further to 2.8 per cent in 2003–04. All these have affected the growth and maintenance of physical infrastructure such as beds, building space and equipment. However, even an increase in salary expenditure has not augmented the manpower.

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VII

PLANNING AND STATE FINANCE

INTRODUCTION

The concept and philosophy of decentralised planning received renewed attention in India with the 73rd and 74th Constitutional Amendment Acts of 1992. In response to this national initiative, the United Democratic Front government under the stewardship of A.K. Antony introduced the Kerala State Panchayat Raj Bill in the state legislature in March 1994. The bill was passed in the legislature and the new act confirmed to the mandatory provisions of the Constitution. The Kerala Panchayat Raj Act, 1994, envisaged a three-tier system with the *grama panchayat* at the grass-roots level, the block panchayat at the intermediate level, and the district panchayat at the district level. It also made clear that the *grama sabha* should be the basic spirit and soul of Panchayati Raj institutions in the state. Later, in July 1996, the new Left Democratic Front government, under the leadership of E.K. Nayanar, appointed a committee under the chairmanship of S.B. Sen, to make recommendations for a comprehensive overhaul of the legislation on local self-governments. The official inauguration of decentralised planning or 'people's planning' in Kerala was done by E.K. Nayanar on 17 August 1996 at Thiruvananthapuram. The 'Sen Committee' or the Committee on Decentralisation of Power laid down the basic principles of decentralised planning as follows; autonomy, subsidiarity, role clarity, complementarity, uniformity, people's participation, accountability and transparency. Based on the recommendations in the Sen Committee report, the Government of Kerala (GoK) amended the Kerala Panchayat Raj Act, 1994, and the Kerala Municipality Act, 1994, at the end of 1999. With that amendment, the GoK institutionalised the new development culture, introduced in the state through decentralised planning.

The main objectives of the essay are to examine the people's participation in the decentralised planning process and to evaluate the performance

of various types of Plan projects implemented in the state from 1997 to 2001.

The essay is divided into five sections. The first section deals with the features of decentralised planning in Kerala. The second section profiles sample panchayats and the levels of people's participation there. The third and fourth sections deal with the evaluation of the performance of development projects and beneficiary projects, respectively. The fifth section presents conclusions.

FEATURES OF DECENTRALISED PLANNING IN KERALA SINCE 1996

The Kerala model of decentralised planning has many unique features, which make it different from similar experiments in other states. Issac Thomas (1999), one of the main architects of decentralised planning in Kerala, explains them as follows: (*a*) the GoK has earmarked 35–40 per cent of the plan outlay of the Ninth Plan towards the projects drawn up by local self-governments; (*b*) the devolution of funds has enhanced the autonomy of local bodies; (*c*) the central function of planning has been assigned to the local bodies; (*d*) the planning system is based on the maximum participation of people and on transparency; (*e*) the people's campaign has enhanced the civic culture, which is so essential for government-level planning; (*f*) the local bodies have been encouraged to supplement the grants-in-aid with as many additional resources as possible from other sources, including beneficiary or voluntary contribution of money, material and manpower.

Outlay for Plans in Kerala during 1997–2001

The funds given by the government to local bodies comprised three components: (*a*) General Sector Plan (GSP), (*b*) Special Component Plan (SCP) for Scheduled Castes, and (*c*) Tribal Sub Plan (TSP). In order to ensure the overall thrust of the state plan, certain broad guidelines were given regarding sectoral allocations in the plans of local bodies. Accordingly 40–50 per cent of the funds of the GSP were to be spent on productive sectors, 30–40 per cent on the services sector, and 10–30 per cent on infrastructure for local bodies. The urban local bodies were permitted a higher share of infrastructure. The allocation of 10 per cent of the funds for the women's component of the plan was made mandatory.

Table 16.1 shows the distribution of Plan grant-in-aid given to local bodies from 1997–98 to 2000–01 in the state.

The table reveals that only in the second year (1998–99) has there been an increase in Plan outlay; the total Plan outlay of the local bodies was a little more than Rs 1,000 crore during the third and fourth years. Of the total outlay, 74 per cent went to the GSP, 21 per cent to the SCP, and 4 per cent to the TSP.

Table 16.2 presents a break-up of the Plan funds given to different local bodies—village panchayats, block panchayats, district panchayats, and municipalities. Of the total Plan funds, 57.76 per cent was given to village panchayats, 14.26 per cent to block panchayats, 15.09 per cent to district panchayats, 8.55 per cent to municipalities and 4.3 per cent to corporations.

PERFORMANCE OF DECENTRALISED PLANNING: A STUDY OF FOUR GRAMA PANCHAYATS

Profile of the Panchayats

In order to evaluate the performance of village panchayats in the implementation of decentralised planning, data has been collected from four village panchayats in Thrissur district Alur, Melur, Nattika and Porathissery. Alur belongs to Mala block panchayat and has a population of 37,456. Melur belongs to Chalakudy block panchayat and has a population of 24,854. Nattika belongs to Thalikulam block panchayat with a population of 19,192. Porathissery belongs to Irinjalakuda block panchayat and has a population of 29,018. The main activity of the people in all the panchayats, except Nattika, is agriculture and allied activities. In Nattika, many people depend on the fisheries sector along with agriculture for their livelihoods.

People's Participation in Decentralised Planning

An attempt is made here to examine the levels of people's participation in the decentralised planning process in the four panchayats. The decentralised planning system offer various avenues for people's participation, which include grama sabha meetings, development seminars, neighbourhood groups (NHGs), task forces, expert committees and beneficiary committees as well as voluntary contributions of money, material and manpower. Since the grama sabha provide the primary and

Table 16.1
Year-wise Distribution of Plan Grant-in-Aid to Local Bodies in Kerala, 1997-2001

Year	Amount (Rs crore)			Growth Rate (%)				
	General Sector Plan	Special Com-ponent Plan	Tribal Sub-Plan	Total Plan	General Sector Plan	Special Com-ponent Plan	Tribal Sub-Plan	Total Plan
1997-98	516	194	39	749	-	-	-	-
1998-99	716	195	39	950	38.75	0.52	0.00	26.84
1999-2000	780	200	40	1,020	8.94	2.56	2.56	7.37
2000-01	785	217	43	1,045	0.64	8.5	7.5	2.45
Total	2,797	806	161	3,764				

Source: State Planning Board, 2002.

Table 16.2
Distribution of Plan Grant-in-Aid to Grama, Block and District Panchayats in Kerala, 1997-2001

Local Bodies	Number of local bodies	Amount (Rs crore)			%			
		General Sector Plan	Special Com-ponent Plan	Tribal Sub-Plan	Total	General Sector Plan	Special Com-ponent Plan	Tribal Sub-Plan
Grama panchayats	990	1,664.22	445.56	64.18	2,173.96	59.35	55.28	39.86
Block panchayat	152	356.62	148.52	31.78	536.92	12.75	18.43	19.74
District panchayat	14	356.62	148.52	62.93	568.07	12.75	18.43	38.09
Municipalities	55	276.23	43.96	1.69	321.88	9.88	5.45	1.05
Corporations	3	143.31	19.44	0.42	163.17	5.12	2.41	0.26
Total	1,214	2,797	806	161	3,764	100	100	100

Source: State Planning Board, 2002.

fundamental opportunity for people's participation, the attendance ratio of people in such an assembly can be considered the best indicator of people's participation in the new system of planning. An in-depth analysis of the participation ratio of people in the four panchayats under study is presented here. Table 16.3 shows the average attendance ratio of people in all the wards in the grama sabha meetings during the years 1996 and 2000.

Table 16.3
People's Participation in Grama Sabha Meetings

<i>Panchayat</i>	<i>Year</i>					
	<i>1996</i>			<i>2000</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Alur	9.11	2.22	5.60	5.15	4.12	4.62
Melur	10.21	2.65	6.42	5.34	4.82	5.07
Nattika	13.70	3.42	7.94	15.03	8.71	11.56
Porathissery	7.77	1.76	4.58	7.24	3.74	5.38

Source: Grama sabha report books of Alur, Melur, Nattika and Porathissery panchayats.

It is evident that the percentage of people's participation in grama sabha meetings in all the panchayats except Nattika in 2000 is below the statutory minimum of 10 per cent of the voters in each ward. In 1996, when the government launched the institution of the grama sabha, people were attracted to such meetings by the incessant activities of social workers, people's representatives and politicians. Various programmes like Villambara Jathas, street plays, festivals of development and corner meetings were organised by the authorities for this purpose. Many people, especially the rural poor, rushed to the venues, expecting solid solutions to their teething problems. But the solutions to the problems of a large number of people took the form of tiny and minor projects involving seeds, seedlings and livestock (hens and goats). However, after a short period, the beneficiaries understood the futility and worthlessness of such projects in improving their living conditions. Low people's participation in grama sabha meetings can be attributed to the following factors—negative social capital, lack of clear awareness among people, ignorance and lethargic attitude of the educated middle class, and lack of interest of people after getting projects to attend grama sabhas (this refers to the negative consequences of social capital). According to Portes (2001), it includes exclusion of outsiders, excessive claims on group members, restrictions on

individual freedom and downward levelling norms. After a short period of euphoria and optimism, many people felt that the grama sabha had only a little to contribute towards the improvement in their living conditions. They perceived the idea of the grama sabha as a programme for the poorest of the poor. So they kept away from the grama sabha meetings.

Development Seminars

As the finalisation of various Plan projects is done at development seminars, the participation of people in these shows their interest and sincerity in performing their duties as responsible citizens. These meetings are expected to be the place for proper integration of various grama sabha plans into one cohesive panchayat plan. Another very important condition is that one-third of the participants of the development seminar must be women members and activists.

Table 16.4 captures the participation of people in the development seminars conducted by the four panchayats during the three years from

Table 16.4
People's Participation in Development Seminars, 1997–2000
(Number of people participated)

<i>Panchayat</i>	<i>Year</i>		
	<i>1997–98</i>	<i>1998–99</i>	<i>1999–2000</i>
Alur			
Male	99	111	105
Female	77	94	78
Total	176	205	183
Melur			
Male	117	93	67
Female	30	12	13
Total	147	105	80
Nattika			
Male	177	86	94
Female	27	23	28
Total	204	109	122
Porathissery			
Male	250	110	118
Female	128	72	78
Total	378	182	196

Source: Evaluation reports of Alur, Melur, Nattika and Porathissery panchayats during 1997–2000.

1997 to 2000. It clearly indicates a declining trend in the degree of people's participation in the development seminars. Another notable trend is the very low levels of women's participation. Except in the Alur panchayat, the minimum prescribed ratio of women's participation (one-third) has not been achieved anywhere.

Task Forces

The participation of people as members of task forces was very good in all the panchayats. Each task force is composed of two sets of people: (a) official members; and (b) people's representatives or voluntary workers. Since the number of people required to participate in each task force is rather limited, no panchayat had to face a shortage of people's participation. All the panchayats could mobilise an average of 12 persons each, both men and women, in every task force during the period from 1997 to 2001. Table 16.5 depicts clearly the similarities and dissimilarities between panchayats in the composition and structure of task forces. The number of task forces is the highest in Nattika and the lowest in Melur.

Table 16.5
Number of Task Forces in the Four Panchayats, 1997–2001

<i>Task Forces</i>	<i>Panchayats</i>			
	<i>Alur</i>	<i>Melur</i>	<i>Nattika</i>	<i>Porathissery</i>
Agriculture	1	1	1	1
Irrigation	1	0	0	0
Animal husbandry	1	1	1	1
Industry	1	1	1	0
Education, culture	1	1	1	1
Health, drinking water	1	1	1	1
Housing, social welfare	1	1	1	1
Women's welfare	1	1	1	1
Welfare of Scheduled Castes/Tribes	1	1	1	1
Transport	1	1	1	1
Cooperation	1	0	1	1
Fisheries	0	0	1	0
Public works	0	0	1	0
Resource mobilisation	0	0	1	1
Energy	0	1	0	1
Total	11	10	13	11

Source: Evaluation reports and Plan documents of Alur, Melur, Nattika and Porathissery panchayats during 1997–2001.

Participation of People as Experts and Resource Persons

Various panchayats could mobilise different degrees of people's participation as resource persons and experts (Table 16.6).

Table 16.6
Participation of Experts and Resource Persons, 1997–2001
(Number of participants)

<i>Experts and resource persons</i>	<i>Panchayat</i>			
	<i>Alur</i>	<i>Melur</i>	<i>Nattika</i>	<i>Porathissery</i>
Monitoring committee members	7	17	13	48
People involved in final preparation of draft plan	10	8	10	10
People involved in final preparation of development history	15	8	9	9
Retired people	7	10	9	10
Key resource persons (KRPs)	1	2	2	3
District-level resource persons (DRPs)	21	4	5	18
Local-level resource persons (LRPs)	15	20	30	40

Source: Panchayat documents and discussions with panchayat presidents, secretaries, and convenors of planning in Alur, Melur, Nattika and Porathissery panchayats.

Table 16.6 is a clear indicator of the varying degrees of participation of people as experts and resource persons in the four panchayats. In fact, in the initial years of people's planning, all the people, especially members of the groups shown in the table worked enthusiastically, because it was a brand new and thrilling experience for all of them. Activities like documenting development history, preparing draft plans for their own panchayats, and acting as resource persons to train other activists were taken up seriously by the people. In response to the slogan, 'your life begins after 55', many retired people came forward voluntarily to contribute their valuable experience and service to the people's plan programme. But after a brief honeymoon with the people's plan in their panchayats, most of them went back to their easy chairs, owing to the cold reception and discouraging attitude of the wily politicians and 'professional' social activists.

Projects Completed with Voluntary Contributions of People

Another highlight of the people's plan was the idea of completion of Plan projects with voluntary contribution of money, material and manpower by the people. This was a novel idea but the experience of the panchayats showed that none of them could create any marvels in the field of project implementation, with voluntary contribution of manpower and money by the people during the period 1997–2000. Alur panchayat could mobilise financial contributions for the completion of four roads, four ponds, a *thodu*, an auditorium and a public health sub-centre. In Melur, they could successfully complete five roads with voluntary contributions of manpower. Nattika panchayat also could mobilise voluntary contributions of manpower for the completion of three culverts, a road, a *chira*, and a colony. But Porathissery panchayat could not make any progress in mobilising voluntary contributions of any sort from the people for the completion of development projects. In short the size of resources which the panchayats could mobilise as voluntary contributions during the plan Period 1997–2001 fell well below the expectations of the authorities.

Neighbourhood Groups

The formation of NHGs was another important effort by many panchayats to mobilise maximum participation of people. Fifty families constitute one NHG. It is an innovative aspect of the people's planning programme in the state. But in this regard as well, the performance of the panchayats varies. While Alur and Nattika panchayats could organise a number of NHGs (130 and 45 respectively), Melur and Porathissery panchayats could not make any serious progress in this regard.

Beneficiary Committees

In all the four sample panchayats, a majority of the development projects were implemented with the help of beneficiary committees. People's participation in beneficiary committees was highly encouraging in the initial years but it gradually began to dwindle. As a result, in the course of time, many projects had to be completed with the help of professional contractors.

EVALUATION OF THE PERFORMANCE OF PLAN PROJECTS

Two types of projects were implemented by the panchayats during the four years between 1997–2001: (a) development projects and

(b) beneficiary projects. These projects were spread across the production, service and infrastructure sectors. Table 16.7 illustrates the distribution of projects in the four panchayats across various sectors in the four panchayats from 1 April 1997 to 31 March 2001 and their completion, spillover and droppage ratios.

Table 16.7
Performance of Plan Projects

<i>Sector</i>	<i>Projects</i>			<i>Total</i>
	<i>Completed</i>	<i>Spillover</i>	<i>Dropped</i>	
Production	127 (36.60)	128 (36.89)	92(26.51)	347
Services	146 (47.87)	139 (45.57)	20 (6.56)	305
Infrastructure	138 (36.41)	195 (51.45)	46(12.14)	379
Grand total	411 (39.86)	462 (44.82)	158(15.32)	1031

Source: Derived from the Plan documents and evaluation reports of Alur, Melur, Nattika and Porathissery panchayats (1997–2001).

Note: The figures shown in parentheses are the corresponding percentages.

The table reveals that the spillover ratio, which shows the percentage of incomplete projects to the total number of projects, is very high (44.82), and the droppage ratio, which measures the percentage of dropped projects to the total number of projects, is comparatively low (15.32 per cent). At the same time, the completion ratio—the percentage of completed projects to the total number of projects—is far below the spillover ratio, at (39.86 per cent).

In short, out of the total 1,031 projects formulated and implemented by the four panchayats, from 1 April 1997 to 31 March 2001, 44.82 per cent (462) remained as spillover projects. Another important factor in the structural composition of Plan projects is that, industrial projects received scant attention in all the panchayats; this is evident from Table 16.8. The table shows that industrial sector projects are not only very few in number but also characterised by very high spillover (37.10 per cent) and droppage (32.36 per cent) ratios.

Development Projects and Beneficiary Projects

In order to facilitate better understanding and effective evaluation of their performance, Plan projects can be classified into two groups: (a) development projects and (b) beneficiary projects. Development projects are meant for the entire people living in a ward or panchayat and include roads, culverts, ponds, etc. Individual beneficiary projects are allotted to

Table 16.8
Agricultural and Industrial Sector Plan Projects

<i>Sector</i>	<i>Projects</i>			<i>Total</i>
	<i>Completed</i>	<i>Spillover</i>	<i>Dropped</i>	
Agriculture	108 (37.89)	105 (36.84)	72 (25.26)	285
Industrial	19 (30.65)	23 (37.10)	20 (32.36)	62
Total	127 (36.60)	128 (36.88)	92 (26.52)	347

Source: Derived from the Plan documents and evaluation reports of Alur, Melur, Nattika and Porathissery panchayats (1997–2001).

Note: The figures shown in parentheses are the corresponding percentages.

individuals and their entire benefits accrue to the individuals only, for instance house, toilets, etc. In other words, development projects are meant for the satisfaction of collective wants of the society whereas individual beneficiary projects are meant for the satisfaction of private wants of the citizens.

Evaluation of the Performance of Development Projects and Beneficiary Projects

Table 16.9 provides the general evaluation of the performance of development and beneficiary projects. It reveals that in the cases of both beneficiary and development projects, the total number of incomplete and dropped projects together always outnumbers the total number of completed projects. The spillover ratio is particularly high in the development projects. In the case of beneficiary projects also, things are not very different, except for a slight improvement in the completion ratio. Once the total number of beneficiaries of various projects is identified and the

Table 16.9
Performance of Plan Projects: Development and Beneficiary Projects

<i>Sector</i>	<i>Projects</i>			<i>Total</i>
	<i>Completed</i>	<i>Spillover</i>	<i>Dropped</i>	
Beneficiary projects	142 (42.14)	132 (39.17)	63 (18.69)	337
Social projects	269 (38.76)	330 (47.55)	95 (13.69)	694

Source: Derived from the Plan documents and evaluation reports of Alur, Melur, Nattika and Porathissery panchayats (1997–2001).

Note: The figures shown in parentheses are the corresponding percentages. The period of study is from 1 April 1997–31 March 2001.

allotted funds are distributed to them, the task of the panchayat is over. The actual responsibility for the completion of such projects rests upon the beneficiary. Hence the completion, spillover and droppage ratios of beneficiary projects, when viewed from the panchayat, may vary from the real-life experience of the beneficiary.

Evaluation of the Performance of Development Projects

Development projects play a pivotal role in enabling panchayats to secure the goals of development planning. But the failure of the authorities to facilitate the completion of development projects will inevitably lead to suboptimal conditions in terms of resource allocation and realisation of the targeted levels of growth in output employment and income. The various factors that hinder the timely completion of projects are briefly summarised in Table 16.10.

Table 16.10
Reasons for the Spillover of Social Projects

<i>Reasons</i>	<i>Number (%) of projects</i>	
Delay in getting financing	77	(23.33)
Weak beneficiary committee	95	(28.78)
Delays in the electricity board	12	(3.63)
Seasonal changes	37	(11.21)
Delay in starting the projects	35	(10.6)
Lack of machinery	31	(9.39)
Other factors	43	(12.96)
Total number of projects	330	100

Source: Derived from the Plan documents and evaluation reports of Alur, Melur, Nattika and Porathissery panchayats (1997–2001).

Note: The figures shown in parentheses are the corresponding percentages. The period of study is from 1 April 1997–31 March 2001.

It is clear that inefficient and poor beneficiary committees and lack of funds are the major causes for spillovers. Seasonal changes, delays in starting project execution and lack of machinery are the other major reasons. Various other factors like lack of raw materials, boundary disputes, delays in the execution of deposit works by the Kerala Water Authority (KWA) and such other agencies, delays in valuation, non-availability of land, ignorance and poor management also had played important roles in delaying the timely completion of Plan projects.

Many development projects have had to be dropped by the authorities because of several reasons, which are briefly summarised in Table 16.11.

Table 16.11
Reasons for the Droppage of Development Projects

<i>Reasons</i>	<i>Number of projects</i>	<i>(%)</i>
Lack of financinge	23	(24.21)
Inefficient beneficiary committees	3	(3.15)
Boundary disputes	3	(3.15)
Delays in the electricity board	5	(5.26)
Delays in the water authority	1	(1.05)
Inter panchayat disputes	1	(1.05)
Technical sanction	1	(1.05)
Political disputes	1	(1.05)
Non-availability of land	8	(8.42)
Unviability of project	43	(45.26)
Government sanction	1	(1.05)
Ignorance	2	(2.10)
Poor management	1	(1.05)
Other reasons	2	(2.10)
Total projects	95	(100)

The table shows that 45.26 per cent of the development projects were dropped due to their unviable nature. It is pointed out that projects were prepared by non-officials who did not have technical knowledge about the projects and their implementation. Lack of timely availability of funds was the cause for the droppage in the case of 24.21 per cent of Plan projects. Other major reasons were non-cooperation of farmers in executing the group projects, unwillingness of the farmers to provide beneficiary contributions, delays in executing the deposit works by Kerala State Electricity Board (KSEB) and KWA, inefficiency of beneficiary committees and boundary disputes.

EVALUATION OF BENEFICIARY PROJECTS ON THE BASIS OF SAMPLE SURVEY

Beneficiary projects are aimed towards the enhancement of the living conditions of the people by means of providing assistance to the individuals in cash or kind. This part of the study is based on observations and inferences gathered from 1,380 sample beneficiaries of 47 beneficiary projects undertaken by the four panchayats together from 1 April 1997

to 31 March 2001. Table 16.12 presents the completion, spillover and droppage ratios of the various beneficiary projects in the four panchayats.

Table 16.12
Evaluation of Performance of Beneficiary Projects
(Number of Sample Beneficiary Projects)

<i>Completed</i>	<i>Spillover</i>	<i>Dropped</i>	<i>Total</i>
1,120 (81.16)	18 (1.30)	242 (17.54)	1,380

Source: Tabulated from the survey results conducted by the author during 2001.

The table shows that the completion ratio of beneficiary projects is higher than the droppage and spillover ratios. A large number of sample beneficiaries (81.16 per cent) could effectively complete the implementation of the projects sanctioned to them by the panchayat. But only very few people (1.3 per cent) had to face many problems to complete their projects within the Plan period itself. At the same time, 17.54 per cent of the sample beneficiaries had to drop their projects because of a number of problems. The important reasons for the spillover and droppage of beneficiary projects are the following: defective seedlings, off-seasonal supply of seeds and seedlings, lack of follow-up programmes by the panchayat, poor quality of animals supplied, disease, accidents, poverty of the beneficiary, high cost of raw materials, competition, exploitation by middlemen, poor management, lack of money, delay in receipt of finances and high cost of construction materials.

Further, lack of integration—both horizontal and vertical—at various levels of planning is also found to be an important problem associated with the practice of the people's planning programme in Kerala. This could be noticed in all the four panchayats. Likewise, many incidents of serious violation of the basic principles of decentralised planning—subsidiarity and complementarity—could also be noted in these panchayats.

CONCLUSION

Decentralised planning could not mobilise the expected levels of effective participation of people in the proper functioning of the institution of the grama sabha. The only silver lining in the dark clouds of poor people's participation in grama sabha meetings is the gradual increase in the attendance ratio of women. The empirical results of the studies in the village panchayats show that the spillover ratio of development projects

is very high in all the panchayats. The so-called 'spillover syndrome' is a common feature in all the sample panchayats. The major causes that culminated in the spillover syndrome are weak and inefficient beneficiary committees, inadequate funds, seasonal changes, delays in starting projects, lack of machinery and delays in the execution of deposit works by KSEB and KWA. The study also shows that the major causes for the droppage of Plan projects are the unviable nature of the projects, lack of funds, non-cooperation of farmers, delays in the execution of deposit works, inefficient beneficiary committees and boundary disputes. The performance of beneficiary projects presents another picture. All the sample beneficiaries who availed of various schemes were found to be more or less satisfied. The completion ratio was very high among such projects. In short, the performance of decentralised planning in Kerala presents a mixed trend; we can conclude that it is neither a big success nor an utter failure.

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KERALA
THE FISCAL CRISIS AND ITS AFTERMATH
K.M. Abraham

17

INTRODUCTION

The past decade has witnessed acute deterioration of the state finances in almost all states of India. The Economic Survey (2002–03) of the Government of India points out that fiscal deficit from the states has increased from 3.3 per cent in 1990–91 to 4.6 per cent in 2001–02 (revised estimate [RE]) as a percentage of gross domestic product (GDP), largely contributed by the high growth of revenue expenditure. During this period, the revenue deficit has trebled from 0.9 per cent in 1990–91 to 2.6 per cent of GDP in 2001–02 (RE) while the revenue from the state's own taxes has shown a marginal improvement from 5.3 per cent of GDP in 1990–91 to 5.8 per cent of GDP in 2001–02. Kerala has been no exception to this general phenomenon of the 1990s.

While providing some plausible clues as to what led to the deterioration of the States' finances in the nineties, the above prognostication overlooks the fact that the slide down of the State's budgets had started before liberalisation had taken place. As noted by the Tenth FC, the first turning point came in 1987–88, as the revenue account of the States' budgets went into the red. Things took a turn for the worse in 1990–91 as deficits appeared even in the non-Plan revenue accounts of three States (Kerala, Punjab and West Bengal), joined by other States subsequently (Anand et al., 2004).

However, what perhaps characterised the Kerala experience were two striking features. First, while in most other states comparable to Kerala in terms of its public finance management in the past, this deterioration during the 1990s *almost* precipitated a crisis, Kerala found itself caught in the middle of a full-fledged financial crisis by the middle of 2000–01. Second, the financial crisis that assumed full-blown proportion in the months close to the election to the Legislative Assembly in 2000–01—a time when expenditure compulsions are normally at the peak—and

found the government virtually unable to systematically respond to the challenge of putting the state finances back on track.

OVERVIEW OF PUBLIC FINANCES

In this section, an overview of the structure of public finance in Kerala (1983–2003)¹ is presented, with reference to the fiscal crisis.

Revenue Receipts

Revenue receipts of the government comprise mainly tax and non-tax revenues and receipts from the Union government including the state's share of central taxes and other grants. The state's revenue receipts have historically had a long-term average growth rate of 13.89 per cent over the reference period (1983–2003).² The worst performance in terms of revenue receipts in any single year was in 1998–99 when revenues grew only by 1.07 per cent growth rate. However, during the period that coincided with what can be now generally regarded as the years of the fiscal crisis,³ viz., 1997–2002 [referred to in this chapter as fiscal crisis year (FCY)], the average growth in revenue receipts touched a historical low of 8.19 per cent.

Tax Revenues

Tax revenues include the state's own tax revenues as well as the share of the state in the taxes levied by the Union government. Together they have accounted for 79.93 per cent of the entire revenue receipts of the state over the reference period. During this period, tax revenues in Kerala have grown at an average rate of 14.49 per cent, while in the FCY the growth rate was 8.07 per cent.

Own Tax Revenues

The state's own tax revenues have accounted for 63.04 per cent of the total revenue receipts over the reference period. Sales tax accounts for the lion's share in this. Other major streams of revenue account include state excise, stamps and registration of motor vehicles. But the latter three taken together account for only less than 17 per cent of the state's revenue receipts while the share of sales tax is over 44 per cent.

Own tax revenues have been growing at an average annual growth rate of 15.31 per cent during the reference period. The revenues from the taxes

assessed and levied by the state showed two periods of exceptional growth viz., in the two half-decades, 1976–1980 and 1990–1995. During the FCY, the growth of own tax revenues recorded an all-time low of 8.91 per cent. To appreciate the impact of this low growth, it may be seen that this rate is just a little above half the state's normal growth in revenues.

Sales Tax

The stability that this source of revenue has always provided to the state's finances cannot be overemphasised. The average growth rate of this tax has been 16.12 per cent for the reference period. The state recorded a peak growth exceeding 18 per cent in three half decades, 1971–76, 1981–86, and 1991–96. The worst performance of sales tax collection in any single year⁴ was in 1998–99 when revenues grew only by less than 10 per cent. Paradoxically, while the growth in the FCY touched an all-time low of 9.97 per cent, sales tax continued to account for 44 per cent of the state's revenue receipts; this reflects the general decline of other streams of own tax revenues.

Revenue Expenditure

Revenue expenditure is expenditure that is mainly of a recurring nature, principally consisting of salaries, pensions, wages, debt charges and general expenses needed to run government operations. It is generally taken to denote all expenditure that does not lead to the acquisition or enhancement of assets with a life beyond a period of one year. It includes expenditure on the following broad classes.

Development Expenditure

1. Social and development services (education, health, agriculture, community development, industry and labour)
2. Irrigation
3. Public works
4. Transport and communications
5. Housing and urban development
6. Other development expenditure

Non-Development Expenditure

1. Collection of taxes
2. Interest

3. Administrative services
4. Pensions
5. Others

Revenue expenditure on an average has grown at 16.06 per cent over the reference period. In the last half-decade of the 1990s (1995–2000), revenue expenditure grew by over 18 per cent per annum. This was largely due to the increases registered in 1997–98 on account of the devolution through Plans to local self-governments and in 1999–2000 on account of the pay revision in the government. However, the FCY figures show revenue expenditure reined in at 11.92 per cent. This was less the outcome of prudent financial controls, rather it was because by 2000–01, there was simply no money available with the government to spend.

Salaries, Pensions and Interest

Over the reference period, salaries accounted for 38.7 per cent of the state's revenue expenditure. It grew at a rate of 14.26 per cent over these years. An analysis of the salary expenditure of the state indicates clearly marked peaks coinciding with revision of pay from time to time. Salary expenditure shows a whopping jump of 38.35 per cent in 1999–2000 on account of the pay revision announced in the previous year. Again, an interesting factor is that over the FCY, the average growth rate is only 10.97 per cent, which reflects the controls on the salary bill that the government imposed in the years 2000–02.⁵

The pattern of increase in the pension liability of the state government follows that of salary expenditure. In 1999–2000, the pension bill of the government rose by 56.65 per cent. In any given year, debt servicing charges depend on two factors: the accumulated debt portfolio held by the government and the immediate short-term borrowing resorted to in that year. In 1999–2000, a sharp spurt in these charges (34.99 per cent) is observed. The inordinately high level of short-term borrowings garnered into the treasury to keep the exchequer afloat accounts for this.

Capital Expenditure

Conventionally, expenditure that leads to the creation, acquisition, or enhancement of assets with a life beyond a period of one year can be classified as capital expenditure. This shows an overall average growth rate of 10.53 per cent over the reference period. The growth registered an

average figure of -1.57 per cent. The lowest ever was an abysmally low of -11.81 per cent in 2001–02.

There is a view that the figures of capital expenditure do not actually reflect the amount spent on capital works in the state, as these figures do not account the capital expenditure of local bodies. With one-third of the total annual plan being devolved to local bodies after 1997–98 as a *revenue* grant, this component could be quite sizeable. But, there are no accurate figures as yet. However, since the devolution to local bodies has not been increasing, and there is no argument that the expenditure mix (between revenue and capital) of local bodies has changed, it follows therefore that there has been a real decline in capital expenditure in the state during the FCY.⁶

Debt of the State

Naturally, it was only with unbalanced budgets in the revenue account in the 1980s that debt as a source of financing of state government operations emerged as a major phenomenon. Simply put, this never was much of an issue until the 1990s, as till then the biggest creditor of the state governments was the Union government. For this reason, for analysing the debt, the period of 1991–2003 is used in this chapter. The overall debt grew by 17.18 per cent during the reference period and 17.30 per cent during the period 1999–2003. Total debt obligations of the state increased by 28.51 per cent in the year 1999–2000. A complete sustainability analysis of debt is not within the scope of the essay and hence not attempted.⁷

The debt of the state includes its public debt (comprising internal debt and loans and advances received from the Union government) and debt through small savings, provident fund (PF) and insurance fund.

- Internal debt of the state government comprised market loans, loans from the Life Insurance Corporation (LIC), the General Insurance Corporation (GIC), National Bank for Agriculture and Rural Development (NABARD), compensation and other bonds, National Cooperative Development Corporation (NCDC), loans from other institutions, ways and means advances (WMA) from the Reserve Bank of India (RBI) and, since 1999–2000, Special Securities to the National Sample Survey Fund.
- Loans and advances from the centre include loans for the state Plan, non-Plan loans, central Plan schemes, and central sector scheme loans.

- Other debt instruments come under small savings, PF and insurance fund.

National Cooperative Development Corporation

The internal debt of the state government grew by an average of 21.68 per cent over the period 1991–2003. Its biggest component—market loans—grew at the average rate of 18.07 per cent. Again, while the share of the state's internal debt in the total debt portfolio increased from 24.16 per cent in 1990–91 to 37.82 per cent in 2002–03, the share of market loans remained more or less stable between the two years (18.88–20.9 per cent). Hence, despite the liberalised market borrowing regime of the 1990s, access to market loans (i.e., on relatively easy terms) was much less than the growth in the total internal debt. This means, that the borrowing regime available for states forced it to seek the institutional route (NABARD, LIC, GIC, NCDC, etc.) at relatively higher rates of interest. This should be considered in the backdrop of the fact that the Government of India could mop up resources at will from the market for its own development functions and its performance on control of the fiscal deficit or revenue deficit had nothing to commend itself for.

Loans and advances on the other hand grew only at an average rate of 9.76 per cent per annum. At the same time, the relative share of loans and advances in the total debt fell from 45.91 per cent in 1990–91 to 21.04 per cent.

The relative share of public debt fell from 70.08 per cent in 1990–91 to 58.86 per cent in 2002–03. During this period, public debt registered an average growth rate of 15.35 per cent per annum. Clearly, this would almost suggest that there was a withdrawal by the Union government (or its intermediated support) in financing budgetary operations of the state.

In the absence of any meaningful restraint on public debt for the government through Article 293, this encouraged states like Kerala to mop in resources through other means (i.e., other than through public debt). The share of small savings, PF and insurance funds grew rapidly at 20.65 per cent per annum over this period and its share in the total debt also rose from 29.92 per cent in 1990–91 to 41.14 per cent in 2002–03. Of particular mention is the fact that small savings mobilisation grew at an astronomical average rate of 27.69 per cent (and 32.75 per cent during 1997–2003 i.e., after the beginning of the fiscal crisis). Its share in the total debt too rose from a meagre 9.91 per cent in 1990–91 to 24.77 per cent in 2002–03.

NATURE OF THE CRISIS

The White Paper

The government that was voted to power in May 2001 found itself in the middle of a financial crisis that threatened to paralyse its very functioning. The first step the new government took was to prepare a White Paper (Department of Finance 2001). This was the first systematic attempt in Kerala to initiate any meaningful discussion on the state of public finances or to present the facts before the people of Kerala.

What the White Paper did was to explicitly recognise the fact that the state was facing a fiscal crisis, which had led to a vicious cycle of slow economic growth—and that this had resulted in low investments—both public and private in the state. The White Paper also cautioned that ‘Improved management of the economy and finances of the State—taking a fresh look at development alternatives and options available to us—is the only solution to the crisis.’ It also highlighted the fact that the genesis of the crisis cannot be traced to any particular government alone, but that the seeds of the crisis were sown much earlier in the fiscal history of the state.

The reasons for the crisis are not hard to find—the runaway growth of revenue expenditure in particular, did foreshadow the crisis. But, like many other States in the country, we too, failed to heed the portents sounded by many analysts—and successive governments simply wished the problem away or brushed it aside. The inexorable growth of the revenue deficit, an inordinate increase in public debt as a proportion of the domestic product, increasing reliance on debt for financing current expenditure (not capital expenditure), an unsustainable salary and pension bill that has been building up over time, the commitments on account of debt servicing—all manifest in the imbroglio that we have got ourselves into (Department of Finance, 2001).

Profiling the Fiscal Crisis

The nature of the fiscal crisis that paralysed the exchequer in the state was brought out vividly in the White Paper. But it begs a few questions. What was the real source of the crisis? What is it a crisis that was triggered by unbridled expenditure? If so, was it simply because of a spurt in expenditure caused by the pay revision of government employees and the revision of pensions that accompanied it? Was it runaway expenditure by a government just prior to the elections in 2001? In other words, was the crisis triggered on the expenditure side of the public finance equation? Or was it a crisis caused by a significant collapse of the revenue side of the

public finance balance? How did the revenue collecting machinery fare during that period? Did some sources of revenue simply dry up during the period? Did transfers from Government of India to Kerala dry up during this period, adding to the financial woes of the state government?

In fact, there are no thumb rules to indicate when a fiscal crisis begins or ends. For the government departments and agencies, such a crisis manifests when they are unable to get their allocations on time. For the common man who has to get money from the government treasury, it is when he has to wait weeks or days together to get the cash. For employees, it is when their entitlements do not come to them in time. Table 17.1 indicates some comparative data on selected parameters, in terms of their growth rate both over the reference period (1983–2003) and the FCYs 1997–2002. The worst years on many items compared in the table are 2001–02, indicating how the slump that began in 1997–98 had debilitated the newly elected government well into its first year of administration.

The White Paper (2001: 79) shows that maintenance expenditure accounted for 3.04 per cent of the total revenue expenditure during the years 1997–2000 while it was 3.66 per cent during the previous three years (1994–97). The simple point here is that with any fiscal crisis, the first to suffer would be maintenance items, which compound the problems faced by our assets languishing because of poor maintenance.

For appreciating where the axe fell the most following the fiscal crisis, the share of the revenue expenditure during the two years (2000–02) was separated⁸ and compared against the shares of each of these items for the entire reference period (1983–2003). Some relevant data is shown in Table 17.2.

This brings us to a very important point. The relative burden of expenditure cuts in a fiscal crisis falls on the expenditure on social sectors and development sectors, far more pronouncedly than it does on others. Salaries no doubt showed a decline on account of the extreme (though temporary) restraint exercised by the government on this item during the period.⁹ It may not be surprising that the share of general administration and on the legislative expenditure continued to grow as usual even during these lean years. It may be noted that the sharp decline in irrigation and public works are on the revenue side and hence not on account of capital expenditure. These are largely on account of maintenance and renovation. Similarly, the sharp fall in expenditure on the industry in revenue expenditure is also not on allocations of capital grants to public sector undertakings (PSUs) but more on expenditure for the traditional sector, incentives, and welfare measures.

Table 17.1
Profiling the Fiscal Crisis

<i>Item</i>	<i>Growth rate (%)</i>			
	<i>Average</i>	<i>Fiscal</i>	<i>Worth growth</i>	
			<i>Rate</i>	<i>Year</i>
	<i>1983–</i>	<i>crisis</i>		
	<i>2003</i>	<i>years</i>		
		<i>(1997–2002)</i>		
Revenue Receipts	14.48	8.19	1.07	1998–99
Revenue Expenditure	16.06	11.92	25.33	1999–00
Tax Revenue (Own Tax)	15.31	8.91	0.92	2001–02
Non-Tax Revenue	9.06	2.05	-17.56	2001–02
Central transfers (Taxes and grants)	13.10	8.77	-3.59	2001–02
Share of Central Taxes	12.95	5.33	1.81	2001–02
Grants from Centre	19.25	19.86	-23.28	2001–02
Tax Revenue (Own Tax + Central Taxes)	14.49	8.07	1.11	2001–02
Revenue Expenditure (Non-Developmental)	20.68	20.58	81.54	1999–00
Revenue Expenditure (Developmental)	13.57	7.45	24.29	2001–02
Capital Expenditure	10.53	-1.57	-11.92	2001–02
Revenue Deficit	30.32	40.71	81.52	2001–02
Gross Fiscal Deficit	24.86	20.32	56.11	2001–02
Debt Obligations	19.33	21.26	28.19	1999–00
Major Expenditure Items				
Debt Services	21.62	17.98	34.99	1999–00
Pensions	21.64	21.24	56.65	1999–00
Salaries	14.26	10.97	38.35	1999–00
Major Receipt Items				
Stamps and Registration	15.21	2.66	-9.12	2001–02
State Excise	12.64	6.81	-21.41	2001–02
Sales Tax	16.12	9.97	2.22	2001–02
Motor Vehicles	16.37	13.00	3.68	2001–02
Forest	7.98	-5.44	-19.50	2001–02

The important result that then follows is that fiscal crisis had hit services to the common citizen (education, health), on development (agriculture, industry) and on infrastructure maintenance (irrigation, public works) starkly. The cuts affected the political executive, the legislature, the general administrative services, the higher echelons of bureaucracy and the judiciary much less.

Table 17.2
Structure of Revenue Expenditure

<i>Item</i>	<i>% Share in total revenue expenditure (1983–2003)</i>	<i>% Share in total revenue expenditure (2000–2002)</i>	<i>% Change (+) increase (-) decrease</i>
Debt Services	16.81	18.37	+9.32
Pensions	13.07	15.18	+16.16
Salaries	38.70	37.10	-4.12
Social & Development Exp.	50.86	48.43	-4.77
Education	23.32	21.79	-6.59
Medical	7.81	7.36	-5.74
Agriculture	5.90	5.28	-10.41
Industry	2.11	1.72	-18.51
Irrigation	1.44	1.21	-15.78
Public Works	2.45	2.29	-6.60
Tax Collection	2.53	2.37	-6.56
Administrative Services	8.03	7.76	-3.32
General Administration	1.75	1.76	+0.40
Parliament & Legislature	0.38	0.41	+9.22
Justice	0.76	0.76	-0.28
Police	3.47	3.40	-1.88

Searching for the Proximate Causes of the Fiscal Crisis

The real causes of the fiscal crisis cannot of course be considered independently of the structural weaknesses underlying financial management in the state. A few sections in this chapter have been set apart to explore this.

In this section, the effort is to find immediate causes as revealed by the financial data available. A simple proxy analysis¹⁰ has been used whereby the year-wise contributions of various items of revenue and expenditure are assessed through an analysis of their deviations from long-term averages. Deviations of their annual growth rates from long-term growth rates¹¹ of items of revenue and expenditure are computed. They are normalised (scaling) to account for relative importance of each item. The weights used are the percentage shares of each item in the total revenue expenditure/receipts (as the case may be) over the reference period. The percentage figures obtained of each item are considered as a proxy for the contribution of that item to the fiscal crisis. For analysis of the expenditure data, positive deviations from the long-term average

growth rate is reckoned as being adverse, while for revenue data, negative deviations from the long-term average growth is reckoned as being adverse (data presented in Tables 17A and 17B in the Appendix).

This analysis on the expenditure side yields some interesting results, some quite obvious while others less obvious and even less discussed (Table 17A in the Appendix).

- Expenditure-side contributions are concentrated in the first three years of the FCY.
- Predictably, a high share (66.07 per cent) of the expenditure contribution to the fiscal imbalance happened in 1999–2000. This clearly has stemmed out from the pay revision. Again, since the pay revision affected almost all the sectors, the expenditure contribution is almost uniformly spread, with larger sectors like education and health accounting for more of the pay rise than others.
- The above is more explicitly revealed by the fact that salaries alone account for 44.8 per cent of the deviations during the FCY.
- Pensions accounted for 23.21 per cent of the imbalance. Thus pensions in 1999–2000 account for almost a quarter of the expenditure contributions to the fiscal imbalance.
- Another fact that has not been highlighted adequately is that 27.37 per cent of the expenditure contributions come in 1997–98, of which the expenditure contribution from rural development accounts for 21.8 per cent. This is so because of the fact that the allocations to local self-governments were increased at one stroke in 1997–98, following the transfer of one-third share to the local self-governments.
- Interest payment and servicing of debt has been generally on the rise, in 1999–2000, its share in the expenditure contributions was 10.03 per cent. This must have been the effect of past debt accumulation and high-interest, short-term borrowing in that year and the previous years. Only some share of this could have come in from the financing requirements in that year itself.

On the revenue side contributions, the following deductions emerge (Table 17B in the Appendix).

- Contributions from the revenue side were uniformly spread across the five years.
- These contributions were at the maximum in 1998–99 and 2001–02.

- Sales tax as in individual item contributed to 31.73 per cent of the imbalance in FCY. General adverse contribution from this source started and persisted through all the years of the fiscal crisis.
- In the year 1998–99, adverse sales tax collections contributed 25.45 per cent of the total share, while in 2001–02, it accounted for 43.35 per cent.
- In the first year of the FCY (1997–98), sales tax was the major factor contributing to the imbalance.
- Grants from the centre contributed 18.68 per cent to the total imbalance while the share of central taxes contributed 16.39 per cent. Thus, altogether, central transfers accounted for 35.07 per cent of the total adverse deviations.

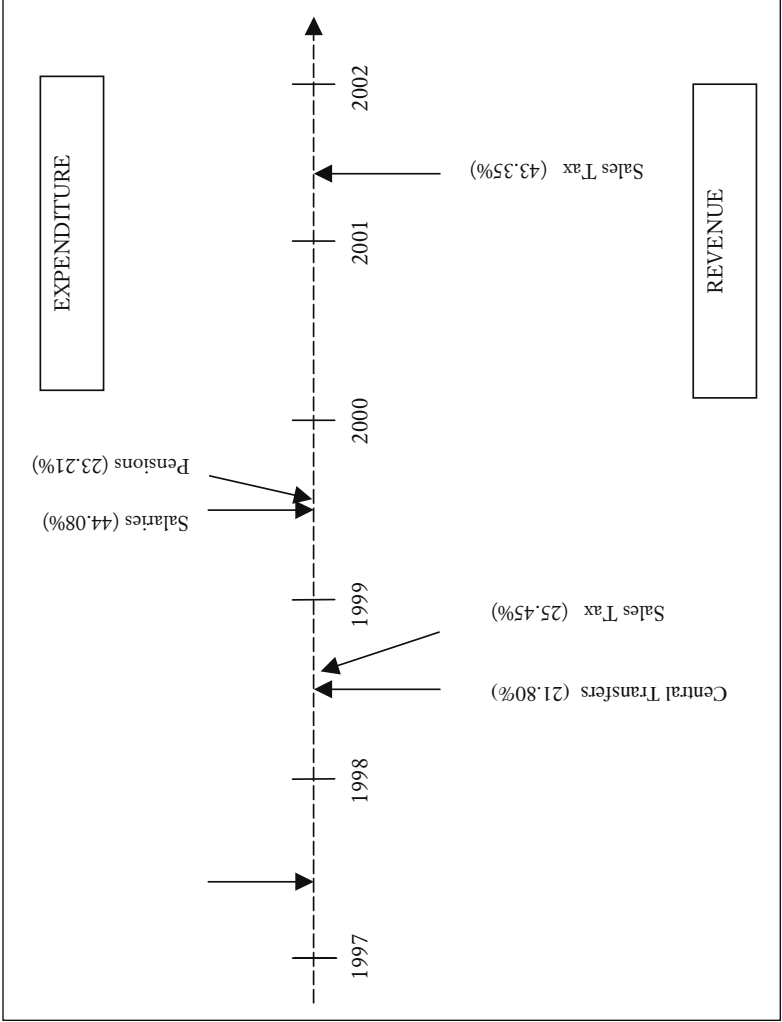
In the first slump (in 1998–99) in resources decline, central transfer accounted for 42.41 per cent of the total share while in 2001–02, the relative share of central transfers was only 14.71 per cent.

In Summary

- The Pay Revision (salaries and pension), as is commonly believed, was a major cause of the fiscal crisis.
- However, contradictory to what is normally believed by some, in Kerala the Pay Revision was not the only major factor that contributed to the fiscal imbalance. The extra load through the increased Plan outlay, particularly in 1997–98 on account of the increased devolution to local self-governments also played a significant role.¹²
- The slump in resource mobilisation in the state had two peaks, one in 1998–99 and the other in 2001–02.
- The decline in sales tax collections persisted throughout the FCYs and was a major reason that exacerbated the crisis.
- Central transfers (both share of central taxes and grants from the centre) declined particularly in 1998–99. With normal central transfers, the state would have been able to prevent the crisis from being protracted.
- In the beginning of the fiscal crisis (1997–98), poor sales tax collections were the major reason.
- In the next year (1998–99), decline in central transfers proved to be the major reason, worsening the situation and carrying the crisis forward.

Figure 17.1 shows the spread of adverse contributions from a few specific items. In short, on the expenditure side, the increased in Plan

Figure 17.1 Locus of Concentrations of Specific Adverse Contributions during the FCY



outlay to accommodate the devolution to local bodies followed by the Pay Revision in quick succession and on the revenue side, the decline in sales tax followed by the sharp fall in central transfers and the general slump in revenue collections, accounted for the fiscal crisis. In this respect, Kerala has been singularly unfortunate in getting caught in this concatenation of events that plunged it into its darkest period of its fiscal history had to be concentrated in the relative short period of the FCY.

OUTLINES OF A STRATEGY FOR FISCAL CORRECTION

‘... the situation may be dangerous, revenue expenditure hike leading to borrowings and in turn, borrowings leading to further revenue expenditure hike...’ (Rakhe, 2003). A study conducted on public expenditure management¹³ diagnosed the following major lacunae in the state’s financial management on the expenditure side.

1. Financial outcomes of budgets are not emphasised and there is no focus on maintaining sustainable borrowing levels in any given year.
2. Expenditure controls are inadequate, leading to unpaid arrears every year.
3. The government has little flexibility to vary strategic allocations, particularly as the proportion of Plan allocations in the total budget is gradually decreasing.
4. There is no process of reviewing the efficiency and effectiveness of expenditure.

Clearly, it is important to implement good financial management to address these lacunae. The above analysis suggests some policy options, some obvious, others not so obvious. However, in this chapter, only endogenous factors that are (at least potentially so) under the control of the state government are considered. The exogenous factors that reside in several structural dimensions of the federal–state fiscal relationship are ignored. As Anand et al. (2004) have noted,

The fact of the matter is that there were structural imbalances in the system right from the beginning. While the turning points can be related to some proximate causes like pay revision of employees or sluggish revenue growth because of a slowdown in the economy, the imbalances in the State Budgets have their origins in factors that are structural in character. Structural imbalance was inherent in the asymmetrical assignment of powers and functions, while the transfer system that was meant

to alleviate the asymmetry turned out to be a source of imbalance by generating incompatible incentives. Shortcomings of the transfer system weakened the incentives of the States to tap their revenue potential fully and exercise restraint in spending. They had, on the other hand, limited elbowroom for adjusting to shocks. Given this background and in the absence of a truly hard budget constraint that could put an effective cap on their debt, the States found it expedient to rely on borrowed funds even to meet their current expenditures.

The asymmetric federalism that exists in India, based on unequal powers and relationships in political, administrative and fiscal arrangements between states in the federation, directly impacts on the fiscal situation of the states. While this is a topic for discussion elsewhere, Table 17.3 (Government of Kerala, 2003) presents some interesting aspects of the fiscal situations of the centre and the states.

Table 17.3
Fiscal Situation—Centre and States

<i>Fiscal Indicators</i>	<i>(% of GDP/GSDP)</i>							
	<i>1973–74</i>		<i>1986–87</i>		<i>1990–91</i>		<i>2001–02</i>	
	<i>Centre</i>	<i>State</i>	<i>Centre</i>	<i>State</i>	<i>Centre</i>	<i>State</i>	<i>Centre</i>	<i>State</i>
Gross Fiscal Deficit	2.64	2.24	8.47	2.71	7.85	3.3	6.14	4.64
Revenue Deficit	0.36	0.18	2.5	0.24	3.26	0.93	4.36	2.64
Gross Primary Deficit	1.3	1.4	5.49	1.65	4.07	1.78	1.46	1.83
Gross Tax Revenue	7.73	5.29	10.3	7.85	10.54	7.84	8.15	8.21
Non-tax Revenue	1.7	3.18	2.48	4.18	2.33	3.85	2.95	3.59

The asymmetries have been examined in detail in Rao and Singh (2004) in the context of asymmetries in the design of the transfer system, transfers of the finance commission, state Plan assistance from the central sector and centrally sponsored schemes. However, the differential treatment accorded in the matter of central sector and centrally sponsored schemes deserves special mention. While many of the other asymmetries have a certain process behind them (either constitutional as in the case of the Finance Commission Awards or procedural as in the case of the Gadgil-Formula-based allocation), this is extremely ad hoc and purely discretionary in nature. In the years to come, this ad-hocism may be put to substantial political misuse given the fragile finances of many Indian states. As cautioned by Bagchi (2003), 'The Centrally Sponsored Schemes

[CSSs] should be compressed to only a few that represent truly national interests that the states may not be in a position to look after'.

Bagchi (2003) also stresses the point that bail-outs offered by the Union government in the form of debt forgiveness, rescheduling and special accommodation finally weaken the state's resolve to control debt and could indirectly spur it into improvident borrowing. He also observes that 'even fiscally irresponsible sub-national governments [*read states*] were able to obtain bailout from the centre because of their relationship with the ruling party (or coalition) at the centre'.

Given the federal structure, it is only natural that states like Kerala have reasonable grounds to complain about transfers from the centre. The state government's Memorandum to the Twelfth Finance Commission states: 'It can be seen... that while for all States the Central transfers went up from 36 to 38 per cent, in the case of Kerala, central transfers remained at a low of around 27 per cent of the total revenue receipts' (Government of Kerala, 2003). Table 17.4 extracted from the memorandum presents Kerala's position that it has been given a raw deal when it comes to transfers.

Table 17.4
Kerala's Fiscal Efforts
(as a % of Total Revenue Receipts)

<i>Item</i>	<i>Year</i>			
	<i>1999– 2000</i>	<i>2000– 01</i>	<i>2001– 02</i>	<i>2002–03 (BE/RE)</i>
All States Revenue deficit as % revenue receipts	26.02	22.4	22.1	17.2
All States own fiscal effort	62.06	59.7	60.38	55.8
All States reliance on Central transfer	36.04	37.3	38.28	38.6
Kerala's Revenue deficit	45.63	36.1	28.77	38.8
Kerala's on fiscal transfer	72.08	74.5	71.41	75
Kerala's reliance on Central transfer	27.92	25.2	28.59	25

POLICY OPTIONS

A good programme designed to improve expenditure management for containing fiscal deficits within sustainable levels should have the following objectives.

1. Estimating expenditure accurately and realistically, shifting emphasis from economy measures based on cuts in expenditure to one based on policy analysis and performance evaluation.
2. Focusing on spending that recognises the need for effective utilisation of existing capacity and improved service delivery.
3. Ensuring greater accountability and transparency through modern procurement, payment and accounting systems.

In the past, the thrust in public finance management was on resource mobilisation and, specifically, expenditure (Plan-based, in particular). However, it is only in the recent years that concerns like deficit control, debt limitation within sustainable levels and other concepts of financial stability have found their place on the centre-stage of discussions on public finances. Unfortunately, by the time such concepts began to be articulated, the fiscal crisis had already set in. The other aspect was that the political executive was unwilling to recognise tough budget constraints in expenditure. Budgetary allocations were considered as indicative limits, which could be exceeded for a variety of reasons, and not all of them the right ones either.

The starting point for any financial reform lies in shaping proper budgetary systems. 'The sad fact is that budgeting does not appear to be either an effective instrument of control or means of accountability. Most of the time, the concern is with processes and not with performance' (Nair, 2003). The immediate challenge is to restore the sanctity of the budget. A survey on budget preparation practices (International Monetary Fund, 1996) notes that usual practices to undermine the sanctity of the budget resorted to by governments the world over include overestimating the expected growth of the economy and underestimating interest rates and outlays, overoptimistic forecasts that inflate the revenue potential, creative budgeting that permits selected items to be kept off the budget, and strategic use of the budget projection through manipulation of the baseline. Budgetary practices adopted by successive state governments in Kerala are not devoid of such vitiating and pernicious practices. However, what is of concern is that with a state that can boast of the most vigilant opposition, press and public, such misdemeanours that end up eroding the sanctity of the budgetary process are never subjects of informed discussions.

Tax Reform

Tax reform has been an integral part of reform measures adopted in many countries. In Kerala, efforts to raise taxes afford substantial scope for

improvement, but it has to be seen in the context that the state's own tax/gross state domestic product (GSDP) was 0.078 in 2000–01 even as the all-state average was 0.062. 'The difference between all states' average and Kerala's is still over 0.016 indicating a persistent effort in this state to raise own resources. The decline from 0.091 to 0.078 in the case of Kerala has to be seen in the context of starting from a higher base in the late 1980s and the steep fall in prices of cash crops already referred to' (Government of Kerala, 2003: 9).

One of the important reasons impelling developing-country governments, embarking on tax reforms as part of broader fiscal reforms, has been the need to cut fiscal deficits through higher growth of revenues. It has been widely recognised that in India, tax reform is needed to improve the efficiency of resource allocation, to remove obstacles to economic activity, to minimise costs, and to improve the levels of equity in the system. The need to strengthen the resource base of state governments cannot be overemphasised. Given that tax effort in Kerala compares more than favourably with the efforts of other states and the tax-GDP ratio has been virtually stagnant for several years, it is all the more necessary to look into the structure of tax administration.

Discussions on sales tax reform have almost invariably recognised the urgent need to expand the tax base, rationalise the rate structure, and harmonise the rates horizontally. The simplification of the rate structure involves reducing the number of applicable tax rates, keeping exemptions to a minimum, and enhancing transparency by eliminating/merging multiple levies under different Acts. On the issue of prescribing floor rates for taxes, states have moved towards a broad consensus on the need to do so. However, specific tax rates have to be worked out. There are over a dozen different tax rates prescribed under the state's sale tax law, creating avoidable and undesirable complexity in administration. Almost all states recognise the need that inter-state competition in giving sale tax incentives for industrialisation should be avoided. Value-added tax (VAT) is considered as a major step in the reform of sales tax administration. The essential transition involved in VAT from a discrete unconnected tax network to an interconnected network could hold great prospects for Kerala. With Kerala's high level of tax compliance, many experts consider that VAT affords tremendous potential for raising revenues. However, the need for careful preparatory steps before full-fledged, state-level VAT can be introduced is universally recognised. Kerala has taken many systematic steps to introduce VAT.

In the area of stamp duty and registration on sale or transfer of land, there is greater consensus on the need for change. Across the world, the trend in reforms in this area has been to progressively lower rates while simplifying the administration of stamp duties. In 1999, the Government of Kerala had appointed a committee to propose a simplified system for fixing land values for realising stamp duty. The committee's report was processed and the process of fixing 'fair' values completed. However, several objections were raised, with differing degrees of merit. The result was that the new system could not be implemented. Many suspect that one of the reasons for the resistance to the proposed scheme is that standardising land values will seriously affect rent seeking by corrupt officials in the administrative set-up.

Planning for Non-Plan Expenditure: The Hard Way

A problem that bedevils almost all state governments is that there is little medium- or long-term planning of non-Plan expenditure. The only time detailed forecasts of non-Plan expenditures are made is to supply information required by successive Finance Commissions. These forecasts have a normative element for the purpose of devolution from the centre to the states. However, they are not translated into a reference framework for budget preparation in each subsequent year. Every year, a new exercise is initiated with a myopic focus on that year alone. One direct consequence of the absence of a reference framework is that maintenance expenditures on projects created in the Plan are not factored properly into an assessment of affordability. Maintenance expenditures are neglected as residual items. Managing non-Plan expenditure would have to begin with the recognition of all subsidies—explicit and implicit—offered by the government in various sectors. Except where services are rendered to the poorer sections of society, part of maintenance expenditure itself may be recoverable from the users in return for improved quality of service.

Economy measures to eliminate wasteful expenditure serve more to sustain a psychological sense of scarcity but hardly help to bring down expenditure in real terms. The scope of these economy measures now in force may itself have to be analysed. Furthermore, avoidance and short-circuiting of such orders through special exemptions are not infrequent. The key steps in the process of controlling non-Plan expenditure are as follow.

1. Identify and classify items of non-Plan expenditure.
2. Prioritise expenditure into (a) those that are essential; (b) where expenditure reduction is possible; and (c) where it is avoidable.

3. Reduce the items of non-Plan expenditure.
4. Completely eliminate avoidable expenditure in a phased manner.

Supplementary Demand for Grants: an Overused Constitutional Provision

Kerala, like many other states, resorts to the practice of formulating supplementary budgets twice or thrice each year. These supplementary budgets erode the basis of the resource assessments done while preparing the original budget. Though supplementary budgets are intended to provide a degree of flexibility to budget management, routine recourse to this mechanism distorts prudent financial management. Till such time as a better regime of financial management in place, it may be necessary to do away with the practice of adding to budgetary commitments through such Supplementary Demands for Grants.

Management of Contingent Liabilities: The Straw that could Break the Camel's Back

Contingent liabilities are the state's legally binding financial commitments where the state undertakes to pay liabilities on behalf of its agencies and institutions to their creditors, should there be default of payment on the part of such agencies or institutions. Guarantees by the government for loans and borrowings of PSUs are the largest source of contingent liabilities of the state.

In the current environment in which financial institutions operate, they are increasingly required to pay greater attention to non-performing assets. Therefore financial institutions are now more likely than ever to invoke government guarantee on loans defaulted by the government or its agencies. Even a fraction of these guarantees, if invoked, could plunge the state into financial crisis. In this background, control of contingent liabilities should necessarily be a main plank in the agenda for public finance reforms. These liabilities, at the level of state governments like Kerala, could take the form of guaranteed loans, price support schemes, and insurance schemes. Good budgeting means that the budget should transparently present these hidden risks associated with contingent liabilities and not spring surprises when these liabilities devolve on the government and force burdensome cash payments. It is a very welcome step that the government has enacted the legislation imposing ceiling on guarantees and published the list of guarantees issued by it in the Budget documents (Government of Kerala, 2004).

Non-Tax Revenues

Raising revenue through non-tax measures is generally considered an important policy plank for bridging fiscal deficits. However, the political overtones of decisions associated with this have often led many governments to shy away from any serious bid to tap non-tax revenue. Before devising a policy on the non-tax revenue front, there should be a proper understanding and analysis of hidden subsidies in the budget. It is only on the basis of such an assumption that the state can take a view on who these subsidies benefit most, whether they should be shifted to needier segments of the beneficiaries, and whether all of them should be continued as such. Hence, equity and efficiency of these subsidies should afford the basis for assessing non-tax revenues. This would be a much better and sensible approach as opposed to the conventional, top-down approach of using the fiscal stress that the state is experiencing as the starting point and then making ad hoc assessments of what each sector can contribute to the state's total non-tax revenues through user charges and fees.

Liabilities of the State and their Management

Kerala inherited a liability management system at the time of Independence but the compulsions to breach the budget meant that the proper tracking of liability had to be given the go by. The state government's appreciation of its liabilities is so weak that at no point in time does it know how much it owes on various counts to its creditors and suppliers. Thus, for instance, information on dues on account of land acquisition cases or of bills outstanding on account of Petroleum, Oil and Lubricant (POL) expenditure are all loosely distributed all over the place in different public offices! Over years, annual financial allocations are often used, just enough, to bring down the arrears of the previous year or years to some acceptable level where the state's creditors are kept at bay. This being so, in the current scenario, the perception seems to be that hardly any good comes from knowing the figures beyond a certain degree of accuracy! This casual treatment of the state's liabilities and the almost total absence of a tracking mechanism interleaved into the budgetary systems of the government, gives rise to increasing ad-hocism in budgetary allocations. This, in turn, offers a perverse incentive for departments to breach the

budget at will, knowing that liabilities initiated or incurred in one year can be settled in any preceding year. What is often missed by analysts is that budgets are not breached so much by overdrawing above the locations, but by incurring expenditure for which money simply has not been provided in the budget, with the knowledge that sometime in the future, these liabilities will all be paid for.

Historically, the worst manifestation of this is seen in the budgetary allocations for public works in departments like the public works, irrigation and forest departments. One entire volume of the Works Budget (part of the budget books) approved by the Legislative Assembly details the names of those schemes where administrative sanction has been accorded with their budgetary allocations. These allocations interestingly are often a small arbitrary fraction of the actual cost of the project with hardly any reference to the project schedule or actual requirements. The prime concern here is to distribute the overall allocation for a department to as many projects as possible; the more the entries in this book and the more representative it is of the needs of the elected representatives, the better the political acceptance that the Works Budget obtains. A second volume of the Works Budget lists schemes with token provisions, kept there with the declared purpose of getting the sanction of the Legislature, so that later these works can be allocated some resources—a process that is known for its ad hoc nature.

Both the Union and state governments follow a cash-based system of accounting. In these systems, liability accounting is secondary to the final presentation of accounts, unlike in an accrual-based system where the balance sheet and income statements—the centre-pieces of the financial reporting—are derived from the liabilities of the entity as much as they are from its assets. In the foreseeable future, Kerala like all other states is likely to continue on a cash budget and accounting system. However, a recent Supreme Court judgement directing urban local bodies to switch over to accrual accounting system may perhaps pave the way for subsequent reforms in state governments as well.

Therefore, there are hardly any informed discussions in the legislature on unmet liabilities. Even when they do get discussed, the issues never get any prominence. Consequently, public awareness of this unfortunate side of financial management—a legacy of successive governments—remains at a minimal level. Therefore, one immediate step that has to be taken towards establishing financial control is to design a liability management system, which should be updated systematically and the status of liabilities at any given point be made publicly available.

Debt: Some Lesser Known Dimensions, and Some Hard Choices

The overall borrowing by the States is constrained due to a number of reasons. First, States are allocated borrowing limits under the market borrowing programme in consultation with the Planning Commission. Second, loans from Central government are also predetermined as part of Plan assistance. Furthermore, there are limits on WMA and overdraft. . . . The magnitude of the public account as a source of funding the deficits is by and large beyond the control of the state governments. To a limited extent, States can influence the collections under small savings through aggressive small savings drive and special incentives have been given by some States to increase the small savings mobilised in the State. In sum, therefore, a hard budget constraint operates at the State level. (Thorat and Roy, 2001)

Given this assessment that state governments do not have much leeway in the matter of debt, why is it that in many states, including Kerala, there is a runaway jump in the debt, particularly in the last decade?

As the manager of the public account, the state government plays the role of a banker. But, Kerala, in reality, conducts regular banking operations as part of its public account! This means that the state conducts significant deposit mobilisation operations, allows accounts to be opened, runs a passbook system, pays interest significantly higher than what is available under the RBI interest regime for banks in general, and even has a generous incentive scheme for treasury employees who raise such funds. In the process, of course, there are no regular credit operations except to finance the expenditure of the government and its agencies! Welfare funds, public sector institutions, cooperative societies and individuals can all avail of this scheme. Interestingly, whether governments have the authority to conduct such banking operations outside the banking regulations of the RBI itself has never been the subject of any detailed examination.

Second, in the public debt portfolio of the government, it maintains significant balances in the PF accounts of its employees. Each time, there is a hike in the salary, the balances are credited (by diktat) into these accounts for specified periods. These deposits earn interest and accumulate over the period that they remain with the government in the public account. While the government uses such deposits to cushion the liquidity (funds) requirements for events like the Pay Revision and release of Dearness Allowances to employees, they undermine liquidity management for two reasons. First, while remittances into these accounts are

certain and can be anticipated reasonably accurately, disbursements (both time and quantum) out of these accounts are unpredictable. It depends, *inter alia*, on the investor confidence in the treasury as well as the returns available in the market. This forces the government to borrow well over the average rate of returns available in the market in a bid to retain them over longer periods.

Third, in the past, departments and government agencies were allowed to maintain accounts, into which unspent balances could conveniently be credited. Thus, the government could show expenditure from the consolidated fund, without having to actually pay up the cash. This affords a facile method of carrying over unspent balances from year to year through the public account, without—on the face of it—having to admit any expenditure cut. These balances also serve to show an inflated availability of resources through the public account for the next year. Very few governments make enough provision for paying these amounts in the following year's budget. While this practice has been done away with as part of the fiscal reform measures introduced by the government, there are still several agencies like local bodies, autonomous institutions and PSUs who are allowed these accounts for (quite reasonable) practical considerations. Furthermore, instruments such as Letters of Credit for public works, forests, and irrigation departments and cheques issued by local bodies (with a validity beyond the close of the financial year) are also ways to transfer expenditure from one year to another through the public account.¹⁴ The question of fixing a statutory limit on public debt of governments—both central and states—has been discussed often (Reserve Bank of India 1997). Article 293 (1) of the Constitution of India allows state legislatures to fix limits on borrowing within the territory of India upon the security of the consolidated fund of the state and on guarantees offered by states. The RBI has recognised the danger and magnitude of the financial crisis that could hit states on account of the inordinate growth of contingent liabilities. The RBI has been encouraging states to impose a limit on guarantees.

Articles 292 and 293, in the case of the centre and the state, respectively, do allow these governments to prescribe limits on borrowing as well as on the guarantees issued by them for facilitating borrowing either by themselves or by their agencies. As early as in 1957–58, the Estimates Committee of the Parliament on Budgetary Reforms felt that it was not necessary or advisable to introduce any legislation, as government borrowings had the tacit approval of the legislature when the deficit financing indicated in the budget was approved by Parliament at the time of the

approval of the budget each year. Successive committees and the Ministry of Finance have been of the view that, apart from practical difficulties of setting correct limits, setting up statutory limits may not be much of a safeguard either. However, it is time to revisit this hypothesis now that several states have been found reeling under the effect of inordinately high levels of debt, and their financial survival may itself depend on prudent practices and self-control. This discussion is relevant given the need for fiscal consolidation through lower fiscal deficits and sustainable public debt. Burgeoning repayment and service obligations continue to eat away resources that could otherwise have been used for productive investments. Debt-servicing commitments have, especially in the recent past, arisen because of the increased dependence on borrowing to finance fiscal deficits. Debt, if utilised for capital investment (especially to build infrastructure), has been recognised as an instrument for economic growth. Hence, a blanket restriction on the power of the state to incur debt is antithetical to considerations that should dictate the state's economic development. It will therefore become necessary to analyse the composition of the outstanding debt of the state. Following such an analysis, the state can devise procedures to selectively restrict debt that does not essentially contribute to the overall economic growth and consequently does not help generate revenue flows in the future for the state. On the basis of a professional study, caps on debt of varying classes can be proposed.

It may be necessary to impose such voluntary restraints and devise good practices where the relaxation of such norms has to be done after informed debate in the legislature. While, finding such means and devising such procedures may not be difficult, in the absence of the required political will to implement them, these may end up as chapter enactments, much like the excess grants approval procedure now in place.

MILESTONES IN FISCAL CORRECTION IN KERALA

Fiscal reforms and the Asian Development Bank (1998)

The government's first attempt to detail a comprehensive approach to management of the finances took place in the late 1990s. The concept chapter submitted by the Government of Kerala to the Asian Development Bank (ADB) as early as in 1998, outlined the strategy, through seven measures.

1. Formulate general measures for control of fiscal deficit.
2. Take steps to reduce non-Plan expenditure.
3. Devise plan for management of contingent liabilities.
4. Set limits on public debt.
5. Adopt measures to augmentation of non-tax revenues.
6. Rationalise sales tax administration.
7. Augment stamp duty and registration.

Practically, the entire gamut of fiscal reform measures initiated by the state government, since 1997, stemmed from the groundwork done as part of the loan negotiations with the ADB. This was later supplemented by the initiative of the Union government on the basis of the recommendations of the XI Finance Commission, which recommended that states should draw up a Medium-Term Fiscal Framework Programme (MTFRP) and even provided for incentives for deficit reductions.

Medium-Term Fiscal Reforms Programme (MTFRP) (2001)

The MTFRP was originally drawn up in 2001. It envisaged the reduction of revenue deficit to zero by the end of the financial year 2004–05. Subsequently in 2001–02, the government exchanged a letter with Government of India on shared fiscal goals and objectives. The two prongs of the MTFRP drawn up in 2001 were rationalisation of expenditure and augmentation of revenue generation. The strategy included shift in the expenditure mix to give emphasis to developmental and productivity-oriented activities, increase allocations for maintenance and running of government schemes, improve key infrastructure to attract higher private investment and improve quality of existing public assets. The strategy aimed also to contain the fiscal deficit to 1.5 per cent of GSDP, contain interest payments to 20 per cent of revenue receipts and contain increase in interest payments (in absolute terms) to 10 per cent per year.

However, the government could not achieve the financial targets envisaged in the MTFRP (2001). But, this could perhaps be the difficulty, per se, in adopting frameworks like these, mostly developed in affluent countries (Schick, 2001). It may be necessary to revisit many of the targets set in the MTFRP, check out the assumptions behind the projections thoroughly, and—above all—arrive at this through a consultative process with the departments concerned. Even as this is done, the budgeting process will have to move systematically towards an output-based approach.

Kerala experimented with some kind of a performance budget in the 1970s, but this exercise, though not given up as yet, did not get the attention or importance it deserved. Kerala will not be able to put in place an elaborate budget system around performance and outputs given the enormity of the changes required and the volumes of data gathering that has to precede this at one stroke. Nevertheless, the state has to take the first steps without losing more time.

Revenue Augmentation and Expenditure Control Measures Proposed in the White Paper (2001)

The White Paper was not simply a presentation of the fiscal crisis and the problems but also outlined a package of measures (of different levels of complexity) for nursing back the state's fiscal health. It suggested that these measures be implemented after careful discussion. It proposed measures for additional resource augmentation to the tune of Rs 1,435 crore and savings through expenditure management measures to the tune of Rs 975 crore.

The government did initiate some of the suggestions in the White Paper through an order in January 2002. However, this led to a widespread agitation of the employees, which lasted nearly two months. As a part of settling the agitation, some of the benefits to government employees were restored. Subsequently since, most of them were restored. Salary figures, which increased over 34 per cent in 1999–2000 on account of the Pay Revision registered negative increases of –0.25 per cent and –6.47 per cent in 2000–01 and 2001–02 as can be seen from these figures on salary expenditure of the state, the measures did afford a much beleaguered government some relief during the fiscal crisis.

Fiscal Reforms through the Modernising Government Programme (MGP) (2002)

The MGP,¹⁵ a governance reform project of the state, identifies the deterioration in the public finances in Kerala and lists out desirable outcomes of the reform process. The shortcomings in the public finances of the state, as identified during the design of MGP, are given below.

1. Fiscal policies that have been unsustainable over the years, with deficits running at inordinately high levels, have progressively led to the breakdown of budgetary mechanisms.

2. Easy recourse to debt to finance current expenditure has resulted in burgeoning debt servicing charges that take away resources for expenditure on public services.
3. The tax administration machinery is not sufficiently strong to ensure high levels of tax compliance. This naturally results in a loss of revenue as against the potential in a high consumption state like Kerala.
4. Realisation of non-revenues (fees and user charges) is low, often with little relationship to costs of service. Reduced rates are often fixed on considerations that are not often guided by serving interests of poor and the marginalised.
5. Delayed start of the budget cycle on account of a vote on account leaves only eight to nine months for expenditure planning.
6. Expenditure is incurred with the limited focus of one financial year, preventing a project-based approach to activities.
7. The government accounts are not finalised in time nor are activities audited within a reasonable period of incurring the expenditure. Therefore, delayed accounts detract from their immediate relevance. Corrective procedures based on feedback become impossible.
8. Audit reports are delayed and lose much of its relevance to expenditure management, serving only as a post facto tool.
9. Financial management is also handicapped by the fact that is no overarching legislation as envisaged under Article 283 of the Constitution and as a result procedures are dispersed in various codes and orders.
10. Expenditure control does not have the backing of effective internal audit mechanisms.
11. Even though considerable delegation and decentralisation has taken place to local self-governments, the potential to raise resources remains weak or poorly used.

The MGP visualises a process of transformation of the public finances leading to a state defined below.

1. Sound public expenditure management practices should be in place, consistent with social and economic goals of Kerala to control deficits.
2. Debt controlled as part of the sustainable fiscal policy will result in reduction of debt servicing costs and free resources for immediately relevant goals.

3. More revenue is realised through simplified systems in the wake of the introduction of VAT.
4. Reforms will result in a rational, non-tax administration, consistent with the equity goals set by the government.
5. Budget cycle and procedures are systematised avoiding the need for invoking the vote on account provisions in the Constitution, leading to systematic expenditure planning.
6. Perspective and rolling plans help do away with the uncertainty of budgetary allocations that surround activities from year to year.
7. Availability of audit and accounting information feeds into the expenditure cycle leading to better quality of expenditure. Accounting and auditing procedures and manuals are focused on achieving this purpose.
8. Concurrent audit in the government for selected activities in each department to be commenced.
9. Internal audit functions should be defined, with reporting format prescribed for major activities in each department.
10. A Public Finance Management Act will address the issue of definitions, procedures, responsibilities, and functions of various revenue collection and spending units in the government.
11. There will be better resource mobilisation through tax mapping, credit enhancement, and user charge enhancement for local services with proper differentiation of rates for the poor.

Fiscal Responsibility Act (2003)

One of the major achievements of the state government in the area of public finance reform is the enactment of the Kerala Fiscal Responsibility Act, 2003.¹⁶ The Act prescribes some well-considered measures for fiscal transparency, including the following.

- Minimise official secrecy in the preparation of the annual budget, promise more open disclosure at the time of presentation of annual budget.
- Reveal the significant changes in the accounting standards, policies and practices affecting—or likely to affect—the compliance of the prescribed fiscal indicators.
- Reveal all outstanding contractual liabilities, revenue demands raised but not realised, committed liability in respect of major works and supply contracts, losses incurred in providing public

goods and services, off-budget borrowings and contingent liabilities created by way of guarantees having potential budgetary implications.

The Act also provides for setting up the Public Expenditure Review Committee jointly appointed by the government on the recommendation of the selection committee consisting of the chief minister, finance minister and the Leader of the Opposition with powers to submit a review report giving full account of each item where deviation from the fiscal target has occurred in the previous year. It also provides that the state's finance minister shall make a statement in the Legislative Assembly explaining any deviation in meeting the obligation of the government under this Act.

However, given the experience with such legislation across the world, experts caution that unless the right kind of determination and co-operative spirit is displayed by the parties, the legislation could remain toothless, with the government going through the motions in a perfunctory manner.

Ceiling on Guarantees Act (2003)

Yet another milestone in Kerala's fiscal reforms is the enactment of the Kerala Ceiling on Government Guarantee Act, 2003.¹⁷ The Act provides that the total outstanding government guarantees as on the first day of April of any year shall not exceed Rs 14,000 crore. It also provides that the government shall charge a minimum of 0.75 per cent per annum as guarantee commission, which shall not be waived under any circumstances with provision to enhance the risk depending on the default risk of a project. The guarantee given shall not be extended on the expiry of the guarantee period unless the borrower had paid, in full, the guarantee commissions due to the government. It makes it obligatory on the part of the government to constitute a fund called the Guarantee Redemption Fund through a notification in the Gazette with the guarantee commission forming the corpus of the fund.

Even in this area, the experience of other states in India proves that even with a simple majority in the Legislative Assembly, the cap on guarantees has been relaxed several times without much demur. Often this goes unnoticed. Kerala has now a singular opportunity through this legislation to prevent indiscriminate recourse to debt and in the process bind coming generations to the profligacy of the current generation.

ANNUAL PLANS: THE PROVERBIAL SCAPEGUATS FOR ALL FISCAL WOES

Before concluding, it is necessary to look at what seems to have become the easiest option available to any government faced with a fiscal crisis. The magic mantra seems to be to squeeze the Plan and save some funds for financing the non-Plan side. This seemingly easy option needs to be understood in its entirety before being endorsed as any kind of solution to a state's fiscal problems.

The 1990s ushered in a new phase in the approach to fixing the size of the Annual Plans of states each year. Most governments like to flaunt the size of their Annual Plans as a measure of their commitment to the state's development; it was only in the 1990s that the exercise of fixing the size of the Annual Plan began to done with an imprudent abandon. A trend, which had caught on in the early 1990s as a fanciful political imperative, assumed dangerous proportions towards the latter part of the decade. Except for a few aberrations in the 1970s and the 1980s, which saw the growth in the size of the state's Annual Plan breach the 20 per cent mark, the average growth rate of the size of the Annual Plan has stayed within the 12 per cent mark. Even the aberrations, which resulted in sharp rise in the Plan growth in any one year, were followed by years where the size of the Annual Plan was quickly restored. Normally, such aberrations coincided with a change of government following an election or in the year immediately preceding the elections. However, for the period of five years from 1993–94 to 1997–98, the state has had one continuous growth phase registering an unsustainable (as was revealed subsequently) growth of 24 per cent in its Annual Plans. In 1997–98, when the state went in for financial transfers to local self-governments in a big way, the growth rate was as high as 32 per cent. But the most dangerous aspect about it was that this increase was made at a time when the state's Balance from Current Revenues (BCR)¹⁸ registered negative balances or very modest positive balances (hardly anything to justify the huge Plan size during the same period). During these five years, the cumulative contribution from BCR was Rs 85 crore. During the same period, the grants to finance the Annual Plans amounted to Rs 1,918 crore. Against a total Plan expenditure of Rs 9,661 crore during the same period, it meant that the state had borrowed Rs 7,658 crore to finance the Annual Plans.

But the era of deficit financing of Plans had begun. At around the same time, almost all states that had access to the newly opened financial regime

in the early 1990s found it an exciting period of vying with each other to devise ingenious methods to creatively access these markets for financing expenditure in the name of development through Annual Plans. Kerala did not want to be outdone in the process. Credit was availed of from all available sources—cooperatives, welfare funds, national savings, small savings through the state treasuries, PFs and later through Special Purpose Vehicles created for diverting resources borrowed for some other ostensible reason.

In 1997–98, when the government took the decision of transferring one-third of the resources to local bodies, it was hailed (and rightly too) as the most momentous step in the history of India's decentralisation. However, what was not realised or perhaps under-appreciated was that this massive transfer involved little sacrifice from other departments (at least in the short run). That is to say, budgetary transfers to local bodies were not accompanied by reduction of funds allocated to various departments. An easy and painless exercise, no doubt, but the exigency of coalition politics suggested this as the easy solution, without any department (read minister or political party) losing in 'absolute terms' in comparison to pre-decentralisation allocations. The gamble (perhaps not carefully thought through) was that once local bodies settled in with their share of the total Plan, in successive years the new relative shares would continue to be undisturbed.

Unsustainable Plan size is a major factor that has contributed to the fiscal stress experienced by the state. Fiscal stress caused by huge Annual Plans cannot be reduced overnight. Annual Plans have come to be regarded as the commitment of a government to the state's economic and social development. There are some real issues here too. Kerala needs some immediate investments in infrastructure to open it up for economic growth. At this point in its history, the state cannot realistically hope to see the critical level of investments come in solely from the private sector. Many opinion leaders in the state regard private infrastructure projects that are financially viable on user charges with some amount of suspicion. There is a strong section of the intelligentsia, who have definite ideological positions backed by equally strong sections in the media who see such investors as the face of a capitalist culture that wants to profit on public space and needs. Therefore, the government will have to continue to play a vital role in building and sustaining the state's infrastructure, be it roads, ports, or highways. Second, the state needs to sustain the social infrastructure that it has built and qualitatively upgrade it. Here, historically, the role of the private sector has been well established; but when it comes to

basic needs like health and education, the government can ill afford a decision to leave the interests of the poor and the marginalised to the private sector, operating by and large on profit motives. Added to this, the state is not as yet comfortable with the idea of subsidising private sector costs for the poor through alternatives like health insurance or educational loans. All this implies that the desire to go in for large Plans is unlikely to be moderated in the short run.

This also means that governments (that come into power with a five-year life in sight) have to be unusually bold to budget Plan allocations for various schemes and departments, purely on grounds of affordability. Most governments are likely to allow actual reduction in Plan sizes towards the end of the year—by allowing the Plan to starve itself on a restricted diet of resources! They would scarce want to be seen as not being 'pro-development'. Besides, weeding out Plan schemes in a systematic manner would have clear implications on the human resources available in each department. It would necessitate various measures beginning from rearranging existing manpower in departments to freezing manpower intake into the departments till such time as stable finances allow the utilisation of manpower found surplus in the short run. When each department focuses on the essential, begins to order their priorities systematically, and proceeds to deliver better quality services, there could be an unintended and unexpected effect to begin with. At least in the short run, the new approach may call for more (and not less) investment to handle the accumulated deficits (maintenance, consumables, etc.). So unless a government set its sight on a long-term perspective and displays an informed appreciation of the need for fiscal balance, any drastic reduction in Plan sizes is unlikely.

Unsustainable and excessively large Annual Plans no doubt make good financial planning difficult. Their effects are manifested in the short run on account of the immediate pressure they create on the exchequer. No doubt, public finance experts like to talk about problems resulting from huge non-Plans and budgetary imbalances too. However, the incremental financial fatigue that builds up and the consequent pressure on the exchequer transferred on to the non-Plan side are generally not very visible. The process by which they build up over time often gets ignored. Therefore, a few dozen schools or new courses in colleges, or a few more batches of students in existing courses, a handful of new primary health centres, to name a few, taken up under the Annual Plan, can all go unnoticed or ignored. But they do add up with severe cumulative implications to the non-Plan. Against the compulsions of parliamentary democracy, as

practised in the states, the question that is most conveniently asked is how a few crores or lakhs can matter against a total budget of the order of 15,000–20,000 crore.

This is not intended to convey the idea that reduction in Plan size is a panacea for all fiscal problems. Some (the view taken by finance managers of the Union and state governments) advocate a plan holiday as an ultimate solution. Plan holidays or drastic Plan reductions, no doubt, will offer a reprieve to a much-beleaguered exchequer but it would be erroneous to view this as a solution to fiscal problems of a state. In the absence of a well-devised set of budgetary reforms, these measures merely give some breathing time. It is only a matter of time that liabilities (both explicitly tracked and those that are not tracked) will continue to accumulate and would breach the fragile and poorly devised budget once again.

Making cuts in the Plan expenditure affords a seemingly easy solution to ease pressure on the exchequer. However, this is short-sighted and ignores the fact that Plans are still the best instruments available with governments to initiate policy changes, particularly those that impact the poor and those that are vital to economic growth. Governments shape their sectoral priorities through the Annual Plans.¹⁹ A worse side of the approach in cutting down on Plan expenditure is that this helps governments to skirt the issue of reductions in the non-Plan size. Non-Plan expenditure reflects the 'stock' of financial liabilities or commitments accumulated by a government over the years. It is convenient for governments to ignore hard options and resort to the easier option of effecting cuts in the Plan size. Hard options might include restructuring and resizing the shape and size of the government workforce, prioritising expenditure and eliminating waste. Changes for these require an extraordinary degree of commitment, patience and determination.

CONCLUSION

Table 17.5 brings out the comparative fiscal positions of 14 selected non-special-category states.²⁰ Table 17.6 summarises the position of Kerala vis-à-vis the other selected states. In the case of mobilising taxes in relation to the total revenue expenditure, Kerala continues to remain third in terms of ranking through the period 1990–2002. But, in the case of all other parameters, Kerala remains at the bottom of the list. The ratio of revenue deficit to gross fiscal deficit is considered the best indicator of how much the state resorts to borrowing to finance current expenditure; on this front, Kerala ranked 13th in the list of 14 states. In 2000–01, Kerala and Maharashtra were the only two states whose revenue deficit

Table 17.5
Comparative Fiscal Position of Selected States
(Data from Survey of Budgets by RBI)

States	Revenue Deficit/Gross Fiscal Deficit (%)			Non-Developmental Expenditure/Aggregate Disbursements (%)			Non-Developmental Revenue Expenditure/Revenue Receipts (%)			Interest Payments/Revenue Expenditure			State's Tax Revenue/Expenditure			Non-Tax Revenue/Expenditure								
	90-95	97-98	00-01	90-95	97-98	00-01	90-95	97-98	00-01	90-95	97-98	00-01	90-95	97-98	00-01	90-95	97-98	00-01						
	Aug.			Aug.			Aug.			Aug.			Aug.			Aug.								
Andhra Pradesh	11.5	29	24.8	49.2	24.2	27	29.9	30.7	30.5	34.2	40.1	43.8	11.8	14.8	17.2	16.4	47	48.9	49.9	45.7	15.5	12.3	13.5	11.9
Bihar	51.3	26.9	58.1	60.6	31.8	37.3	35.2	36.8	42.1	43.8	54.3	54.6	18.1	17.1	17.7	16.5	23.5	26.7	22.6	20.5	12.3	4.4	10.9	5.6
Gujarat	11.3	32.1	53.3	78.9	22.9	25.3	27.3	23	30.6	33	41.4	39	14.5	15.5	16	14.2	57.9	54.3	46.6	41	18	18.3	16.7	15.2
Haryana	14.1	63.8	55.6	26.8	34.6	42.1	35.5	34.9	40.9	55.3	50.3	47.4	12.3	12.4	19.5	20.8	50	35.8	50.6	60	32.9	39.8	18.1	20
Karnataka	11.2	17.2	54.4	44.1	24.5	28.8	30.3	28.9	30.9	33.7	41.3	38	11.1	12.8	13.2	14.3	58.6	58.9	50.8	54.2	12.7	11.6	10.6	9.9
Kerala	44	46.5	79.9	81.2	31.4	32	39.1	41.9	41.8	43.3	62.7	62.5	14.8	15.6	16.9	19	52.2	54.6	44.9	49.4	7.5	6.7	4.6	5.5
Madhya Pradesh	10.1	25.8	75	48.6	23.9	27.3	29.3	31.6	29.3	34.3	39.7	39	11.9	14.2	13.3	16.1	37.3	38.9	35.9	37.6	19.9	17.2	15.3	11.5
Maharashtra	8.8	40	36.5	87.3	25.6	28.4	39.7	31.7	31.9	38.4	49.6	49.7	11.3	12.7	16.5	14	59.4	59.9	58.4	52.7	18.6	15.9	13.3	15
Orissa	22.4	50.2	68.7	57.9	26.4	34	30.6	37	35.8	48.4	49.1	58.4	18.4	23.3	14.6	25.9	25.7	25.7	20.1	24.7	11.9	9.8	8.5	7.8
Punjab	45.9	59.9	85.4	59.8	33.7	39.5	47	46.7	50.2	57.4	74.8	69.6	16	23.6	25.9	20	47.1	38.9	38.7	41.8	20.5	30.1	23.2	25.1
Rajasthan	3.4	22.8	67.9	61.1	26.9	28.5	36.4	37.8	34.7	42	58	53	14.9	21.1	21	22.2	35	40.2	33.7	35.3	20.2	15.2	11.7	11.2
Tamil Nadu	72.3	64.3	81.8	67.7	22.4	27.6	35.2	35	28.8	34.4	47.4	45.6	9	11.8	13.1	14.4	52.5	58.1	52.7	56.5	8.6	7.5	6.5	7.9
Uttar Pradesh	34.2	61	65.3	61.8	31.3	37.3	39	41.6	44.3	55.8	62.6	61.3	16.4	21.1	22.8	24	32	31.5	32.7	35.4	11	5.8	7	6.3
West Bengal	52	57.2	79.6	69.4	28.9	34.8	35.9	36.5	38.8	51.8	78.7	66.9	15.8	21.3	21.4	23.7	45	39.9	26.2	26.8	4.4	4	3	5.5
Non-Special Category States	29.8	41.7	60.1	61.1	27.3	31.4	35.1	34.4	35.6	41.4	51.4	50.1	13.6	16.4	17.7	18.1	44.9	46.5	42.1	43.1	14.8	13.1	11.2	11.2

Table 17.6
Relative Rank of Kerala in Selected Fiscal Indicators

	<i>Average</i>			
	<i>1990-95</i>	<i>1997-98</i>	<i>1999-2000</i>	<i>2000-01</i>
Revenue Deficit/ Gross Fiscal Deficit (%)	10	8	12	13
Non-Developmental Expenditure/ Aggregate Disbursements (%)	10	12	11	12
Non-Developmental Revenue Expenditure/Revenue Receipts (%)	14	14	13	14
Interest Payments/Revenue Expenditure	10	12	12	12
State's Tax Revenue/Revenue Expenditure	8	6	7	8
Non-Tax Revenue/Revenue Expenditure	10	10	8	11

Source: Data from Surveys of Budgets by RBI.

made up over 80 per cent of the total fiscal deficit. Contrast this to states like Karnataka and Tamil Nadu, who have weathered the Pay Revision years and managed to reverse this trend significantly.

In 2002-03, the share of revenue deficit in Kerala's fiscal deficit rose to 82.61 per cent from a marginal drop to 79.70 per cent in 2000-01. Clearly, the state is meeting its budget through excessive recourse to borrowing. How long can the state continue to sustain this level of borrowing to finance current expenditures? Table 17.6 is suggestive of the precarious position of the state's finances and points to its persisting weaknesses. Table 17.7 shows how both the revenue deficit and fiscal deficit remain at an unacceptable level as a ratio of the GSDP. Above all, the government has to be careful that it is not simply borrowing its way out of the fiscal crisis—a short sighted approach that may help emerge out of the liquidity crisis in the short run, but does not really improve the state's financial management.

Table 17.7
Revenue and Fiscal Deficit

<i>Year</i>	<i>1997-98</i>	<i>1998-99</i>	<i>1999-2000</i>	<i>2000-01</i>	<i>2001-02</i>	<i>2002-03</i>
Revenue Deficit/ SDP	2.27	3.61	5.80	4.51	3.28	4.53
Fiscal Deficit/ SDP	4.87	5.35	7.25	5.56	4.12	5.49

The data indicates the almost relentlessly unyielding weaknesses in Kerala's current public finance position. But now, Kerala has the chances of staging a significant fiscal recovery. The fiscal crisis, harrowing as it was for the state, afforded it an opportunity to take momentous reform measures. A few important and well-thought-out steps have been taken; the immediate liquidity crisis is over. With plenty of money for borrowing in the market, the state can easily succumb to the temptation of indiscriminate and imprudent borrowing once again. The finance managers of the state can ill afford to let the situations favourable for another crisis to emerge. The policy measures enacted—particularly the Fiscal Responsibility Act, 2003, and the Ceiling on Guarantees Act, 2003—are bold steps. However, international experience suggests that they are difficult to implement without careful preparatory groundwork. Budgetary reform takes a minimum of two years. The proposed measures of correcting the budget cycle, multi-year budgeting, switching to appropriate output-based budgeting techniques and resource envelope are all still to materialise.

It is often said that the ravages of war hit the poor, the children and the destitute most. As seen from the discussion above, the sectors that impact the common citizen suffers the most in a fiscal crisis. It is only sustained efforts that can prevent a relapse of the fiscal crisis in the state.

The analysis of deviations affords a rough and ready method to assess the contributions of each item over each year. The significance of this approach lies in the fact that it does not lay undue emphasis on the recovery in any area in one year on the simple basis of sharper growth rate (in the case of revenue) or sharper decline rate (in the case of expenditure), but tries to relate it to deviations from long-term trend values. What is important is that this analysis focuses on how quickly a particular factor helps to narrow or widen the gap between the current rate and the long-term (trend) growth rate for that factor. To illustrate: a 25 per cent growth rate in excise revenue against years of extremely poor revenue collections in three previous years would not give an idea of how well this source is doing relative to its potential to contribute to the revenues of the state. It might simply mean that there has been a sharp or commendable recovery in that particular year.

Each deviation is weighted/scaled on the basis of its contribution to the overall fiscal (revenue/expenditure) totals. Therefore, the relative importance of the various sectors is not lost sight of. Thus a 30 per cent growth rate in an item like revenues from forests would be less helpful to the state in its fiscal recovery than a 0.5 per cent growth rate in sales tax revenue. Conversely, a higher contribution of any one factor in any year does not mean that that there has been no growth (for revenues) or reduction (for expenditure) in that factor in that year.

Table 17A
Revenue Expenditure (Scaled Deviations)

	Year				Item wise share of adverse contribution	Relative share of adverse contribution (item wise)
	1997-98	1998-99	1999-2000	2000-01		
Debt Services			2.25		2.25	10.03
Pensions		0.63	4.58		5.20	23.21
Salaries		0.72	9.32		10.04	44.80
Education			4.70		4.70	20.98
Health	0.31		0.84		1.16	5.16
Agriculture	0.34				0.34	1.51
Community Development	4.65	0.24			4.89	21.80
Industry and Labour					-	-
Irrigation		0.15			0.15	0.68
Public Works			0.16	0.02	0.18	0.79
Forest		0.19	0.07		0.26	1.18
Transport			0.02	0.04	0.06	0.28
Housing and Urban Development	0.14				0.14	0.64
Tax Collection	0.55	0.09	0.59	0.03	1.27	5.65
General Administration	0.01	0.04	0.41		0.46	2.04
Legislature	0.11		0.14		0.25	1.12
Justice		0.05	0.11		0.16	0.70

(contd.)

Table 17A (contd.)

	Year				Item wise share of adverse contribution	Relative share of adverse contribution (item wise)
	1997-98	1998-99	1999-00	2000-01		
Jails	0.01				0.01	0.06
Police			0.85		0.85	3.78
Stationery & Printing			0.08		0.08	0.38
Year wise sum of adverse contribution	6.13	1.38	14.81	0.09	-	
Relative share of adverse contribution (year wise)	27.37	6.16	66.07	0.40	-	

Note: Deviations on salaries not included to avoid double counting as this is included in the expenditure figures under various items in the table.

Table 17B
Revenue Receipts (Scaled Deviations)

	Year				Item wise share of adverse contribution	Relative share of adverse contribution (item wise)
	1997-98	1998-99	1999-2000	2000-01		
Stamps and Registration	-1.11	-1.16	-1.07		-3.34	7.76
State Excise		-1.12	-0.08		-3.69	8.57
Sales Tax	-2.16	-3.09	-0.74	-1.50	-13.67	31.73
Motor Vehicles		-0.39		-0.54	-1.01	2.34
Forest	-0.37	-0.49	-0.34		-1.74	4.04
Dividends		-			-0.07	0.17
Debt services receipt	-0.18		-0.54	-0.16	-1.16	2.70
Share of Central Tax	-1.99	-0.80	-0.35	-1.82	-7.06	16.39
Grants from Centre		-4.35	-0.73	-2.97	-8.05	18.68
Non Tax Revenue	-0.15	-0.75	-1.30		-3.28	7.62
Year wise share of adverse contribution	-5.97	-12.15	-5.15	-5.57	-14.24	
Relative Share of Adverse contributions (year wise)	13.86	28.20	11.95	12.93	33.06	

Note: Sales Tax shows a sharp decline in 2001-02 partially due to the fact that the practice of collecting advances from what was only due in the next year from dealers was discontinued.

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1. Much of the data presented here is built on the data contained in the White Paper and the compiled Finance Accounts of the State (from 1990 to 2003).
 2. The reference period of 20 years from 1983 to 2003 has been used, as many of the exogenous factors (awards from the central government to the states, etc.) show a greater uniformity during this period. Also, it is a long enough period over which the long-term growth rates show some measure of stability.
 3. This is not to suggest that the current fiscal situation affords any scope for complacency or that the fiscal crisis is fully behind the state. The regime of ad hoc treasury controls beginning with 1997–98 has shown some signs of easing towards the end of 2001–02. The situation has further improved in 2002–03.
 4. Even though in 2001–02, there was a growth rate of only 2.22 per cent, this partially reflects the decision (taken to ensure financial discipline) not to avail of tax advances from sales tax payers actually due from them only in the next year.
 5. These were subsequently reversed in 2002–03.
 6. In 2002–03, there was an unprecedented growth of 25.13 per cent.
 7. However, while this is important, it is also to be noted that such an analysis at a sub-national level has not been perfected, at least in the Indian context. Fundamental limitations of such an analysis may even detract from its usefulness and limit its utility to—merely provide rough and ready guideposts for controlling debt.
 8. This was done to allow for the effects of the pay revision in the analysis.
 9. In the subsequent year i.e., 2002–03, salaries grew at a rate of 11.38 per cent.
 10. The analysis gives a good idea of the relative contributions only and does not purport to be an exact apportioning of the contributions to the fiscal crisis of various individual factors.
 11. Averages for the 20-year period 1983–2003 are used for expenditure and revenue items.
 12. In Kerala, the decentralisation that actually resulted in substantial resource ‘flows’ to local self-governments was financed not by *transfers* from the budgetary allocations of departments but from enhancements to the budget without dipping into the existing allocations of various departments. This may have been the only practical political course in a coalition-led government. Dipping into existing allocations could have upset the delicate inter-sectoral balance that had evolved over the years. Such changes could have taken shape only incrementally. Hence, the government conveniently took recourse to the path of enhancing allocations to local self-government while retaining—at more or less the same levels as in previous years—the allocations to other departments. The only notable exception to this has been the

- agriculture department, which even during the last year of the previous government's term was willing to part with its allocations to the local self-government.
13. Project Preparatory Technical Assistance for the Asian Development Bank Loan for the Modernising Government Programme and Fiscal Reforms, 2001.
 14. In the case of local bodies, this practice may further be restricted when they switch over to the Bill System (as opposed to cheques) recommended by the Second State Finance Commission in its 2001 report.
 15. The programme is funded by a loan from the Asian Development Bank and the Government of the Netherlands.
 16. Enacted as Act No. 29 of 2003.
 17. Enacted as Act No. 30 of 2003.
 18. BCR is the sum of resources available from the revenues of the state government after providing for non-Plan revenue expenditure. This is the amount available for financing the Annual Plan of that year.
 19. The question whether there should be any classification of expenditure into two neat categories of Plan and non-Plan is very much alive. But, any other scheme of classification—development versus non-development, new versus old, capital versus revenue, etc.—would only substitute one set of problems and weaknesses with another.
 20. The new non-special-category states (Jharkand and Chhattisgarh) and Goa and Delhi have been excluded for better comparability of data.

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