Understanding the New Growth and Distribution Dynamics in Kerala since 1980s

A thesis submitted during 2014 to the University of Hyderabad in the partial fulfilment of the award of a **Ph.D. Degree** in School of Economics

by

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CERTIFICATE

This is to certify that the thesis entitled **"Understanding the New Growth and Distribution Dynamics in Kerala since 1980s"** submitted by **Sreeraj A.P** bearing **Regd. No. 08SEPH05** in partial fulfilment of the requirements for the award of **Doctor of Philosophy** in **Economics** is a bonafide work carried out by him under my supervision and guidance which is a plagiarism free thesis.

The thesis has not been submitted previously in part or in full to this or any other University or Institution for the award of any degree or diploma.

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Countersigned By

Dean
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DECLARATION

I, **Sreeraj A.P,** hereby declare that this thesis entitled **"Understanding the New Growth and Distribution Dynamics in Kerala since 1980s"** submitted by me, under the guidance and supervision of **Dr. Vamsicharan Vakulabharanam,** is a bonafide research work which is also free from plagiarism. I also declare that it has not been submitted previously in part or in fill to this University or any other University or Institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodganga/INFLIBNET.

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Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
ASI	Annual Survey of Industries
CPI	Communist Party of India
CPI(AL)	Consumer Price Index (Agricultural Labour)
CPI(IW)	Consumer Price Index (Industrial Worker)
CPI(M)	Communist Party of India (Marxist)
DDP	District Domestic Product
ER	Economic Review
GDP	Gross Domestic Product
GoI	Government of India
GoK	Government of Kerala
IEM	Industrial Entrepreneur Memorandum
KSSP	Kerala Sasthra Sahitya Parishath (Kerala Science and Literature Movement)
LMS	London Missionary Society
MPCE	Monthly Per-Capita Expenditure

MPI	Monthly Per-Capita Income
MPR	Monthly Per-Capita Remittances
NCO	National Occupation Classification
NIC	National Industrial Classification
NSDP	Net State Domestic Product
NSSO	National Sample Survey Office
PDS	Public Distribution System
RDP	Regional Domestic Product
SC	Scheduled Caste
SSI	Small Scale Industries
ST	Scheduled Tribe
TPDS	Targeted Public Distribution System

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Chapter 1

Traversing from Low Growth and Moderate Inequality to High Growth and High Inequality in Kerala

1.1 The Problem

Kerala's economy moved from a low-growth regime from 1971-72 to 1987-88 to a high-growth regime from 1987-88 onwards as shown in Table 1.1. During the high growth regime i.e., 1987-88 to 2009-10, the economy witnessed a massive spurt in inequality, which is evident from Table 1.2. However, during the high growth regime, the standard development indicators like infant mortality rate (IMR), death rate, birth rate and literacy rate have continued to be impressive (see Table 1.3). The problem studied in this thesis is the coexistence of high economic growth with rising inequality in Kerala, which is an inversion of the pre-1987-88 Kerala's economy.

1.2 The Context

Kerala had a unique development experience which is often hailed as a 'model' for third world economies. The high human development indicators (which include low infant mortality rate (IMR), death rate, birth rate) without the mediation of high growth during 1970s and 1980s later came to be known as the Kerala model of economic development. The organized demands from the people and the redistributive policies from the government were the foundations over which Kerala's development experience was built. By late 1980s, Kerala's economy experienced a growth turnaround after a prolonged economic stagnation during the period, 1972-73 to 1987-88. During this period, the bargaining power of the working classes eroded partly because there was a general consensus in Kerala that labour militancy was one of the reasons for stagnation of commodity producing sectors in the economy (Issac, 1991). The ability of workers to forge solidarity within and between different sectors has eroded substantially after the adoption of liberalization policies of the central and state governments during

1990s. This led to the substantial decline in the bargaining power of trade unions and gave the government a free hand to cut back its social overhead expenditures. It is in this context that this study looks into the nature and determinants of high economic growth and worsening inequality.

1.3 The Methodology

Studies on inequality point out that there has been a massive increase in inequality between-classes in Kerala and it has become one of the most unequal states in India after the economic reforms in 1991. However, the increase in inequalities could be either due to increase in within-class/group or between-class/group inequalities. None of the studies have attempted to examine this. This dissertation tries to fill this lacuna by decomposing Gini coefficient into within-class and between-class components. This study also estimates the consumption levels of different classes to understand how these levels have been changing over the years. For this, a combination of historical and empirical analysis is employed in this study. Two class schemas (simplified and detailed), which fall under the Marxian tradition and developed in Vakulabharanam (2010), are used to shed light on the structural transformations in the economy.

A variety of statistical and econometric techniques are used in this study. Regression based techniques are employed to estimate the structural break and growth rate. Yitzhaki method (1994) is used to decompose Gini-coefficient into between-group and within-group components. Field survey was conducted in Kerala using a semi-structured questionnaire during 2012-2013 to understand the determinants of high growth and inequality dynamics.

1.4 The Interventions

The study makes the following contributions to the existing literature on Kerala's economy. First, the study uses large-scale data sets like Net State Domestic Product (NSDP) and National Sample Survey Office (NSSO) consumption expenditure to understand the determinants of high growth and

distributional dynamics from 1970 onwards. Further, extensive fieldwork across Kerala is conducted to supplement the findings from secondary data. Second, though many studies recognized the growing between-class inequality in Kerala, none of the studies attempted to look into within-class inequality, while this study estimates the contributions of both inter-group and intra-group inequality to total inequality. Third, the study attempts to explain growth and inequality dynamics by using 'regimes of growth and distribution' framework. Fourth, the study uses standard Marxian class framework to understand the class structure in Kerala. Finally, this study sheds light on the class dynamics and the emergence of new class structure in Kerala, which is the outcome of high growth and high inequality regime.

1.5 Plan for the Thesis

The remaining part of the thesis is divided into 6 chapters (Chapter 2-7). Chapter 2 presents the growth story: periodization of economic growth, sector-wise and sub-sector-wise growth of NSDP and the sources of growth in recent years. Chapter 3 looks into inequality dynamics in Kerala from 1983 to 2010. The explanations of growth and inequality, and problems of secondary data in explaining growth and inequality dynamics are presented in Chapter 4. Insights from fieldwork are presented in Chapter 5. Chapter 6 provides a composite explanation for the growth and inequality turnaround in Kerala. Chapter 7 presents the conclusions and policy implications of the thesis.

TABLES

Table1.1: Exponential Growth Rate of Sectors from 1971-72 to 2009-10

(Base Year=1999-00)

Sectors	1971-72 / 1987-88	1987-88 / 2009-10
Primary	-2.99 (0.00)	1.93 (0.00)
Secondary	2.71 (0.00)	6.37 (0.00)
Tertiary	2.77 (0.00)	6.90 (0.00)
NSDP	0.68 (0.00)	5.81 (0.00)

Data Source: DES, Government of Kerala, Various issues

1) Growth rates generated using semi-log model: Ln Y = a + bt
2) Standard errors are shown in parentheses

Table 1.2: Rural Urban Inequality in Kerala

Sector	1983-84	1993-4	2009-10
Overall	0.338	0.316	0.473
Rural	0.321	0.300	0.439
Urban	0.391	0.340	0.527

Data Source: NSSO Unit Record Data 1983-84 (Round: 38); 1993-94 (Round: 50) and 2009-10 (Round: 66)

Table 1.3: Human Development Indicators of Kerala &India

Year	Birth Rate		Death Rate		Infant Mortality Rate (IMR)	
	Kerala	India	Kerala	India	Kerala	India
1970	32.3	36.9	9.2	15.7	61	129
1981	25.6	33.9	6.6	12.4	37	110
1991	19.8	29.5	5.8	9.7	17	80
2001	16.9	25.4	6.4	8.5	10	66
2011	14.8	22.1	7.0	7.2	13	47

Data Source: Economic Review, Government of Kerala, Various issues

Chapter 2

Kerala's Growth Experience in the 1990s: Radical Departure from the 1980s?

2.1 Introduction

To understand the changing nature of economic growth, a careful periodization is required. An arbitrary selection of break points (like selection of the year of adoption of economic reforms/policy as break point) for estimating growth rates may generate an erroneous estimation of growth rates (Pushpangadan et.al., 2006). The main purposes of this chapter are to periodize the growth rates, show the contrasts between the nature of low growth and the growth turnaround along sectoral and regional axes, and understand the causal structures of high growth in recent years.

Rest of the chapter is organized as follows: Section two describes the data sources. Section three looks into periodization of economic growth. Section four deal with the decomposition of the growth rates on sectoral and sub-sectoral axis. Section five tries to understand the growth pattern of agricultural and industrial sector in Kerala. Section six looks into regional and district level economic growth from 1980 onwards. Section seven describes the determinants of high economic growth in Kerala. Conclusions are presented in the last section.

2.2 Data Source

Net State Domestic Product (NSDP) and district domestic product data are used to understand the nature and patterns of growth of primary, secondary and tertiary sectors and their sub-sectors. NSDP data is published by Directorate of Economics and Statistics, Government of Kerala and the data on district domestic product is collected and compiled from 'Statistics for Planning' and 'Economic Review' published by Directorate of Economics and Statistics and Kerala State Planning Board respectively. Splicing technique is used to convert

the NSDP series into same base year. The data on gross domestic product (GDP) for India is collected from Reserve Bank of India (RBI). Regarding the accuracy of the data inferences, an important weakness is the limited degree of dis-aggregation in the data that has been used. For instance, the agricultural sector is not dis-aggregated into plantation and food crop sectors. This creates problems in analyzing the agricultural growth since a major portion of the sector is comprised of plantation sector. Therefore, the data on agriculture is compiled from various sources and analyzed separately. In order to understand the dis-aggregated growth picture of industrial sector the study banks on data from Annual Survey of Industries (ASI) for factory sector and Small Scale Industries Census for small scale industries.

2.3 Periodization of Growth Rates: Structural Break Analysis

The analysis of Kerala's 49 years of growth in national output (between 1960-61 and 2009-10) requires careful periodization. This study relies on the natural break based on the kink in NSDP data. The periodization of growth rates of Net State Domestic Product (NSDP) is done by estimating the break points on the exponential growth function of the form,

$$\ln Y_t = a + gt + u_t . \quad \ldots\ldots\ldots\ldots (2.1)$$

Where **Y** is NSDP, **g** is growth rate, **t** is time trend and **u** is the error term

Break points are the years from which intercept and slope parameters (a and g) of the above regression model (2.1) undergo a shift. The breakpoints are estimated by using Bai-Perron methodology (Bai & Perron, 1998) by minimizing the residual sum of squares[1]. The number of break points is determined on the basis of Bayesian Information Criteria (BIS) (Wang, 2006)[2]. From the Bai-Perron multiple structural break test, it was found out that structural breaks were experienced in 1971-72 and 1987-88 (for detailed estimation results, see appendix 1.1). These points out the existence of three growth regimes during the

period from 1960-61 to 2009-10, viz. 1960-61 to 1971-72, 1971-72 to 1987-88 and 1987-88 to 2009-10[3].

2.3A Regimes of Growth

Kerala has a distinct growth pattern compared to the all-India growth trajectory[4]. Table 2.1 compares the all-India GDP growth rates vis-à-vis the growth rates of the state's NSDP. All-India GDP growth rates show that India experienced a sustained growth during all the three growth regimes, although growth picked up in the later phase. Though Kerala's growth rate was a little higher than the all-India growth rate in the first phase, the economy experienced a near-stagnation phase after 1971-72. However, Kerala experienced a turnaround in growth from 1987-88 onwards and started growing on par with the all-India case[5].

Kerala witnessed drastic structural changes in terms of changes in different sectors' contribution to aggregate output during 1960-61 to 2009-10. From Table 2.2 one could observe that tertiary sector's contribution increased phenomenally from 41.94 to 68.61 percent from 1960-61 to 2009-10. During the same period primary sector's contribution has reduced from 43.39 percent to 11.34 percent, while the secondary sector's contribution has slightly increased from 14.66 percent to 20.04 percent.

Institutional changes like land reforms[6] and the 'gulf boom[7]' which started in the 1970's hardly had any impact on the material growth of Kerala's economy until late 1980s. In fact, the growth rates show that there was retrogression during 1971-72 to 1987-88 compared to the previous decade. There was a turnaround in the growth rates during 1987-88 to 2009-10 in terms of the NSDP. Hence we can conclude that factors like land reforms, gulf boom, and massive spending on social overheads by the state did not result in material growth in the economy until 1987-88 as revealed from Table 2.3. It is interesting to note that most of the studies on Kerala economy have ascribed remittances as the reason

for the service sector growth in 1990's, although it hardly had any impact on the economy until 1987-88 (Kannan, 2005).

2.3B Growth of Sectors and Sub-Sectors

In order to understand the nature of growth, let us have a look at the growth of primary, secondary and tertiary sectors**.** For this purpose, the growth pattern of individual components in each sector must be understood. From Table 2.4, it is clear that the economy came out of a low growth regime during 1971-72 to 1987-88 to a high growth regime in 1987-88. During 1971-72 to 1987-88, all the three sectors, viz. primary, secondary and tertiary sectors experienced either a slow or even negative growth[8]. However, in the high growth regime i.e., between 1987-88 and 2009-10 all sectors experienced a growth turnaround and the overall growth was guided mainly by the tertiary sector and its sub-sectors. It is interesting to note that tertiary sector and its satellite sectors (in other sectors) like mining and quarrying, and construction experienced a substantial growth during 1987-88 to 2009-10. During the low growth regime tertiary sub-sectors like transport, storage and communication, trade, hotels and restaurants[9], banking and insurance, public administration and other services[10] experienced high growth.

The sector-wise contributions to NSDP are shown in Table 2.5. It is important to know the share of each sector in the total state domestic product in order to draw a meaningful conclusion about the effect of sectoral growth on the economy as a whole. If a sector grows exponentially and its contribution to the state domestic product is very low, its growth hardly makes any impact on the economy. During 1971-72 agriculture, manufacturing and tertiary sector accounted for 21.34, 6.19 and 42.34 percent of the NSDP respectively. The high contributions of agricultural sector continued up to the year 1987-88. However, during the high growth regime, the agricultural sector's contribution to aggregate output declined to 8.56 percent of NSDP and the remaining part of the total pie was contributed mainly by the tertiary sector and its subsidiary sectors. The high

growth in tertiary sector and the low growth in primary and secondary sectors are attributed to the weak inter-linkages among these sectors (Kannan, 2005)[11].

2.4 Sources of Growth: Decomposition of Growth Rates

To capture the individual sectors' contribution to aggregate output/income growth, the decomposition techniques following Kotz (Kotz et.al., 2008) is used here. The "contribution" of any component of NSDP**,** for example, agriculture sector's output to NSDP growth is defined as follows:

$$CON_A = \Delta A/A * A/Y \quad \ldots\ldots\ldots\ldots\ldots\ldots (2.2)$$

This means that the "contribution share" of any component of NSDP is defined as its contribution divided by the growth rate of NSDP over a period. Thus, if the NSDP growth rate over a period is 10 percent and the contribution of agriculture sector to NSDP is 5 percentage points, then the contribution share of agriculture sector would be 50 percent i.e., agriculture sector would have contributed half of NSDP growth over the period.

The decomposition results from Table 2.6 show that during the first growth regime the annual average growth of NSDP was 1.02 percent. Tertiary sector was the biggest contributing sector as it had contributed 1.37 percent in absolute terms which is estimated to be around 134.04 percent of total NSDP growth. This was followed by secondary sector which had contributed 0.41 percent of NSDP growth. It was the primary sector's negative growth which had resulted in the low economic growth during the same period. However, the annual average growth of NSDP was 14.37 percent and all sectors and sub-sectors registered a positive contribution during the high growth regime. The contributions of secondary and tertiary sectors increased substantially in absolute terms, as these sectors had growth rates of 3.11 percent and 10.32 percent respectively during this period.

2.5 Growth Patterns in Agricultural and Industrial Sectors

The share of agriculture in NSDP experienced a secular decline over the years, although this sector experienced a positive growth of late. Agriculture in Kerala, unlike other states in India, has been biased towards cash crops at the expense of food crops from the colonial period onwards (Ravi Raman, 1997:31-34). During mid-1980s, the cash crop cultivation in Kerala experienced phenomenal growth because of governments' positive discrimination[12] and favorable price factors (Ajith 2002: 6-7; Heller, 2000: 91-92). This is evident from the data on area under different crops which is shown in Table 2.7. The area under commercial crops like rubber, coconut and pepper had increased drastically at the expense of food crops like rice and tapioca. During the period from 1971-72 to 2009-10, the area under rubber increased from 8.60 to 19.69 percent of the total cropped area, while it increased from 23.11 to 29.18 percent for coconut and from 3.91 to 6.43 percent for the total area under pepper. The area under rice declined sharply from 29.59 percent in 1971-72 to 8.77 percent in 2009-10. The area under tapioca declined from 10.25 percent to 2.80 percent during the same period. One could also see that that the cash crops like rubber and coconut together accounted for around 50 percent of the total cropped area during 2009-10.

Table 2.8 shows that there has been a drastic reduction in the production of food crops like rice, and tapioca in both the periods. The cash crops like rubber, arecanut and coffee experienced an increase in production in both the periods. The crops like pepper, coconut, tea, and cardamom experienced a positive growth during the second period. This shows that cash crop production had increased in-spite of removing quantitative restrictions on imports as a part of the WTO agreement, free trade agreement with Sri Lanka in 1999 and Indo–Asian free trade agreement in 2003[13](Jeromi, 2005). In short, from the above discussion on changes in area under different crops and production trends, it is clear that the major portion of agricultural production in Kerala is contributed by

cash crops unlike the other states in India and the recent growth in agriculture sector in Kerala is contributed by cash crops.

It is well known that Kerala is one of the least industrialized regions in India (Thomas, 2005, Subramanian et.al., 1986). However, industrial sector has experienced a high growth as revealed from the sectoral and sub-sectoral growth of NSDP.

Table 2.9 presents the compound annual growth rates of the number of factories and workers in the factory sector. The number of factories and the workers in factory sector grew much faster during 1987-88 to 2007-08 compared to the previous period but, the worker per factory ratio in Kerala declined from 76.25 in 1980-81 to 59.32 in 2007-08.

The presence of Small Scale Industries (SSI) in Kerala is high as compared to that of the factory sector (Subramanian et.al., 1986). Its growth is phenomenal in recent years as revealed from Table 2.10. The number of SSI units has increased from 4.53 lakhs in 2001-02 to 14.68 in 2006-07 and employment in this sector increased from 11.15 lakhs to 30.24 lakhs during the same period. The size of the SSI unit in terms of employment has declined over the years as it has reduced from 2.46 persons per unit in 2001-02 to 2.06 persons per unit in 2006-07[14]. In short, both factory sector and small scale industries experienced growth in terms of number of industries and employment while there is a decline in worker per unit ratio.

2.6 Regional Dimension of Growth

The state of Kerala came into existence by combining three distinct Malayalam speaking regions in Southern India viz. Malabar and parts of South Canara- in the northern region of present Kerala, Cochin - in the central and Travancore - in the south. Malabar was under Madras Presidency of British India whereas Cochin and Travancore were princely states. Today the state of Kerala is divided into 14 revenue districts. On the basis of geographical, historical and

cultural similarities, the districts are generally grouped into North Kerala[15] and South Kerala[16] . Between these two regions, North Kerala is considered backward due to certain historical reasons[17]. But, it is often argued that policies like land reforms and universal education have narrowed down the regional imbalances considerably (Robin Jeffrey, 2001: 4-7; Nair, 1976; Ramachandran, 1996: 326). This section looks into the impact of economic growth on regional imbalances within the state in terms of contribution of the regions to the overall aggregate state output.

It could be observed from the Table 2.11 that both the regions did not deviate much from the all-Kerala growth pattern. However, during the first period (1971-72 to 1987-88) the growth of net regional product for South Kerala was higher than that of the north. During this period, South Kerala grew at 1.69 percent whereas North Kerala grew at a much lower rate of only 0.19 percent. As in the case of all-Kerala growth, during the period 1987-88 to 2009-10, both the regions grew exponentially. Regional contributions to NSDP have also changed over the years. Table 2.12 shows that the contribution of South Kerala to State Domestic product has declined over the years. It declined from 65.89 percent to 59.09 percent. The data reveals that there is considerable income disparity between the two regions as South Kerala accounted for nearly 60 percent of NSDP during 2009-10.

The district level growth stories would help us to understand the nature of growth at the micro level. Table 2.13 presents the compound annual growth rate of 14 districts in Kerala between 1971-72 and 2009-10. From the Table 2.13, it can be observed that during the period 1971-72 to 1987-88, all the districts in Kerala experienced either low or negative economic growth. However, from 1987-88 to 2009-10, the growth rate of district domestic product shows that all the districts experienced a higher growth rate as compared to the previous period. Table 2.14 reveals that each district has contributed more or less equally to the total production of the state. During the high growth regime from 1987-88 to 2009-10, the disparity in terms of each district's contribution to NSDP increased

drastically. The low contribution to NSDP by districts such as Kasaragod, Wayanad, Idukki and Pathanamthitta has continued even during 2009-10.

2.7 Determinants of High Economic Growth

2.7A Received Explanations on Economic Growth

There are a few studies on Kerala's economic growth turnaround. Pushpangathan and Parameshwaran's (2006) study argues that the high growth in NSDP was a tertiary sector-led growth, which occurred mainly because of the increased consumption fuelled by the remittances of migrants (Pushpangathan et.al., 2006). This means that the steady flow of foreign remittances to households translated into effective demand. The authors further added that the policy changes initiated in 1990's, like devaluation of rupee, increased the amount of remittance in rupee terms. Kannan's (2005) study also expressed a similar view; he argued that the reforms in mid-1980s like the devaluation of rupee along with remittances from gulf countries are the factors that contributed to the growth turnaround in Kerala. However, Mohanan Pillai and Shanta (2005) give supply side explanations to the growth revival story (Pillai et.al., 2005). They argue that the growth is essentially credit-led and further argued increased foreign remittances are only one among the factors that led to the massive turnaround in growth. Banking sector reforms like deregulation of financial sector and low interest rate policy along with high levels of social development led to the massive growth of tertiary sector. They base their argument on ever-expanding and high share of personal loans to total loans from scheduled commercial banks in Kerala compared to the all-India scenario to corroborate the credit-led growth of tertiary sector[18]. Conversely, Achin Chakraborthy (2005) argued that it is the complex web of relationships between the achievements in basic education and health care, and increase in consumer demand due to huge influx of remittances as the reason behind rapid economic growth in Kerala since 1987. In a demand constrained economy like Kerala, supply side arguments may not able to explain growth turnaround in the long run[19] (Kotz, 2008). Hence

remittances-led growth thesis might be the candidate explanation among the extend ones for the growth turnaround. Generally increase in growth is conceived as the result of increase in the total aggregate demand in an economy characterized by unutilized and underutilized resources (Kotz, 2008). The explanation of remittance led growth may not be totally sufficient for explaining the high growth as personal consumption expenditure is only one component of the aggregate demand. This warrants further investigation into the changes in other components of aggregate demand.

2.7B Growth Turnaround

In a demand-constrained economy (where there are fair amount of unutilized and under-utilized resources), a spurt in economic growth necessarily means an increase in aggregate demand (Kotz, 2008; Patnaik, 2006). So in traditional national income accounting, the aggregate demand can be written as follows[20]:

$$AD = C + I + G + (X-M) \quad \ldots\ldots\ldots (2.2)$$

Where AD = aggregate demand, C = household consumption, I = gross investment, G = government purchases of goods and services (government expenditure), and X-M = net exports or exports less imports of goods and services.

As shown in the equation (2.2), aggregate demand can be derived from various sources. For instance, a spurt in consumer demand (C) can be a source of growth if there is a change in distribution of income or redistribution by the government in favour of the classes which have high propensity to spend. Private investments (I) can also stimulate aggregate demand as investment broadens the productive base of the economy on the one hand and stimulate demand on the other. Government's current consumption (G) can also propel growth. This component of aggregate demand includes such items like national defense expenditures, expenditure on infrastructure, salaries of government employees

etc. Finally, increase in net export(X-M) can also act as a stimulant to aggregate demand.

In recent years there has been a substantial increase in household consumption and investment along with a substantial decline in government's current consumption[21] and net export (Oommen, 2010; Jeromi, 2007). There has been a substantial decline in government expenditure in Kerala over the years. Table 2.15 shows that the total government expenditure as a percentage of NSDP was stagnant from during 1980-85 to 1990-95. After the introduction of new economic policy in 1991, Kerala experienced a drastic decline it total government expenditure as a percentage of NSDP. It declined from 21.35 percent during 1990-95 to 17.07 percent during 1999-2004 and further declined to 16.25 percent during 2004-10.

Kerala has a near monopoly in the production of many cash crops in India like rubber, cardamom, pepper etc. (Jeromi, 2007). Kerala is also a major producer of coffee, tea, cashew nut, arecanut etc. (E.R, 2003; Jeromi, 2007). These cash crops are exported to rest of India and the world. Till early 1990s, Kerala's agriculture sector was dominated by cash crops, performed impressively well in terms of exports, production, and expansion of cultivated area (Jeromi, 2007). However, with the removal of controls on import commercial crop growers faced a tough situation because of the increase in imports and sharp fall in prices during 1997-98[22]. The Indo-Sri Lankan free trade agreement which came into effect in 2000 further worsened the export prospects of commercial crop growers in Kerala (see Table 2.16 and 2.17). The data on export from Kerala show (Table 2.18) that tea, coffee, and spices are adversely affected by the new trade regime as these commodities registered a negative growth in export during 1996-2010. However, the export of cashew, marine products and coir products registered a positive growth. In short, free-trade agreements led to sharp price fluctuation as a result of increase in the import of major commercial crops which are produced in Kerala[23]. The free trade agreements in recent years led to

the worsening of net export as Kerala import tradable goods substantially from rest of the country and the world[24].

2.7B1 Trends in Consumption

It is argued that the distribution policies of the government like land reforms, public distribution systems and other social welfare systems de-commodified labour and increased the reservation price of labour (United Nations, 1976:72). These were the factors which increased the wage rates in Kerala even during the 1970s and 1980s. Apart from these policies, Kerala government started massive welfare programmes in the form of workers' pension schemes and unemployment compensation during mid-1980s which covered virtually all rural labourers (Franke, 1994:179-180). The class wise trends in consumption expenditure in Kerala are shown in the Table 2.19 reveals that there has been a sharp increase in per capita consumer expenditure in Kerala over the years, and average consumption levels of the population are among the highest in the country (Subrahmanian et.al., 2008).

2.7B2 Trends in Investments

Kerala witnessed a sporadic episode of labour movements during 1960s and 1970s (Jose, 2005). This perhaps created a sense of skepticism about the industrial climate among prospective entrepreneurs (Oommen, 1993: 99-100). This image problem adversely affected the investments in the state particularly during 1970s and 1980s (Joseph et.al., 2006: 103-104). The Union Government's policy of confining its investment in sectors like petro-chemicals, energy and infrastructure also led to a sharp decline in Kerala's share in overall investments in the industrial sector (ibid: 104). However, from late-1980s onwards, investment in Kerala started to grow (ibid: 104). The dearth of data sources on investment is well known in India as in many other developing countries. Therefore, the investment trend in Kerala is captured by piecing together different data sets of different agencies. Data on capital invested in factory sector are collected from the Annual Survey of Industries (ASI), information on fixed

investment are collected from registered small scale industries from Small Scale Industries Census, industrial investment proposals collected from secretariat for industrial assistance (SIA) and credit provided by banks and financial institution are collected from Reserve Bank of India (RBI).

The broad trend in increase in investment is reflected in the rise in credit deposit ratio. Credit deposit ratio is a crude measure of credit deployment in various sectors of the economy (Narayana, 2003). The credit deposit ratio for Kerala increased from 44.8 percent during 1995-96 to 60.38 percent during 2009-10 (Statistical Tables Relating to Banks in India; RBI, 2011). The examples for increase in investments in Kerala are the substantial investments in organized factory sector and small scale industrial (SSI) sector. It is estimated that the investment in factory grew by 5.45 percent during 1980-81 to 1987-88. Though the compound rate of growth of investment in organized factory sector declined during subsequent years, the sector could maintain a positive rate of growth of investment; the sector registered 1.50 percent growth rate in investment during 1987-88 to 2008-09 (growth rates are derived from Table 2.21). The volume of investment in small scale industrial sector in Kerala during recent years is phenomenal, which is evident from the Table 2.22. The compound rate of growth of fixed investment in registered small scale sector is estimated at 11.50 percent during 1987-88 to 2001-02. It further increased to 15.19 percent during 2001-02 to 2006-07 (growth rates are derived from Table 2.22).

It is argued that there has been a rapid increase in investments in non-tradable sectors like educational sector, health care, retail trade (like gold jewellery shops, bars and restaurants), tourism etc., and the increase in investments in these sectors are considered as the engine of economic growth in recent years (Ravi Raman, 2010:146; Jeromi, 2005). However, the data on investments in these sectors are not available; it can be speculated from the following information. After the policy of privatization of professional education by the then government in 1994, there has been an increase in investment in this sector. The volume of investment in higher education sector can be speculated

from the increase in number of engineering colleges, medical colleges and management institutes in recent years. The number of medical colleges increased from 5 to 33, engineering colleges increased from 15 to 83 and management institute increased from 3 to 30 during 1994-2009 (Jeromi, 2005; ER, 2010). These trends show that considerable investment took place in this sector.

The data on Industrial Entrepreneur Memorandum (IEM), Direct Industrial Licenses (DIL), Letter of Intents Issued (LOI) and received foreign direct investment inflows which is furnished in Table 2.23 shows that investment in licensed and de-licensed industries[25] are taking place in Kerala in spite of Kerala's stigma of being an investor-unfriendly state. However, Kerala's share in overall investments in India is still very low.

The state was able to develop an extensive institutional credit market as early as the late 19th century because of the early commercialization of agriculture in the region (Oommen, 1994:57). During 1980s Kerala ranked first in the combined total of outstanding loans advanced to agriculture from commercial banks and agricultural co-operatives credit societies in India (Heller, 2000: 124). By 1987, the combined total outstanding loans to agriculture in Kerala were Rs. 3795 per hectare of gross cropped area (ibid: 125). During 2001-02 the total credit deployment to agriculture increased drastically to Rs.7666 per hectare of gross cropped area. However, during 2009-10, the total credit deployment to agriculture increased marginally to Rs.9039.5 per hectare of gross cropped area despite the looming agrarian crisis (Economic Review, 2011). The misuse and diversion of agricultural loans is chronic in India. But this practice is less pronounced in Kerala as revealed from some case studies [26](Heller, 2000:126; Nair et.al., 2007).

In short, it can be concluded that there is a substantial increase in consumption expenditure and investments in the economy. The increase in investments both in tradable and non-tradable sectors in Kerala is more

pronounced particularly after 1987 and it is an important determinant of high economic growth in Kerala in recent years.

2.8 Conclusion

Kerala's economy developed over three distinct growth regimes during 1960-61 to 2009-10; a moderate growth regime from 1960-61 to 1971-72, a low growth regime from 1971-72 to 1987-88 and a high growth regime from 1987-88 to 2009-10. The high growth regime is characterized by positive growth of all sectors and sub-sectors. However, during the high growth regime, the tertiary sectors along with construction sector grew exponentially and started to contribute nearly 3/4th of the growth in net state domestic product and hence it is a tertiary sector-led growth. The crop-wise data on production and area under crops has revealed that the positive growth of agriculture sector is contributed by the growth of plantation sector. The factory sector and small scale sector contributed to the growth turnaround in industrial sector. The region-wise and district-wise story reveals that both the regions and all the districts moved into a higher growth regime. However, regional and district level growth rates shows that regional and district level differences still exist in Kerala in spite of radical reforms by the state. It also turned out that consumption expenditure and investments are the sources of high growth in Kerala in recent years.

Appendix 1.1

Results of Bai-Perron Multiple Structural Break Analysis

Linear Regression - Estimation by Least Squares			
Usable Observations	49	Degrees of Freedom	47
Centered R**2	0.914	R Bar **2	0.912
Standard Error of Estimate	0.121	Sum of Squared Residuals	1.135
Regression F(1,45)	511.22	Significance Level of F	0.000
Log Likelihood	23.68	Durbin-Watson Statistic	0.058
Variable	Coeff	Std Error	
Constant	12.100	0.036	
TIME	0.038	0.001	
Best-2 breakpoints 1971-72 ; 1987-88			

Data Source: Kerala NSDP data are from Directorate of Economic and Statistics, Government of Kerala, various issues.

1) Base Year = 1999-2000.
2) Splicing Technique is used to convert entire data series into 1999-2000 base year

TABLES

Table 2.1: Exponential Growth Rates of India and Kerala from 1960-61 to 2009-10 (%) (Base year=1999-00)

Region	1960-61 / 1971-72	1971-72 / 1987-88	1987-88 / 2009-10	1960-61 / 2009-10
Kerala (NSDP)	4.40 (0.00)	0.85 (0.00)	5.81 (0.00)	3.50 (0.00)
All India (GDP)	3.61 (0.00)	4.13 (0.00)	6.42 (0.00)	4.92 (0.00)

Source: Kerala NSDP data are from Directorate of Economic and Statistics, Government of Kerala, various issues and All India GDP data are from Reserve Bank of India (RBI)

1) The standard error of the estimates are shown in parenthesis
2) Growth rates generated using semi-log model: Ln Y = a + bt

Table 2.2: Sector-Wise Contribution to NSDP from 1960-61 to 2009-10 (in %) (Base Year=1999-00)

Sectors	1960-61	1971-72	1987-88	2009-10
Primary	43.39	43.95	25.65	11.34
Secondary	14.66	13.71	17.43	20.04
Tertiary	41.94	42.34	56.92	68.61
NSDP	100.00	100.00	100.00	100.00

Data Source: Directorate of Economic and Statistics, Government of Kerala.

Table 2.3: Exponential Growth Rate of Sectors from 1960-61 to 2009-10 (in %)

(Base Year=1999-00)

Sectors	1960-61 / 1971-72	1971-72 / 1987-88	1987-88 / 2009-10	1960-61 / 2009-10
Primary	5.30 (0.00)	-2.40 (0.00)	1.93 (0.00)	0.88 (0.00)
Secondary	2.12 (0.01)	2.71 (0.00)	6.37 (0.00)	4.36 (0.00)
Tertiary	4.35 (0.00)	2.68 (0.00)	6.90 (0.00)	4.59 (0.00)
NSDP	4.40 (0.00)	0.85 (0.00)	5.81 (0.00)	3.50 (0.00)

Data Source: Directorate of Economic and Statistics, Government of Kerala.

1) Growth rates generated using semi-log model: Ln Y = a + bt

Table 2.4: Growth Rates of Sectors from 1980-81 to 2009-10 (in %) (Base Year=1999-00)

Industry origin	1971-72 / 1987-88	1987-88 / 2009-10	1971-72 / 2009-10
Agriculture	0.07 (0.00)	2.11 (0.02)	2.05 (0.00)
Forestry, logging	-8.86 (0.01)	2.22 (0.00)	-3.34 (0.01)
Fishing	-3.84 (0.00)	0.65 (0.01)	0.10 (0.01)
Mining and quarrying	4.67 (0.00)	3.86 (0.01)	6.16 (0.01)
Subtotal: Primary	-2.40 (0.00)	1.93 (0.00)	0.93 (0.00)
Manufacturing	3.76 (0.00)	4.24 (0.00)	4.56 (0.00)
a) registered	4.42 (0.00)	2.99 (0.03)	4.34 (0.01)
b) unregistered	2.89 (0.00)	5.51 (0.00)	4.77 (0.01)
Electricity ,Gas and water supply	-1.99 (0.01)	12.87 (0.02)	8.58 (0.02)
a) electricity	-4.44 (0.01)	15.04 (0.02)	8.75 (0.03)
b) Gas	17.30 (0.01)	5.54 (0.01)	13.11 (0.02)
c)Water supply	6.50 (0.00)	9.43 (0.01)	7.70 (0.01)
Construction	1.97 (0.00)	7.81 (0.00)	5.54 (0.00)
Subtotal: Secondary	2.68 (0.00)	6.37 (0.00)	5.28 (0.00)
Transport, Storage and Communication	6.80 (0.01)	11.78 (0.00)	10.65 (0.00)
a) railways	8.15 (0.00)	11.78 (0.00)	6.50 (0.01)
b)transport by other means	6.34 (0.00)	10.09 (0.00)	9.49 (0.00)
c) communication	7.82 (0.01)	22.43 (0.01)	14.55 (0.00)
d)storage	6.79 (0.00)	5.75 (0.01)	7.47 (0.00)
Trade, Hotels and Restaurants	0.87 (0.00)	5.53 (0.00)	3.90 (0.00)
Banking and insurance	9.22 (0.00)	11.76 (0.00)	11.35 (0.00)
Real estate and ownership of dwelling	3.39 (0.00)	6.33 (0.00)	4.77 (0.00)
Public administration	9.40 (0.00)	6.82 (0.00)	7.87 (0.01)
Other services	3.90 (0.00)	5.31 (0.00)	4.61 (0.00)
Subtotal: Tertiary	2.77 (0.00)	6.90 (0.00)	5.43 (0.00)
NSDP	0.85 (0.00)	5.81 (0.00)	4.16 (0.00)

Data Source: Directorate of Economic and Statistics, Government of Kerala.

1) Growth rates generated using semi-log model: Ln Y = a + bt
2) The standard error of the estimates are shown in parenthesis

Table 2.5: Sector-Wise Contributions as a Percentage of NSDP (Base Year=1999-00)

Industry origin	1971-72	1987-88	2009-10
Agriculture	21.34	19.56	8.56
Forestry, logging	17.10	3.61	1.51
Fishing	5.32	2.22	0.99
Mining and quarrying	0.19	0.27	0.29
Subtotal: Primary	43.95	25.65	11.34
Manufacturing	6.19	8.70	7.29
a) registered	2.93	5.06	3.09
b) unregistered	3.26	3.64	4.20
Electricity ,Gas and water supply	0.18	0.14	0.54
a) electricity	0.16	0.06	0.43
b) Gas	0.00	0.03	0.03
c)Water supply	0.02	0.05	0.08
Construction	7.34	8.59	12.22
Subtotal: Secondary	13.71	17.43	20.04
Transport storage and communication	1.59	3.95	14.05
a) railways	0.15	0.41	0.44
b)transport by other means	1.31	3.20	7.10
c) communication	0.12	0.29	6.47
d)storage	0.02	0.04	0.05
Trade hotels and Restaurants	23.67	23.92	21.26
Banking and insurance	0.65	2.43	7.63
Real estate and ownership of dwelling	7.56	11.22	11.48
Public administration	0.91	3.46	4.15
Other services	7.96	11.94	10.04
Subtotal: Tertiary	42.34	56.92	68.61
NSDP	100.00	100.00	100.00

Data Source: Directorate of Economic and Statistics, Government of Kerala.

Table 2.6: Decomposition of Annual Average Growth of NSDP from 1971-72 to 2009-10 (Base Year=1999-00)

Industry origin	1971-72 / 1987-88		1987-88 / 2009-10		1971-72 / 2009-10	
	AAGR	In %	AAGR	In %	AAGR	In %
Agriculture	0.06	6.17	0.72	5.03	0.51	5.08
Forestry, logging	-0.64	-63.05	0.08	0.55	-0.22	-2.16
Fishing	-0.19	-18.32	0.10	0.68	-0.01	-0.13
Mining and quarrying	0.01	0.75	0.05	0.31	0.03	0.33
Subtotal: Primary	-0.76	-74.45	0.95	6.58	0.32	3.13
Manufacturing	0.25	24.05	0.82	5.73	0.66	6.51
a) registered	0.20	19.58	0.32	2.22	0.30	2.96
b) unregistered	0.05	4.47	0.50	3.51	0.36	3.55
Electricity ,Gas and water supply	0.00	-0.35	0.12	0.81	0.08	0.76
a) electricity	-0.01	-0.75	0.10	0.69	0.06	0.63
b) Gas	0.00	0.10	0.00	0.01	0.00	0.02
c)Water supply	0.00	0.29	0.01	0.10	0.01	0.11
Construction	0.17	16.70	2.17	15.10	1.53	15.17
Subtotal: Secondary	0.41	40.41	3.11	21.64	2.27	22.43
Transport storage and communication	0.19	18.94	3.02	21.04	2.12	20.95
a) railways	0.03	2.70	0.08	0.58	0.07	0.67
b)transport by other means	0.14	13.59	1.01	7.01	0.74	7.29
c) communication	0.02	2.39	1.92	13.38	1.31	12.91
d)storage	0.00	0.25	0.01	0.07	0.01	0.07
Trade hotels and Restaurants	0.23	22.30	2.81	19.57	1.99	19.68
Banking and insurance	0.14	14.12	1.19	8.31	0.87	8.56
Real estate and ownership of dwelling	0.25	24.55	1.16	8.06	0.89	8.76
Public administration	0.23	22.25	0.76	5.28	0.61	6.00
Other services	0.33	31.88	1.37	9.53	1.06	10.49
Subtotal: Tertiary	1.37	134.04	10.32	71.79	7.53	74.44
NSDP	1.02	100.00	14.37	100.00	10.11	100.00

Data Source: Directorate of Economic and Statistics, Government of Kerala

Table 2.7: Area Under Major Crops as a Percentage of Total Cropped Area (%)

Crop	1971-72	1987-88	2009-10
Rice	29.59	23.13	8.77
Pepper	3.91	4.49	6.43
Areca nut	2.93	2.01	3.72
Cashew nut	3.40	4.65	1.84
Tapioca	10.25	6.72	2.80
Coconut	24.69	24.6	29.18
Coffee	1.11	2.29	3.18
Tea	1.25	1.21	1.38
Rubber	6.38	12.12	19.69
Cardamom	1.61	2.19	1.56
Miscellaneous Crops	14.87	16.59	21.45
Total	100.00	100.00	100.00

Data Source: Economic Review; Government of Kerala.

Table 2.8: Growth Rates of Major Agricultural Commodities (in Qty) (%)

Crop	1971-72/ 1987-88	1987-88/ 2009-10	1971-72/ 2009-10
Rice	-1.05 (0.00)	-1.32 (0.01)	-2.27 (0.00)
Pepper	0.76 (0.01)	0.61 (0.01)	2.53 (0.00)
Areca nut	-4.18 (0.01)	12.85 (0.01)	8.11 (0.01)
Cashew nut	17.91 (0.03)	-3.68 (0.01)	3.06 (0.01)
Tapioca	-3.68 (0.00)	-0.77 (0.00)	-2.23 (0.00)
Coconut	-1.47 (0.00)	1.65 (0.03)	1.89 (0.01)
Coffee	9.49 (0.05)	3.04 (0.01)	5.70 (0.01)
Tea	1.41 (0.00)	0.26 (0.00)	1.01 (0.00)
Rubber	4.47 (0.03)	4.62 (0.00)	5.91 (0.01)
Cardamom	3.09 (0.02)	6.50 (0.01)	5.15 (0.00)

Data Source: Economic Review; Government of Kerala.

1) Growth rates generated using semi-log model: Ln Y = a + bt

Table 2.9: Growth Rates of Number of Workers & Factories in Factory Sector (%)

Region	1980-81 / 1987-88	1987-88 / 2007-08	1980-81 / 2007-08
Number of Factories	0.03	2.70	2.00
Number of Workers	-1.93 (76.25)	2.12 (66.38)	1.05 (59.32)

Data Source: Annual Survey of Industries, Government of India

1) Number of workers per factory is shown in parenthesis
2) Growth Rates are point to point compound annual growth rates

Table 2.10 Growth of Small Scale Industry in Kerala (%)**

Year	2001-02	2006-07	Growth Rate (2001-02 / 2006-07)
Number of units (Lakh)	4.53	14.68	26.52
Employment (Lakhs)	11.15 (2.46)	30.24 (2.06)	22.09

Source: 3rd and 4th Small Scale Industries Census, Government of India

1) Values in parenthesis shows the size of the SSI unit in terms of employment
2) ** (registered + unregistered)
3) Growth Rates are point to point compound annual growth rates

Table 2.11: Growth Rates of Regional Domestic Product (%) (Base Year=1999-00)

Region	1971-72 / 1987-88	1987-88 / 2009-10	1971-72 / 2009-10
South Kerala	1.69 (0.02)	5.77 (0.00)	4.02 (0.00)
North Kerala	0.19 (0.02)	7.57 (0.00)	5.09 (0.01)
Kerala	0.85 (0.00)	5.81 (0.00)	4.16 (0.00)

Source: Statistics for Planning & Economic Review, Government of Kerala.

1) Growth rates generated using semi-log model: Ln Y = a + bt
2) The standard error of the estimates are shown in parenthesis

Table 2.12: Regional Domestic Product as a Percentage of NSDP (Base Year=1999-00)

Region	1980-81	1987-88	2009-10
South Kerala	65.81	64.85	59.09
North Kerala	34.19	35.17	40.93
Kerala	100.00	100.00	100.00

Source: Statistics for Planning & Economic Review, Government of Kerala.

Table 2.13: District-Wise Growth Rates % (Base Year=1999-00)

District	1971-72 / 1987-88	1987-88 / 2009-10	1971-72 / 2009-10
Trivandrum	1.58 (0.00)	7.18 (0.00)	4.79 (0.00)
Kollam	-2.32 (0.00)	6.32 (0.00)	2.79 (0.00)
Pathanamthitta	-	6.78 (0.00)	5.71* (0.00)
Allapy	0.56 (0.00)	5.91 (0.00)	3.69 (0.00)
Kottayam	1.18 (0.00)	4.27 (0.01)	4.41 (0.00)
Idukki	1.96 (0.01)	5.20 (0.00)	3.23 (0.01)
Ernakulum	2.74 (0.00)	4.49 (0.00)	4.05 (0.00)
Thrissur	1.60 (0.00)	6.50 (0.00)	3.64 (0.00)
Palakkad	1.91 (0.00)	10.88 (0.00)	4.77 (0.00)
Malappuram	0.77 (0.00)	6.68 (0.00)	6.30 (0.00)
Calicut	0.72 (0.00)	6.89 (0.00)	4.09 (0.00)
Wayanad	-	5.93 (0.01)	6.27** (0.00)
Kannur	-1.53 (0.01)	6.61 (0.00)	2.91 (0.00)
Kasaragod	-	6.56 (0.00)	6.62*** (0.00)
Kerala	0.85 **(0.00)**	5.81 (0.00)	4.16 (0.00)

Source: Statistics for Planning & Economic Review, Government of Kerala.

1) Growth rates generated using semi-log model: Ln Y = a + bt

2) The standard error of the estimates are shown in parenthesis

3) *growth rate from1983-84 to 2009-10

4) ** growth rate from 1981-82 to 2009-10

5) *** growth rate 1984-85 to 2009-10

Table 2.14: District-Wise Income as a Percentage of NSDP (Base Year=1999-00)

District	1971-72	1987-88	2009-10
Thiruvananthapuram	10.23	10.30	10.92
Kollam	12.83	8.25	7.87
Pathanamthitta	-	4.57	3.96
Alappuzha	8.07	6.95	6.86
Kottayam	7.17	6.99	6.96
Idukki	4.94	4.89	3.14
Ernakulam	13.17	13.52	12.18
Thrissur	9.41	9.38	7.20
Palakkad	6.64	7.12	7.07
Malappuram	6.67	6.13	11.02
Kozhikode	9.63	8.71	8.82
Wayanad	-	2.65	2.38
Kannur	11.24	7.26	7.76
Kasaragod	-	3.30	3.88
Kerala	100.00	100.00	100.00

Source: Statistics for Planning & Economic Review, Government of Kerala.

Table 2.15: Government Expenditure as a Percentage of NSDP (in Current Prices)

Year	Government Expenditure (% of NSDP)
1980-85	21.73
1990-95	21.35
1999-04	17.07
2004-10	16.25

Data Sources: Economic Review and Budget in Brief, Government of Kerala

Table 2.16: Annual Average Growth Rate of Imports to India (in Qty)

Commodities	1996-97 to 2005-06
Rubber	40.1
Pepper	33.6
Cardamom	88.8
Coffee	44.5
Tea	30.5

Data Source: Jeromi (2007)

Table 2.17: Import as a Proportion to Production to India (in Qty)

Period	Pepper	Ginger	Coffee	Tea	Rubber	Cashew	Coconut
1995-1999	4.3	4.2	0.5	0.4	1.6	28.5	0
2000-2004	22	8.3	2.6	2	0.3	73.5	0.2

Data Source: Jeromi (2007)

Table 2.18: Commodity Wise Export From Kerala (in Qty)

commodities	CAGR (1996-97 to 2009-10
Tea	-0.82
Cashew	1.84
Spices	-1.03
Coffee	-5.37
Marine Products	18.00
Coir Products	11.16

Data Source: Economic Review, Government of Kerala.

Table 2.19: Class Wise Monthly Per-Capita Consumption Expenditure (in Rs) (Base Year=2009-10)

Class	1983-4		1993-4		2009-10		CAGR	
	Population	MPCE	Population	MPCE	Population	MPCE	1993-94 /1983-84	2009-10 /1993-94
Urban Elite	3.71	1351.4	5.14	1889.88	9.11	3357.13	3.41	3.66
Urban Worker	13.84	993.51	19.32	1300.14	16.91	2289.66	2.73	3.60
Rural Elite	24.84	966.62	28.32	1019.34	19.77	2454.23	0.53	5.65
Small Peasants	17.39	911.43	14.51	1022.28	10.28	2113.76	1.15	4.64
Non Agri-worker	15.32	709.41	18.08	683.91	34.18	1612.08	-0.37	5.51
Agri-Worker	24.89	597.78	14.62	755.79	9.76	1186.82	2.37	2.86
Total	100.00	842.24	100.00	1008.00	100.00	2062.12	1.81	4.58

Source: NSSO Unit Record Data; Consumption Expenditure Survay1983-84(Round: 38), 1993-4(Round: 50) and 2009-10(Round: 66)

Table 2.20: Monthly Per-Capita Consumption Expenditure among Migrants and Non-Migrants in 2008 (Base Year=2009-10)

Class	non-migrants		Migrants	
	Population%	MPCE	Population%	MPCE
Urban Elite	4.17	2504.64	6.60	2642.68
Urban Worker	20.03	1212.71	16.22	1339.93
Rural Elite	22.13	1133.99	25.96	1425.81
Small Peasants	6.72	1032.95	12.44	1976.85
Non Agri-worker	30.92	807.77	29.72	1240.11
Agri-Worker	16.03	652.95	9.05	969.24
Total	100	1017.39	100	1469.74

Data Source: NSSO Unit Record Data; Migration Survey, 2008

Table 2.21: Investments in Fixed Capital in Factory Sector (in Crore) (Base Year=2009-10)

Year	Fixed Capital	Kerala's share in all-India
1980-81	5263.03	2.68
1987-88	7629.03	2.32
2007-08	10278.34	1.08

Data Source: Annual Survey of Industries, Government of India

Table 2.22: Investments in Fixed Capital in Registered SSI Sector (in crore) (Base Year=2009-10)

Year	Fixed Capital	Kerala's share in all India
1987-88	1624.02	4.17
2001-02	7457.90	5.40
2006-07	15122.85	3.97

Data Source: 2nd 3rd and 4th SSI Census, Government of India

Table: 2.23 Industrial Investment Scenario in Kerala

Items	August 1991 to March 2009-10	
	Cumulative Total	Percent of all India
IEMs, LOIs and DILs filed(in numbers)	690	0.84
IEMs, LOIs and DILs Proposed Investment (Crore)	13574	0.22
IEMs implemented (in numbers)	81	0.83
IEMs Investment(in crore)	1019	0.30
Received FDI Inflow (in crore)	5816	0.50*

Source: Secretariat of Industrial Assistance, Department of Industrial Promotion and Policy, Government of India, New Delhi.

1) IEMs: industrial Entrepreneur Memorandum, in respect of de-licensed sector.

2) DILs: Direct Industrial Licenses, in respect of licensed sector.

3) LOIs: Letter of Intents issued, in respect of items under licensed sector.

4) *up to May 2012

ENDNOTES

[1] Bai and Perron (1998, 2003) have developed an approach to identify breaks in a series based on the least squares principle of minimizing the sum of residual squares common to regression analysis (Bai and Perron, 2003). The description of this approach is available in Bai and Perron (1998, 2003) and Balakrishnan et.al. (2007).

[2] To select the number of breaks in the time series, this study uses the Bayesian Information Criteria (BIC). Here the number of breaks selected is that for which BIC is at a minimum. For more detailed discussion on BIC see Balakrishnan et.al. (2007).

[3] Pushpangathan et.al. (2006) conducted similar analysis for Kerala. From the analysis they found that there are two break periods from 1960-61 to 2001-02, viz. 1969-70 and 1987-88.

[4] The break date for all India GDP series is 1978-79 (Balakrishnan et.al., 2007). However, for comparison all India growth rates are periodized in accordance with the break points for Kerala's NSDP series.

[5] By the year 2000 Kerala became one of the highly growing states in India (Ahulavalia, 2002).

[6]Ronald J. Herring (1983) observes that land reforms would unshackle the forces of production from the clutches of feudal relations. The large feudal farms were managed in socially irrational ways, providing less employment and produce per acre than small farms. By placing a low ceiling, land reforms will result in better utilization of scarce land and abundant labour, through the maximization of return to scarce land by intensifying the inputs of their relatively abundant factors of production like labour and managerial time given the primitive technology (Ronald J Herring, 1983:239-240).

[7] Kannan argues that the remittance from the migration process in the 1970s did not result in stimulating aggregate demand and there by the growth process, since major part of the remittances were used for repaying old debt and major chunk of migrants belong to low income group (Kannan, 2005).

[8] There are multiple arguments for the stagnation of productive sectors in Kerala during 1970s and early 1980s. The argument for the stagnation in agriculture ranges from labour militancy, high wage rates, trade union's opposition to labour saving technology, public provision of social overheads are seen as the reasons for the stagnation of Kerala agriculture (Prakash, 1994). But Thomas Isaac (1987) and Pushpangathan & Kannan (1988) blame low productivity, lack of irrigation facilities and soil erosion due to faulty cultivation practices and widespread de-forestation as reasons for stagnation in the sector**.** Some micro-studies pointed out that the special assistance to scheduled castes and backward castes and the provision of rationing and other assistance, led to an increase in the agriculture workers' retention price and their unwillingness to work at low wages that prevailed in agriculture sector which led to a reduction of labour supply (Nair, 1990). Heller criticizes the labour militancy and the resultant stagnation thesis in Kerala's agriculture sector. He argues that it was the sharp reduction in paddy price from 1985-86

onwards that resulted in the conversion of paddy to tree crops (Heller, 2000; 91- 92). The negative growth of agriculture sector during 1980s is because of the conversion of paddy to tree crops and the consequent gestation period of tree crops. He further added that it was during 1970s that both trade union activities and area under paddy reached its peak in the state. Hence the labour militancy argument does not fit in explaining agrarian stagnation (Heller 2000: 121-122). For explaining industrial sector stagnation, similar explanations which are used to explain agrarian stagnation have been used. Lopsided industrial (less diversified) structure and high wage cost was identified as the main reason for the stagnation of organised industrial sector. The lopsided growth of industrial structure adversely affected the supply-side variables due to lack of technological linkages and agglomeration economies (Subramanian 1986, Thampy 1990, Albin 1990). The high raw material costs and wage costs were identified as the main reasons for the stagnation of the un-organised industrial sector. However, later it was found that in the organised small scale sector, the wage rate in Kerala was much lower than that of India (Mohanan Pillai, 1994). Oommen pointed out that high raw material cost, high wage cost along with psychic cost even resulted in the migration of small scale industries to other neighbouring states (Ooman, 1990). However, Jayan Jose (Jose, 2003) argues that there is absolute independence between intensity of labour disputes on the one hand and yearly growth of employment and labour productivity on the other in the factory sector. This shows that labour disputes as a problem were confined only in unorganized sector of the industry and have had little association with growth performance of factory sector in Kerala. The sharp decline in federal government's investments in industries is also cited as the reason for the stagnation of industrial sector in Kerala. Harilal et al.(2003) argued that while analysing the growth of Kerala's economy, the link between migration and specific endogenous factors should be taken into consideration. They argued that the migration process drew the labour from all the producing sectors which resulted in an increase in wage spiral and the increased spending through foreign remittances which turned the terms of trade against the tradable commodities that are produced in Kerala (Harilal et.al, 2003).

[9] Hotels and restaurant includes Tourism sector which is growing phenomenally during recent years.

[10] Other services include medical, educational and sanitary services both in private and public sectors.

[11] The service sector elasticity estimates during 1980s shows that the demand from primary and secondary sectors is insignificant in generating demand for service sector in Kerala. During 1993-94 to 2003-04, the value of the estimate turned out to be positive and statistically significant. However, the value of the co efficient is too low (Chakravarty, 2005). This is a pointer to the weak inter-sectoral linkage in the state.

[12] The governments in Kerala gave support to cash crops on a massive scale in the form of subsidies, tax concessions and extension services since the formation of the state and it continues even today (Ajith,2002: 6-7).

[13] After these trade pacts there has been sharp fluctuations in prices of agricultural commodities and increase in farmers' suicide because of indebtedness (Jeromi, 2005).

[14] During 1980s, Kerala's small scale industry had the highest employment per unit ratio (Subramanian et.al, 1986). The decline in employment per unit ratio could be a pointer towards high mechanization in this sector.

[15] North Kerala includes the northern districts such as Kasaragod, Kannur, Wayanad, Kozhikode, Malappuram and Palakkad.

[16] South Kerala includes the southern districts such as Thiruvananthapuram, Kollam, Alappuzha, Pathanamthitta, Idukki, Kottayam, Ernakulam and Trissur.

[17] The Travancore region was well ahead in terms of development compared to other regions in Kerala at the time of the creation of the state of Kerala. The missionaries, the rulers of Travancore state and the social reform movements played a crucial role for the relate advancement of this region. Missionary activities, particularly by protestant missionaries in the mid-19th century, played a pivotal role in spreading education particularly among the oppressed sections in Travancore State since imparting education was a precondition for proselytization (Ramachandran, 1997). The missionaries not only started schools, but also hospitals and dispensaries. This increased the accessibility of lower caste/class people to health care system in the region (ibid.). Moreover, they were the first organized group which opposed the caste discriminations which were prevalent in Travancore from the second half of 19th century. A host of other factors have influenced the development of educational system in Travancore since 1850s. This includes the advent of plantation (as the rulers of Travancore and Cochin were convinced that plantations would enrich their economy), the abolition of state monopoly of spices (which was a major bottleneck for the expansion of trade between Travancore and British India) (ibid.), the unprecedented demand for skilled and unskilled labourers, both in British Indian provinces and overseas British territories, the infrastructural and developmental activities by setting up industries, constructing new roads, canal systems, railways ports and harbors, and the development of facilities like schools, irrigation, public health and sanitation. The land reforms (by conferring ownership right of land with the right to transfer without any restriction to tenant farmers), the incentives for the cultivation of waste land and plantation crops, the coconut and coir boom of the late 19th century served as the price incentive for the expansion of cultivation also played a pivotal role for the rapid development of this region (Varghese, 1971; Nair, 1976).

[18] There has been a rapid expansion of personal loans during this period. Personal loan alone accounts for 24.31 percent of total bank credit for Kerala as against the all India share of 12.25 percent in 2001-02 (Pillai and Shanta, 2005).

[19] This does not mean that supply constraints are not binding but in the long run (Kotz, 2008).

[20] See David Kotz (2008) for a detailed discussion.

[21] Government's current consumption is defined as total spending by the government net of transfer payments and subsidies.

[22] According to one estimate, rubber growers alone lost approximately Rs. 800 crores in this year (Santhakumar & Nair 1999).

[23] After these trade pacts there has been sharp fluctuations in prices of agricultural commodities and increase in farmers' suicide because of indebtedness (Jeromi, 2005).

[24] Kerala has been a consumer state since early 19th century onwards (Ajith, 2002; 6). However, by 1980s Kerala's import of consumer durables and food articles became more pronounced (Isaac, 1992).

[25] Under the Industries (Development & Regulation) Act, 1951, an industrial license is required in respect of a) Items of manufacture falling under the list of compulsory licensing. b) If a non SSI unit intends to manufacture items reserved exclusively for the Small Scale Sector. In addition certain industries are reserved exclusively for the Public Sector. Presently Atomic Energy and Railway Transport come under this category. All Industrial undertakings exempt from obtaining an industrial license are required to file an Industrial Entrepreneur Memorandum (IEM). An acknowledgement is issued immediately on receipt of Part 'A' of the IEM form and no further approval is required, under the Industries (D&R) Act, 1951 (Secretariat of Industrial Assistance, Government of India, 2012).

[26] The planning board survey conducted in 1987 shows that out of 497 sample loaners only 17 percent miss used loan. A study on primary agricultural credit society in Palakkad district by Radhakrishnan and Mukunden in 1987 found no evidence of misuse of loans (cited in Sunanda, 1991:105). A recent study by Nair et.al (2007) on farmers' suicide found that diversion of loans in agriculture sector is less pronounced in Kerala (Nair et.al, 2007).

Chapter 3

Dynamics of Class and Social Inequalities in Kerala: 1983-2010

3.1 Introduction

Of late, Kerala has witnessed a substantial increase in growth and inequality and became one of the most unequal states in India and marked a departure in this aspect from the much celebrated Kerala model of economic development (Subrahmanian et.al., 2008). This warrants a careful look at the inequality trends in Kerala. The main objectives of this chapter are to present and understand inequality trends in different axis and also to present the class and socio-economic structure in Kerala and its changes over the years.

The rest of the chapter is organized as follows. Section two discusses data, definition and limitation. Section three presents a class definition for Kerala. Section four presents the broad inequality trends in Kerala. The class structure and its changes are discussed in section five. Section six presents the socio-economic structure and its changes over the years. The conclusions are presented in the last section.

3.2 Data, Definition and Limitation

The data used in this chapter are from National Sample Survey Office (NSSO) on consumption expenditure data, rounds 38^{th} (1983-84), 50^{th} (1993-94), and 66^{th} (2009-10). In 38^{th} round there are 4395 sample household, out of which 1338 are in urban and 3057 in rural areas. In 50^{th} round, there are 4385 sample households selected in the sample from Kerala out of which 2555 are from rural area and 1830 are from urban area. In 66^{th} round there are 4452 sample households and 1846 are urban households and the remaining 2606 are rural households.

Urban classes including the owner/manager classes and professionals are classified by using occupational data obtained from the National Classification of Occupations (NCO) that are listed in the sample. The field investigator of

NSSO assigns NCO codes based on the principle occupations of the members of the household. The National Industrial Classification Codes (NIC), which is available in the surveys, is used to identify whether one household belongs to manufacturing or service sector in urban area. Landholding data, NSSO survey based questions on the type of household and the NCO codes (for identifying rural professionals) are used to identify the agrarian classes. The agrarian classes identified on the basis of the survey questions on the type of household and landholding are rich farmers (those households which belong to agrarian households and own more than 10 acres of land), middle farmers (those households which own land between 5 and 10 acres), small farmers (those who own between 2 and 5 acres of land), marginal farmers (who own less than 2 acres of land), and agricultural workers (agricultural households which define themselves as workers). This study defines absentee landlords as those households which own more than half an acre of land and engage in non-agricultural activities. The survey questions on social group (scheduled caste,scheduled tribe and other category) and religion are used to arrive at socio-economic characteristics of each household in the survey. The socio- economic groups which are identified in this study are scheduled tribes, scheduled caste, Hindus, Muslims, and Christains. Further disaggregation of Hindus and Christains based on caste hiarchy are not available as NSSO does not provide information on whether the sampled household belongs to forward or backward caste group. However, NSSO included survey questions on other backward classes from 61st round onwards.

Since the upper-end consumption groups are under-represented in the sample, there is an inherent bias in the consumer expenditure surveys of NSSO, therefore, inequality is underestimated (Vakulabharanam, 2010).This has a bearing on determining the relative position of different classes. Moreover, the true extend of inequality cannot be captured through consumption expenditure survays as consumption expenditure is usually more equal than income distribution (ibid).

3.3 Class Definitions for Kerala

Class is one of those concepts used loosely in social sciences. Social scientists, across the ideological spectrum, use a number of class frameworks to define classes in the society. In popular parlance, class is defined in terms of income (upper, middle, lower classes). Sociologists define classes on the basis of power and status. Exponents of subaltern studies define classes as power-based and conscious-based classes (Vakulabharanam, 2010). Anthropologists define classes in terms of mixture of characteristics like occupation, income, wealth, prestige, association, socialization, class consciousness etc., in class classification schema (e.g. Franke, 1993: 90-94).

Karl Marx argues in his Capital Volume I, Volume II and volume III that class is defined at the production site. Workers are a class of people who perform labor and earn wages while generating surplus for the entire spectrum of classes that extract surplus. The surplus extracting classes not only include industrial or agricultural capitalists but also money-lenders, merchants, land owners, share owners, managers, state etc. These groups get a share from the surplus value, which is produced by the workers; money-lenders receive interest, land owners collect rent, merchants receive trading margins, share owners receive dividend, managers receive salaries and the state collects taxes. Though he appreciates the heterogeneity of working class in his writings, Marx could not finish that project - the chapter on class is unfinished after running for only one and half pages. However, orthodox Marxists analyze society without factoring in the heterogeneity of surplus extracting classes and working classes in the analytical schema (Vakulabharanam, 2010). For this study, two types of class schema are used following Vakulabharanam (2010).

The first schema uses broad conscious categories i.e., how society views classes in terms of self-identification of status and power, to arrive at simplified class structure (ibid). This schema identifies six classes, viz., two classes in urban and four classes in rural areas. The classes identified by using this schema

are urban elite (which includes owners, managers and professionals), urban workers (workers other than professionals), rural elite (which include big farmers and nonagricultural elites like professionals and absentee landlords), non-agricultural workers, small farmers and agricultural workers.

The second schema, which proposes a detailed class classification, identifies 17 classes for Kerala. This class schema uses Marx's definition of class - production, appropriation and distribution of surplus determine the classes - to differentiate working classes with other propertied classes (Vakulabharanam, 2010). The widely accepted distinction among workers like professionals, skilled and unskilled; the distinction of workers in service and manufacturing sectors; and the state's failure to implement land reforms are also built into the class schema to capture the heterogeneity within the farming population (ibid). Using these criteria, the classes identified in urban sector are owner/manager, manufacturing professional, skilled manufacturing worker, unskilled manufacturing worker, professionals in service sector, skilled service worker and unskilled service worker. Manager's role in the labour process is supervisory in nature and they live off the surplus created by the (productive) labour and hence they are clubbed together with owners. In agriculture sector, the classes are identified on the basis of ownership of land and whether the household is a net buyer or seller of labour. The landed groups are thus further divided into rich farmer, middle farmer, small farmer and marginal farmer/tenants. The rich and middle farmers are net buyer of labour power and marginal farmers buy and sell labour power. The agricultural workers sell their labour power. The non-agricultural population in rural sector is sub-divided into four classes. These are absentee landlords, non-agricultural self-employed, rural professionals and rural non-agricultural workers (ibid).

3.4 Describing Inequality Trends in Kerala

3.4A Overall Inequality

Table 3.1 presents the overall story of changing inequality in Kerala from

1983-84 to 2009-10. The main observation is that there is an absolute decrease in inequality from 1983-94 to 1993-94 as Gini dropped from 0.338 to 0.316[1]. However, since 1993-94 this inequality story got reversed as Kerala experienced a massive increase in Gini coefficient from 0.316 in 1993-94 to 0.473 during 2009-10. As discussed in Chapter 2, after the economic reforms Kerala's growth has been highly unequal among sectors and the high inequality could be a manifestation of this unequal growth.

3.4B Rural-Urban Axis: Kerala

Table 3.2 presents the rural and urban[2] inequality and also depicts the rural-urban disparity. From table 3.2, it can be observed that urban inequality experienced a sharp decline in the 1980s, as urban Gini declined from 0.391 in 1983-84 to 0.340 during 1993-94. However, the decline in rural inequality is marginal compared to the decline in urban inequality as Gini declined from 0.321 to 0.300 during the same period. The period from 1993-94 to 2009-10 witnessed a sharp increase in inequality in both the sectors. The inequality increased to 0.439 for rural and 0.527 for urban sectors during 2009-10. Table 3.2 shows that the rural–urban disparity i.e., the ratio of urban mean MPCE over rural mean MPCE increased from 1.27 in 1983-84 to 1.41 in 1993-94. The interesting finding is that rural urban disparity increased while the overall, rural and urban inequality decreased in the first period. The second period, 1993-94 to 2009-10 is a mirror image of the first period. When the overall, rural and urban inequality increased phenomenally, the rural – urban disparity decreased from 1.41 in 1993-94 to 1.29 in 2009-10. This is better explained in Chapter 4 through decomposing inequality.

3.4C Regional Inequality: Kerala

As explained in Chapter 2, Kerala is geographically divided into two regions, North and South, on the basis of economic, historical and cultural similarities. Table 3.3 presents the regional inequality in Kerala. Throughout the entire period South Kerala is more unequal than North Kerala. In the first period,

1983-84 to 1993-94, inequality in South Kerala reduced from 0.352 to 0.320. There was no change in North Kerala's inequality as it was stationary at 0.304 during this period. South Kerala experienced a 56 percent increase in inequality as it mounted from 0.320 in 1993-94 to 0.499 in 2009-10. Though not an increase like South Kerala, North Kerala also experienced a significant 25 percent increase in inequality from 0.304 to 0.381 during this period.

3.5 Changing Class Structures

3.5A Simplified Class Structure: Kerala

The simplified class structure is presented in Table 3.4. From the table it can be observed that in terms of the levels of consumption, the urban classes were better placed than their rural counterparts in all the years. As expected, the urban elite classes, which include owners, managers and professionals were better placed among the six classes in all the periods; agricultural workers and non-agricultural workers found themselves placed at the bottom. In terms of the ratio change, which is defined as the rate of change in the ratio of respective/particular class MPCE to the overall population MPCE, it turned out that during 1983-84 to 1993-94 urban elite classes were the biggest gainers. Agricultural worker class also gained during this period. During the period from 1993-94 to 2009-10, in terms of the rate of change, the biggest losers were the agricultural workers. The rural elite classes gained more than any other class during this period. Non-agricultural worker class too gained during this period. The table reveals that there has been a sharp increase in the number of non-agricultural workers and corresponding decline in the number of agricultural workers over the years. The urban elites also registered an increase in their population from 1983-84 to 2009-10. Small peasants registered a decline in their numbers over the years. Detailed class structure gives us better picture about level of consumption and the relative gains by the classes over the years.

3.5B Detailed Class Structure: Kerala

Table 3.5A & 3.5B present detailed class structure in terms of the levels

of consumption expenditure. In 1983-84 the consumption levels of service professionals were the highest among all the classes. In 1993-94 manufacturing professionals also joined the club of high consumption classes along with service professionals. Owner/manager and absentee landlord are the classes that recorded highest level of consumption among all classes in 2009-10. In terms of change (defined as the rate of change in the ratio of class mean to the population mean over the period), it can be observed that the biggest gainer during 1983-84 to 1993-4 is the owner/manager class. The biggest losers during this period are absentee landlord, rich farmer, non-agriculture worker and service unskilled. During 1993-94 to 2009-10 too owner /manager class gained compared to other classes. However, the biggest gainer during this period is the absentee landlord class. The other important gainers during the second period are rich farmers and rural professionals. The losers during this period are manufacturing skilled, manufacturing unskilled, middle farmer, small farmer, marginal farmer and agricultural workers during 1993-94 to 2009-10. The other interesting conclusion that could be drawn from this analysis is that 64.61 percent of households have less than the mean consumption in 1983-84 and in 1993-94, this decreased to 59.33 percent. However, the percentage of households below mean consumption has experienced a sharp increase in 2009-10 as 63.46 percent of total households have less than the overall average consumption.

Another important result from the above table is that the sharp reduction in the number of workers in the agricultural sector and a rapid increase in the number of non-agricultural workers. The most interesting result from the analysis is that during the entire period, agricultural and non-agricultural workers were the groups that had the lowest consumption, and they are increasingly getting pushed to the margins over the years. The detailed class structure shows that it is the increase in the number of owner/manager contributed to the increase in the number of elites which is revealed from the simplified class structure. Urban unskilled manufacturing workers registered an increase in their numbers over the years. Small farmers' and marginal farmers'

number declined over the years. Petty owners' number increased substantially during 1993-94 to 2009-10.

3.6 Changing Socio-Economic Structures:

Table 3.6 throws light on the relative gain of each social group in different periods and the gain of each social group over the periods. It has turned out that Christians and Hindus, as a social group, have cornered most of the benefits of economic growth in all the periods as their MPCE level is higher than the rest of the social groups. Moreover, it is also clear that scheduled caste and scheduled tribes are well below the overall MPCE. It is revealed that Muslims consumption level is not far better than the SC's and ST's. It is also clear that in terms of change Hindus are better off compared to other social groups during the period during 1983-84 to 1993-94. However, during 1993-94-2009-10, Christians gained more as compared to the rest of the groups. It is interesting to note that Muslims along with SC's and ST's as a social group are being relegated in the development process in Kerala[3].

3.7 Conclusions

Kerala witnessed a marginal decline in inequality at the rate of 6.5 percent in the first period from 1983-84 to 1993-94. Post reforms the state experienced a phenomenal increase in inequality at the rate of 49.7 percent from 1993-94 to 2009-10. At the end of this period Kerala Gini reached the level of 0.473, which is comparable to the inequality levels in the US or China. The inequalities in Kerala, as revealed from the inequality trends, have the following characteristics. Though both rural and urban inequalities have declined during 1983-84 to 1993-94, the decline in urban inequality is more pronounced. However, there has been a drastic increase in inequality in both the sectors since 1993-94. The ratio of urban MPCE over rural MPCE shows that the urban-rural divide has worsened during 1983-84 to 1993-94. But the rural urban disparity has declined during the second period in spite of the sharp increase in rural and urban inequality. Southern Kerala followed the same pattern of inequality, which the all-Kerala

registered during 1983-84 to 2009-10. Northern Kerala followed a distinct trend in inequality during the first period; it registered stagnant inequality during 1983-84 to 1993-94 and experienced a phenomenal increase during 1993-94 to 2009-10. The simplified class structure shows that it is the urban elites who registered highest MPCE compared to all other classes in all the periods. The agricultural working class registered the lowest level of MPCE as expected. In terms of relative gain, it is turned out that urban elites and rural elites registered a positive gain in first period (1983-84- 1993-94) and second period (1993-94-2009-10) respectively. This also shows that the decline in rural urban disparity in recent years is not because of the rise in consumption expenditure of all rural population but because of rural elite and non-agricultural workers who have gained 17.69 and 4.26 percent of growth in MPCE respectively from 1993-94 to 2009-10. This is a significant result because the biggest losers in the second period are agricultural workers, which explain the decline in the population share of agricultural workers and a phenomenal increase in the population share of non-agricultural workers. The detailed class structure shows that it is the urban owner/managers, absentee landlords and rural petty owners are the gainers during 1993-94 to 2009-10. During 1983-84 to 1993-94 it was the owner /manager, manufacturing professionals and absentee landlords are the major beneficiaries. Changes in socio-economic structures also narrates that marginal groups in Kerala are getting further marginalized economically. These results are prelude to inequality decomposition results, which are discussed in Chapter 4.

TABLES

Table 3.1: Overall Inequality in Kerala

Sector	1983-84	1993-4	2009-10
Overall	0.338	0.316	0.473

Source: NSSO Unit Record Data; 1983-84(Round: 38) 1993-4(Round: 50) and 2009-10(Round: 66)

Table 3.2 Rural Urban Inequality and Disparity

Year	1983-84	1993-94	2009-10
Urban	0.321	0.300	0.439
Rural	0.391	0.340	0.527
Rural Urban Disparity	1.27	1.41	1.29

Source: NSSO Unit Record Data; 1983-84(Round: 38) 1993-4(Round: 50) and 2009-10(Round: 66)

Table 3.3 Inter-Regional inequality and Disparity

Year	1983-84	1993-94	2009-10
South Kerala	0.352	0.320	0.499
North Kerala	0.304	0.304	0.381
South North Disparity	1.23	1.14	1.69

Source: NSSO Unit Record Data; 1983-84(Round: 38) 1993-4(Round: 50) and 2009-10(Round: 66)

Table 3.4: Simplified Class Structure

(MPCE in Rs) (Base Year=2009-10)

Class	1983-4			1993-4			2009-10			Ratio growth %	
	Population %	MPCE	Ratio	Population %	MPCE	Ratio	Population %	MPCE	Ratio	1983-4 / 1993-4	1993-4 / 2009-10
Urban Elite	3.71	1351.40	1.605	5.14	1889.88	1.87	9.11	3357.13	1.628	16.85	-13.17
Urban Worker	13.84	993.51	1.180	19.32	1300.14	1.29	16.91	2289.66	1.110	9.34	-13.92
Rural Elite	24.84	966.62	1.148	28.32	1019.34	1.01	19.77	2454.23	1.190	-11.89	17.69
Small Peasants	17.39	911.43	1.082	14.51	1022.28	1.01	10.28	2113.76	1.025	-6.28	1.07
Non Agri-worker	15.32	709.41	0.842	18.08	683.91	0.68	34.18	1612.08	0.782	-10.98	4.26
Agri-Worker	24.89	597.78	0.710	14.62	755.79	0.75	9.76	1186.82	0.576	5.63	-15.17
Total	100.00	842.24	1.000	100.00	1008.00	1.00	100.00	2062.12	1.000	N.A	N.A

Source: NSSO Unit Record Data; 1983-84(Round: 38) 1993-4(Round: 50) and 2009-10(Round: 66)

1) N.A = Not Applicable
2) Ratio= Respective Class Mean to Population Mean

Table 3.5 A: Detailed Class Structure
(MPCE in Rs) (Base Year=2009-10)

Class	1983-84			1993-94			Ratio growth
	Population %	MPCE	Ratio	Population %	MPCE	Ratio	1983-84 /1993-94
Owner/Manager	2.61	1104.63	1.312	3.22	1633.49	1.621	23.56
Manufacturing-Professional	0.15	1631.4	1.937	1.13	2145.73	2.129	9.9
Manufacturing-Skilled	6.4	956.64	1.136	7.99	1252.97	1.243	9.44
Manufacturing-Unskilled	3.42	787.21	0.935	3.71	992.17	0.984	5.31
Service-Professional	0.89	2033.17	2.414	0.77	2606.83	2.586	7.13
Service-Skilled	1.69	1520.58	1.805	3.76	1909.77	1.895	4.94
Service-Unskilled	2.34	1015.25	1.205	3.86	1099.97	1.091	-9.47
Urban-Unclassified	0.06	1303.2	1.547	0.02	1375.68	1.365	-11.8
Urban sub-total	17.56	1068.01	1.27	24.46	1424.06	1.413	-6.75
Rich Farmer	0.55	1627.19	1.932	0.42	1569.6	1.557	-19.4
Middle Farmer	2.05	994.81	1.181	0.87	1168.54	1.159	-1.85
Small Farmer	5.76	1052.32	1.249	3.02	1099.18	1.09	-12.72
Marginal Farmer/Tenant	11.63	841.65	0.999	11.5	1002.1	0.994	-0.52
Agri-worker	24.89	597.78	0.71	14.62	755.79	0.75	5.63
Rural Professional	3.54	1416.34	1.682	2.75	1467.1	1.455	-13.45
AbsenteeLL+nonagselfemp	4.73	973.34	1.156	3.34	1295.4	1.285	11.2
AbsenteeLL+Others	2.35	1088.78	1.293	1.75	1052.54	1.044	-19.23
Nonagselfemp (Petty)	9.35	701.85	0.833	7.76	864.23	0.857	2.89
NonAgWorkers	15.32	709.41	0.842	18.08	683.91	0.678	-10.98
RuralUnclassified	2.27	1029.77	1.223	11.42	899.55	0.892	-27.01
Rural sub-total	82.44	796.199	0.95	75.54	888.62	0.882	11.41
Total	100.00	842.24	1.00	100.00	1008.00	1.00	N.A

Source: NSSO Unit Record Data; 1983-84(Round: 38) and1993-94(Round: 50)

1) N.A = Not Applicable
2) Ratio= Respective Class Mean to Population Mean

Table 3.5B: Detailed Class Structure (MPCE in Rs) (Base Year=2009-10)

Class	1993-94			2009-10			Ratio growth
	Population %	MPCE	Ratio	Population %	MPCE	Ratio	1993-94 / 2009-10
Owner/Manager	3.22	1633.49	1.621	6.82	4692.36	2.275	40.42
Manufacturing-Professional	1.13	2145.73	2.129	0.29	3385.31	1.642	-22.88
Manufacturing-Skilled	7.99	1252.97	1.243	5.34	1662.82	0.806	-35.13
Manufacturing-Unskilled	3.71	992.17	0.984	5.05	1297.88	0.629	-36.06
Service-Professional	0.77	2606.83	2.586	0.99	3921.14	1.902	-26.47
Service-Skilled	3.76	1909.77	1.895	2.75	2719.11	1.319	-30.4
Service-Unskilled	3.86	1099.97	1.091	3.73	1978.09	0.959	-12.1
Urban-Unclassified	0.02	1375.68	1.365	1.05	2040.71	0.99	-27.49
Urban sub-total	24.46	1424.06	1.413	26.02	2663.45	1.292	46.51
Rich Farmer	0.42	1569.6	1.557	0.21	4064.41	1.971	26.58
Middle Farmer	0.87	1168.54	1.159	0.63	2281.38	1.106	-4.57
Small Farmer	3.02	1099.18	1.09	1.24	2212.46	1.073	-1.61
Marginal Farmer/Tenant	11.5	1002.1	0.994	9.03	2056.86	0.997	0.33
Agri-worker	14.62	755.79	0.75	9.76	1186.82	0.576	-15.17
Rural Professional	2.75	1467.1	1.455	3.02	3279.03	1.59	9.25
AbsenteeLL+nonagselfemp	3.34	1295.4	1.285	4.19	2329.76	1.13	-12.09
AbsenteeLL+Others	1.75	1052.54	1.044	0.41	5516.01	2.675	156.17
Nonagselfemp (Petty)	7.76	864.23	0.857	10.34	2128.03	1.032	20.36
NonAgWorkers	18.08	683.91	0.678	34.18	1612.08	0.782	4.26
RuralUnclassified	11.42	899.55	0.892	0.97	2768.83	1.343	50.46
Rural sub-total	75.54	888.62	0.882	73.985	1850.68	0.897	-36.47
Total	100.00	1008.00	1.00	100.00	2062.12	1.00	N.A

Source: NSSO Unit Record Data; 1993-94(Round: 50) and 2009-10(Round: 66)

1) N.A = Not Applicable
2) Ratio= Respective Class Mean to Population Mean

Table 3.6: Socio-Economic Group Structure

(MPCE in Rs) (Base Year=2009-10)

Social Group	1983			1993-4			2009-10			Ratio Growth Rates	
	Population %	MPCE	Ratio	Population %	MPCE	Ratio	Population %	MPCE	Ratio	1983-84 / 1993-94	1993-94 / 2009-10
Scheduled Tribe	1.24	660.35	0.78	0.97	847.18	0.84	1.48	1092.65	0.53	-7.2	-36.96
Scheduled Caste	10.83	614.6	0.73	8.97	734.76	0.729	8.73	1121.23	0.54	0.11	-25.41
Hindu	46.93	894.47	1.06	50.85	1045.86	1.038	43.83	2349.62	1.14	2.3	9.82
Muslim	19.89	712.69	0.85	20.75	916.63	0.909	26.73	1509.81	0.73	-7.47	-19.49
Christian	21.11	975.66	1.16	18.46	1147.6	1.138	19.23	2676.51	1.3	1.72	14.01
Total	100.00	842.24	1.00	100.00	1008.00	1.00	100.00	2062.12	1.00	N.A	N.A

Data source: NSSO Unit Record Data; 1983-84(Round: 38) 1993-4(Round: 50) and 2009-10(Round: 66)

1) N.A = Not Applicable

2) Ratio= Respective Group Mean to Population Mean

Table 3.7: Caste Structure

(MPCE in Rs) (Base Year=2009-10)

Caste group	2004-5			2009-10			Ratio Growth Rate
	Population%	MPCE	MPCE Ratio	population %	MPCE	MPCE Ratio	
Upper Caste Hindus	14.64	1854.13	1.23	13.09	3379.48	1.64	33.56
Backward Class Hindus	30.82	1482.63	0.98	30.74	1911.26	0.93	-5.62
Scheduled Castes	10.5	1055.76	0.70	8.17	1116.30	0.54	-22.56
Scheduled Tribes	1.58	825.07	0.55	1.34	1067.13	0.52	-5.22
Muslims	23.67	1354.00	0.90	26.97	1509.15	0.73	-18.32
Upper Caste Christians	12.99	1808.96	1.20	13.84	2776.02	1.35	12.37
Backward Class Christians	5.8	1773.44	1.17	5.85	2318.38	1.12	-4.24
Total	100.00	1510.56	1.00	100.00	2062.12	1.00	N.A

Data Source: NSSO Unit Record Data; 2004-05(Round: 61) and 2009-10(Round: 66)

1) N.A = Not Applicable

2) Ratio= Respective Group Mean to Population Mean

ENDNOTES

[1] The introduction of welfare measures like agricultural worker pension, unemployment insurances (unemployment dole) scheme in 1980s and the strengthening of public distribution system are the possible explanations for the decline in inequality during the period from 1983-84 to 1993-94. The 1980s witnessed two remarkable reforms in Kerala. One is pensions for agricultural workers for those above 60 years of age and the second one is unemployment insurance scheme. This pension covered 17 percent of total labour force in the rural area in 1987 and unemployment doles were paid to 2,05,556 persons in the same year (Franke,1994:179-180).

[2] Kerala has a dispersed settlement pattern unlike the rest of India. As a result, the sharp rural-urban difference cannot be observed (Franke, 1993). Moreover, there are regions which have both urban and rural characteristics in Kerala because of the rapid urbanization process (ibid). NSSO cannot include thse charactristics in classifying region as they follows the criterian used by Population Census in classifying the region.

[3] Table 3.7 shows that caste based hierarchies still persists in Kerala and it got worsened over the years.

Chapter 4

Explaining the New Patterns of Growth and Inequality (I): Analysis of Secondary Literature and Data Sources

4.1 Introduction

There are studies, which point out that there has been a substantial increase in between-class and socio-economic group inequality in recent years (e.g. Aravinden, 2006; Subrahmanian et.al., 2008). The increase in inequalities can be either due to increase in within-class/group or between-class/group inequality. None of the earlier studies have attempted to examine the nature of increasing inequality in Kerala along these lines. This chapter attempts to fill this lacuna. Moreover, the need for field research in explaining the new growth and inequality dynamics is discussed in the chapter. The rest of the chapter is organized as follows. Section two recounts the pattern of economic growth. Section three presents received views on inequalities in Kerala. Section four explains the Yitzhaki method of Gini decomposition. Section five describes the Gini decomposition results for Kerala. Section six confirms between-class inequality, which is evident from the class structure based on MPCE and from wage data of different occupations. Section seven presents the unresolved issues in making sense of the new patterns of growth and inequality through secondary data analysis and the last section presents the conclusion.

4.2 Pattern of Economic Growth in Kerala

As discussed earlier in Chapter 2, Kerala economy underwent three distinct regimes of growth. First phase experienced moderate growth from 1960-61 to 1971-72, which was followed by a low growth phase from 1971-72 to 1987-88. The third phase is a high growth one from 1987-88 to 2009-10. All sectors grew in tandem during the first phase of growth (1960-61 to 1971-72). During 1971-72 to 1987-88 all the sectors except tertiary sector experienced low or negative growth. In the high growth regime i.e., between 1987-88 and 2009-10 all sectors

and sub-sectors registered a positive growth and overall growth was guided by the tertiary sector.

The period from 1960-61 to 2009-10 marked drastic structural changes in the economy in terms of sector-wise contribution to NSDP as shown in Chapter 2 (Table 2.2). The primary sector experienced a secular decline over the years. This is because of the drastic decline in agriculture sector's contribution to NSDP. However, the tertiary sector registered a substantial increase in its contribution to NSDP during this period. The sectors like construction, transport, storage and communication, trade, hotels and restaurants, and other services in tertiary sector experienced increase in their contribution to overall NSDP. The secondary sector's contribution to NSDP remained more or less same over the years. From being an outlier in the overall growth process of the Indian economy, Kerala economy appears to have fallen in line with the rest of the country over the last two decades.

4.3 Received Views on High Inequality

There are a few studies on worsening inequalities in Kerala. The field research based study conducted by Kerala Sasthra Sahitya Parishath (KSSP) in 2006 identified the reasons for high inequality in Kerala. It points out high indebtedness among low-income groups as a result of increase in the cost of health care and privatization of education, and also focuses on the disparities in earnings among different occupational groups (Aravinden, 2006). Some studies identified neoliberal policies followed by the federal and the state government as one of the reason for rising inequality (Subramanian et.al., 2008; Shyam, 2010; Oommen, 2008). Though these studies recognized the rise in between-class/group inequality in recent years, the reasons for the rise in between and within-class inequality in Kerala have not been understood systematically.

4.4 Yitzhaki Methodology of Decomposing the Gini Coefficient

In order to make sense of the between and within-class inequalities, the

Yitzhaki methodology (1994) is utilized in this chapter. A brief discussion of this methodology is presented below.

The Gini decomposition analysis proposed by Shlomo Yitzhaki is to split overall inequality into between-group/class component and within-group/class components and to estimate how much of the total inequality can be explained by the between-group/class and within-group/class components. Typically, Gini decomposition yields three components (within, between and overlapping). Yitzhaki presents an alternative method that yields two components that can be broadly interpreted as within and between components. Moreover, this method offers a framework to examine the stratification dynamics of the population and its sub-groups. A brief description on decomposing the Gini coefficient is given in Appendix 4.1.

After the economic reforms, as discussed in the Chapter 3, Kerala's growth has been highly unequal among sectors. By decomposing this inequality along multiple axes such as rural-urban, class and socio-economic groups, one could break down the increase of inequality into comprehensible structures to capture the effects of growth. Using the Yitzhaki method, various decomposition results are presented below.

4.5 Kerala Inequality Decomposition Results With Yitzhaki Method

4.5A Rural-Urban Decomposition

From Table 4.1 it is clear that more than 96 percent of overall inequality is contributed by within-group component i.e., within-urban inequality and within-rural inequality in all the years. Though rural contribution to overall inequality is declining over the years, it is still accounting for near 65 percent of overall inequality. Between-group inequality is showing a rising trend, but it is only negligible 3 percent of overall inequality. In terms of overlap indices, rural overlap index crossed one, which indicates that rural sector is polarized and the decline in urban overlap index suggests that there is a greater stratification in urban

sector vis-à-vis the rural in all the periods. Decomposing inequality along class lines will give further details about this phenomenon.

4.5B Regional Decomposition

Table 4.2 presents the results of between-regional decomposition in Kerala. More than 90 percent of overall inequality is explained by within component of regional inequality in all the periods. During the first period (1983-1994) both between and within-regional inequalities declined in absolute terms, although both the components increased in absolute terms after that. However, greater proportion of overall inequality in the later period is explained by the between-regional component. The between-regional component increased from 1.36 percent during 1993-94 to 8.39 percent during 2009-10 which indicates a rising trend in the regional differences in Kerala.

4.5C Simplified Class Decomposition

Table 4.3 throws light on the simplified class Gini decomposition. It can be observed that the classes like small peasants, agricultural workers and non-agricultural workers contributed substantially to the rate of growth of overall inequality during 1983-84 to 1993-94. The classes like urban elites, urban workers and rural elites contributed negatively to the growth rate of overall inequality. During 1993-94 to 2009-10 non-agricultural workers' contribution to the overall increase in inequality is 48.41 percent followed by urban workers (21.02 percent) and urban elites (20.38 percent). Both the between-class and within-class components declined in the first period in absolute terms (1983-84 to 1993-94) and increased phenomenally in the second period (1993-94 2009-10). However, the increase in within-class inequality is quite significant. The main contribution to within-class component comes from the rural non-agricultural workers, rural elites, urban elites and urban workers. During the first period Gini indices of all classes except rural elite had declined. However, the second period witnessed a sharp increase in the Gini indices of all classes. In terms of overlap index, all the classes became less stratified except small peasant class. Small peasant class

experienced stratification in its ranks during this period. In the second period urban elite got stratified and urban workers agricultural workers and non-agricultural workers became polarized. Detailed decomposition results would give a clearer picture about the stratification dynamics in Kerala's economy.

4.5D Detailed Class Decomposition

Tables 4.3A and 4.3B present the decomposition of detailed classes. Agricultural workers and non-agricultural workers registered the highest contribution to the growth rate of Gini-coefficient from 1983-84 to 1993-94 as mentioned in the above paragraph. The decomposition results from 1983-84 to 1993-94 show that classes like manufacturing professional workers, service professional workers, service skilled workers, absentee landlords, non-agricultural workers and rural professionals experienced an increase in within-class inequality. All the other classes experienced a decline in within-class inequality during this period. The classes like manufacturing skilled, manufacturing unskilled, service professionals, middle farmers, small farmers, agricultural workers became more stratified in the first period. Another interesting result is that non-agricultural self-employed class became more polarized during 1983-84 to 1993-94. This period witnessed an increasing within-class inequality. Marginal tenant farmer, non-agricultural worker and agricultural worker classes are contributing the major portion of within-class inequality during this period.

During 1993-94 to 2009-10, as mentioned earlier, non-agricultural workers registered the highest contribution to overall increase in Gini coefficient. Owners/managers (37.58 percent) and non-agricultural self-employed (18.47 percent) are the second and third highest contributors respectively to the growth rate of Gini-coefficient. The other important results of detailed decomposition of Gini during 1993-94 to 2009-10 are as follows: Firstly, there has been an increase in between-class inequality during the period. Secondly, though all classes in Kerala have experienced a rise in inequality, classes like non-agricultural self-employed, non-agricultural worker, agricultural worker and rural professional

classes experienced a substantial increase in within-class inequality. Thirdly, manufacturing skilled, manufacturing unskilled, service professional, middle farmer, small farmer and agricultural worker classes became less stratified as the overlap indexes increased. The classes like owner/manager, service professionals, skilled workers (service), middle farmer, rural professional and non-agricultural petty owners experienced stratification as these classes' overlap index declined during this period. Finally, the overlap index shows that manufacturing skilled workers, marginal farmers, agricultural workers and non-agricultural workers have become more polarized. Moreover, 26.50 percent of intra-group inequality is contributed by non-agricultural worker class alone.

4.5E Urban Class Detailed Decomposition

Table 4.5 furnishes the results of urban decomposition taking urban sector as a self-contained whole from 1983-84 to 1993-94 and from 1993-94 to 2009-10. Inferences that can be drawn from the urban decomposition for the period between 1983-84 and 1993-94 are: a) In both the periods, urban inequality in terms of Gini coefficient is higher than the overall Gini. But urban inequality registered a sharp decline during this period. b) Between-class inequality increased from 14.96 percent to 16.25 percent. This is because service professionals and manufacturing professionals grew in large numbers as compared to the rest of the urban classes. c) The classes like manufacturing skilled, manufacturing unskilled and service unskilled workers experienced stratification during this period.

The results of urban decomposition from 1993-94 to 2009-10 offers us the following inferences: Firstly, inequality has increased substantially as Gini index increased from 0.343 to 0.527 and this is the highest urban inequality among all the states in India in 2009-10. Secondly, some classes, which includes owner/manager, manufacturing professional, manufacturing unskilled, service skilled workers, experienced stratification. Service unskilled worker class experienced polarization as its overlap index crossed one. Lastly, between-class inequality has increased substantially as the service skilled and owner-manager

class performed better than the rest of the classes during this period.

4.5F Rural Class Detailed Decomposition

Table 4.6 shows the rural decomposition by taking rural sector as a self-contained whole during the period from 1983-84 to 1993-94 and from 1993-94 to 2009-10. The rural sector witnessed a significant increase in within class inequality in this period. The rural Gini declined from 0.32 to 0.30 and middle farmer, small farmer, agricultural worker, non-agricultural worker have experienced stratification during the first period. It can be observed that the inequality in rural sector has increased as Gini increased to 0.439 during 2009-10. The classes like middle farmer, non-agricultural labour, non-agricultural self-employed, absentee landlord and others and rural professionals have experienced stratification during 1993-94 to 2009-10. Rich farmer, agricultural worker and non-agricultural workers have experienced polarization during this period. However, in all the periods the rural inequality is lower than the overall inequality in Kerala.

4.5G Agrarian Classes Decomposition

Table 4.7 presents the decomposition results of the agrarian class as a separate whole during the period from 1983-84 to 2009-10. The overall agrarian class inequality has decreased as Gini index declined from 0.309 during 1983-84 to 0.284 during 1993-94. As in the case of rural sector, agricultural sector has also experienced a rise in within-class inequality. Middle farmer, small farmer and agricultural worker experienced stratification. During the second period, the inequality among agrarian classes increased sharply as Gini coefficient increased from 0.284 during 1993-94 to 0.430 during 2009-10. The classes like middle farmer and marginal farmer experienced stratification in terms of consumption, rich farmers became less stratified and agricultural workers experienced polarization during the second period. Within-class inequality explains the major part of overall inequality and it has been increasing over the years. Increased inequality among marginal farmers, agricultural workers and small farmer classes

explains the overall intra-class inequality in agricultural sector.

4.5H Rural Non-Agrarian Class Decomposition

Table 4.8 shows that overall inequality has declined as Gini index dropped from 0.331 to 0.313 during the period from 1983-84 to 1993-94, and on the other hand, the Gini increased rapidly to 0.441 during 2009-10. However, the level of inequality in this sector is less than overall Kerala inequality in all the periods. Another fascinating result which came from the analysis is that the proportion of between-class and within-class inequality increased drastically over the years and explains around 90 percent of overall nonagricultural sector's inequality. It is also clear that non-agricultural self-employed, rural professionals and absentee landlord and others experienced stratification. Non-agricultural workers, who experienced polarization, explain 54.70 percent of intra class inequality in 2009-10.

4.5I Socio-Economic Inequality

Socio-economic characteristics based classification of households is also used here to understand the dynamics in inequalities and the changes in socio-economic structure over the years. This is because caste hierarchies play an important role in sociopolitical and economic life of the people in this part of the world. Analyzing inequality on a social category axis gives an idea about the changes in inequality between and within-social categories. Table 4.9 presents changes in inequality between and within-social categories. During the period from 1983-84 to 1993-94 the intra-social group component contribution to total inequality increased by one percentage point and it explains 95 percent of the total inequality. Moreover, Hindus contribute half of the total intra group inequality. In both the years ST's and Muslims are polarized and SC's became stratified. However, Hindus and Christians experienced less stratification during the period from 1983-84 to 1993-94. During the period from 1993-94 to 2009-10, intra group inequality dropped from 95.95 percent to 92.69 percent. Hindus as a social group contributed 56 percent of within social group inequality. Hindus and Christians

experienced stratification and became more unequal. ST's and Muslims experienced polarization in their ranks during the second period. The increase in the consumption expenditure of Christians and Hindus than the rest explains the increase in between-group inequality during both the periods (see Table 3.5; Chapter 3).

4.6 Kerala's Inequality: What Does the Wage Data Show?

In this section, the between-class disparity in Kerala, which turned out to be significant in the class-based Gini decomposition analysis, is confirmed by using data from non-consumption expenditure data sources, particularly from daily wage/income data[1]. All the figures are in 2009-10 prices.

It has been argued that wages in Kerala are higher than the all India average because of the presence of strong trade unions (Jose, 1974). Trade union movement has lost its vigor compared to 1960s and 1970s, which is evident from the fact that the number of strikes and the number of man days lost in organized industrial sector has dropped rapidly since 1980 (see Table 4.10). Still Kerala's wage rates are among the highest in the country (Heller, 1996). It is also very well known that wage rates across markets are mutually related and operate through feedback mechanism which means that wage increase in one occupation pass on to another in Kerala (Krishnan, 1991). This shows that the spatial boundaries and information asymmetries in the traditional labour market are absent in Kerala because of strong worker solidarity, awareness of wage legislation, high level of literacy etc. (Heller, 2000:181). However, the difference in wage rates among different occupations, as revealed from the data, is on the rise. This section captures the inequality through wage differences across occupations.

Table 4.11 presents the income/wage rates among different occupational groups in Kerala. It is quite evident that in all the years there is a marked disparity in income/wage rates among different occupational groups in Kerala[2]. This is evident from the increasing standard deviation of wage rates in each year. The standard deviation of wages is 4.09 in 1983-84, 5.23 in 1993-94, and it increased

to 6.21 in 2009-10. In all the years, urban salaried employees in the service sector registered the highest income per day and rural agricultural labour registered the lowest income. Moreover, it is also revealed that the real income/wage rate has increased for all the occupations over the years.

The rate of growth of wages differs from one sector to other and from one occupation to another. Table 4.12 shows the growth rate of wages among different sectors in Kerala. The salaried employees in all the sectors experienced a high growth rate in their daily income as compared to the workers during the period from 1983-84 to 1993-94. However, in the subsequent period, the workers' wage rate grew faster than the salaried employees' daily income. This rapid increase in workers' wage rates in recent years has been well documented. It is explained that the increased demand for casual labourers, particularly in rural areas, is pushing the wage rates upward (Nair, 1999:265). The high growth rate of urban salaried employees' income in industrial sector and the slow growth of rural agricultural wages contributed to the increase in income/wage differential during 1983-84 to 1993-94. However, from the growth rate estimates it turned out that the high growth rate of agricultural wages and the low growth of urban worker's wage in the industrial sector are the reasons for high income differential since 1993-94.

The wage rates of both skilled and unskilled workers in the non-agricultural sector have increased over the years. This is evident from the Table 4.13 and Table 4.14. Wage rate of rural skilled workers increased from Rs. 149.35/day in 1983-84 to Rs.193.88/day in 1993-94 and further increased to Rs.338.67/day in 2009-10, owing to the recent construction boom in the region. The wage rate of unskilled workers in rural sector too increased rapidly during this period from Rs.115.57/day in 1983-84 to Rs.127.51/day in 1993-94 and to Rs.247.15/day in 2009-10. However, the growth rate of wages has been less than the rate of growth of consumer price index, which indicates that the workers did not benefit out of the increase in their wage rate as the inflation eroded their real purchasing power.

4.7 Unresolved Issues from the Secondary Data Analysis in Understanding the New Patterns of Growth and Inequality in Kerala

From the secondary data, as discussed in Chapter 2, we can see that the recent high growth was fuelled by high level consumption expenditure and investment by piecing together different secondary datasets on consumption expenditure, investments in different sectors, government expenditure, export and imports. In an economy such as Kerala's, which imports a majority of its goods and services, the increase in consumption expenditure may not necessarily get translated into an increase in aggregate demand. This warrants a detailed investigation on the structure of consumption expenditure. Moreover, the possible relationship between remittances on the one hand and the increase in investment and consumption expenditure on the other has to be ascertained to prove that migration and the consequent flow of remittance played a crucial role in growth turnaround.

From the above discussion on inequality, the between-class inequality, within-class inequality, polarization and stratification of classes have come to the fore. The increase in between-class inequality can be explained by the relative gain of urban elites and the relative loss of working classes during 1983-84 to 1993-94, and the relative gain of urban and rural elites and relative loss of workers during 1993-94 to 2009-10. However, the explanations for stratification and polarization and the resultant high contribution to within-class inequality are not yet clear. An extensive field study is imperative to understand the following factors: major components of household consumption expenditure, relationship between remittances, consumption expenditure and household investments stratification, polarization and within-class dynamics.

4.8 Conclusion

To recapitulate the argument in the chapter, Kerala started to grow exponentially after a prolonged stagnation during 1970s and mid-1980s. During this high growth phase the state witnessed drastic changes in terms of inequality.

Kerala registered a decline in inequality from 1983-84 to 1993-94 as Gini dropped from 0.338 to 0.316, and a worsening of inequality between 1993-94 and 2009-10 with a substantial increase in Gini coefficient to 0.473 during this period. The inequalities in Kerala, as revealed from the decomposition analysis, have the following characteristics. More than 95% of total inequality is explained by the within-rural and within-urban component in all the years. It is also clear that the recent high growth regime in Kerala witnessed a sharp polarization in rural sector and the stratification in urban sector as revealed from the analysis. The north-south inequality decomposition results show that regional inequality is on the rise as the between-region component increased substantially over the years. The class-wise decomposition results reveal that within-class components explain major part of overall inequality and this component has increased. All the classes experienced a decline in within-group inequality during 1983-1994, and an increase in the same after that. The classes like manufacturing skilled workers, manufacturing unskilled workers, service professionals, middle farmers and small farmers experienced stratification and agricultural and non-agricultural workers experienced polarization in their ranks during 1993-2010. Major parts of within-class inequality are contributed by owner/ managers, marginal farmers, absentee landlords, petty owners, agricultural and non-agricultural workers. Among agrarian and non-agrarian classes, the within-class inequality has increased over the years. Moreover, urban inequality is higher than the overall inequality in all the years. The growing differences in wage rates among different occupational groups confirm the existences of between-class inequality, which is revealed from the class structure. The high contributions of non-agricultural workers and owner/managers to the growth in overall inequality in recent years point towards a growth inequality nexus in Kerala.

The importance of field-based study is to supplement the understanding stated below. It is very well known that Kerala is a net importer of both durables and non-durable goods. If major part of consumption expenditure is spent on imported goods and services, the consumption expenditure cannot be the source of

such high growth as what Kerala has experienced. The possible relationships among remittances and consumption expenditure, and remittances and household investments have to be understood properly for better understanding the sources of growth. Moreover, polarization and stratification dynamics cannot be understood clearly without visiting the field. The results of such a field exercise are presented in the next chapter.

APPENDIX 4.1

Using the Yitzhaki decomposition methodology (Yitzhaki, 1994), the G can be split into between-group inequality (I_b) and within-group inequality [the remainder (I_r)]

$$G = I_b + I_r \tag{4.1}$$

The between-group inequality can be estimated as:

$$I_b = \frac{2\,\mathrm{cov}(\mu_i, \overline{F_{oi}}(y))}{\mu}, \tag{4.2}$$

Where y denotes consumption, μ is average consumption for the entire population, μ_i is average consumption for group 'i', and $\overline{F_{oi}}(y)$ is the mean/expected rank of group 'i' in the overall distribution.

The within component can be estimated as:

$$I_r = \sum_i s_i G_i O_i, \tag{4.3}$$

Where, s_i is the share of group i in total consumption, G_i is the Gini coefficient of group i, and O_i is the overlap index for group 'i'. The overlap index measures the degree to which each sub-groups in the population are stratified. The overlap index for group 'i' can be defined as:

$$O_i = \frac{\mathrm{cov}_i(y, F_{oi}(y))}{\mathrm{cov}_i(y, F_i(y))}, \tag{4.4}$$

Where $F_{oi}(y)$ is the cumulative distribution (ranks) of overall population, F_i is the cumulative distribution (ranks) of sub group 'i'.

The value of overlap index O_i ranges from a positive number to a maximum of 2. If As the value of O_i approaches to a minimum value, then the group 'i' is a separate stratum in the overall distribution. Group 'i' would be polarized with two different average

consumption levels if the value of O_i crosses 1 (Milanovic et.al., 2002; 162–163).

The overlap index (4.4) can be further decomposed to identify the overlapping of sub-group i with all other sub-groups that comprise the population. Hence, total overlapping of sub-group i, O_i, is composed of overlapping of i with all sub-group, including group i itself. This further decomposition of O_i is:

$$O_i = \sum_j p_j\, O_{ij} = p_i O_{ii} + \sum_{j \neq i} O_{ij} = p_i + \sum_{j \neq i} p_j O_{ij} \qquad (4.5)$$

Where, $O_{ij} = \frac{cov_i(y, F_j(y))}{cov_i(y, F_i(y)}$ is the group by group overlap index; overlapping of group j by group i and p_i is share of group i in overall population (Frick et.al. 2004).

TABLES

Table 4.1: Decomposition Results I: Rural Urban

Sector	1983-84					1993-4					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.338		0.34	100.00		0.316		0.316	100.00		0.473		0.473	100.00
Within-Sector				0.33	98.29				0.307	97.08				0.458	96.96
Rural	0.786	0.321	1.000	0.25	75.99	0.71	0.30	1.01	0.215	69.89	0.664	0.439	1.016	0.296	64.64
Urban	0.214	0.391	0.956	0.08	24.01	0.29	0.34	0.93	0.093	30.11	0.336	0.527	0.915	0.162	35.36
Between-Sector				0.01	1.71				0.009	2.92				0.014	3.04

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.2: Decomposition Result II: Between Region

Region	1983-84		1993-94		2009-10	
	Gini	%	Gini	%	Gini	%
Gini Overall	0.338	100.00	0.316	100.00	0.473	100.00
Within-region	0.331	97.83	0.312	98.64	0.433	91.61
Between-region	0.007	2.17	0.004	1.36	0.040	8.39

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.3: Decomposition Result III: Simplified Class

Class	1983-84					1993-94					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	Contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.338		0.338	100.00		0.316		0.316	100.00		0.473		0.473	100
Within class				0.300	88.65				0.282	88.99				0.424	89.71
Urban Elite	0.057	0.402	0.804	0.019	6.33	0.081	0.376	0.785	0.024	8.48	0.148	0.517	0.728	0.056	13.16
Urban Worker	0.157	0.379	0.983	0.058	19.33	0.210	0.318	0.945	0.063	22.38	0.188	0.515	0.993	0.096	22.62
Rural Elite	0.287	0.329	0.904	0.085	28.33	0.305	0.329	0.973	0.098	34.68	0.235	0.490	0.874	0.101	23.74
Small Peasants	0.190	0.318	0.910	0.055	18.33	0.157	0.287	0.906	0.041	14.48	0.105	0.462	0.994	0.048	11.40
Non Agriworker	0.130	0.308	1.017	0.041	13.67	0.117	0.251	0.968	0.028	10.07	0.267	0.383	1.014	0.104	24.46
Agri Worker	0.178	0.250	0.936	0.042	13.00	0.131	0.231	0.925	0.028	9.91	0.056	0.328	1.063	0.020	4.62
Between-class				0.038	11.35				0.035	11.01				0.049	10.29

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.4A: Decomposition Results IV: Detailed Class

Class	1983-4					1993-4				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall- Gini		0.338		0.338	100.00		0.316		0.316	100.00
Within class				0.271	80.11				0.261	82.58
Owner/Manager	0.033	0.361	0.856	0.010	3.76	0.044	0.347	0.859	0.013	5.01
Manufacturing-Professional	0.003	0.326	0.460	0.000	0.15	0.020	0.361	0.685	0.005	1.91
Manufacturing-Skilled	0.070	0.376	0.980	0.026	9.50	0.084	0.279	0.909	0.021	8.10
Manufacturing-Unskilled	0.031	0.340	1.041	0.011	4.01	0.031	0.255	0.988	0.008	2.96
Service-Professional	0.021	0.400	0.579	0.005	1.76	0.017	0.421	0.554	0.004	1.49
Service-Skilled	0.029	0.319	0.631	0.006	2.18	0.060	0.397	0.736	0.018	6.70
Service-Unskilled	0.027	0.372	0.947	0.010	3.54	0.035	0.252	0.961	0.009	3.28
Urban-Unclassified	0.001	0.108	1.613	0.000	0.06	0.000	0.223	0.929	0.000	0.02
Rich Farmer	0.011	0.345	0.377	0.001	0.52	0.007	0.263	0.480	0.001	0.34
Middle Farmer	0.024	0.264	0.771	0.005	1.83	0.011	0.249	0.757	0.002	0.78
Small Farmer	0.073	0.351	0.873	0.022	8.21	0.035	0.215	0.678	0.005	1.95
Marginal Farmer/Tenant	0.117	0.292	0.917	0.031	11.56	0.122	0.303	0.951	0.035	13.41
Ag worker	0.178	0.250	0.936	0.042	15.35	0.131	0.231	0.925	0.028	10.68
Rural Professional	0.060	0.311	0.621	0.012	4.29	0.043	0.351	0.800	0.012	4.58
Absentee LL+non-ag selfemp	0.055	0.317	0.830	0.014	5.35	0.046	0.411	0.906	0.017	6.52
Absentee LL+Others	0.031	0.291	0.752	0.007	2.47	0.020	0.267	0.842	0.004	1.68
Non-ag self emp (Petty)	0.079	0.271	0.963	0.021	7.58	0.071	0.285	1.001	0.020	7.73
Non Ag Workers	0.130	0.308	1.017	0.041	15.03	0.117	0.251	0.968	0.028	10.86
Rural Unclassified	0.028	0.321	0.861	0.008	2.85	0.109	0.294	0.983	0.031	12.01
Between-class				0.067	19.89				0.055	17.42

Source: NSSO Unit Record Data; 1983-84(Round: 38) and NSSO-1993-4(Round: 50)

Table 4.4B: Decomposition Results IV: Detailed Class

class	1993-4					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.316		0.316	100.00		0.473		0.473	100
Within class				0.261	82.58				0.391	82.81
Owner/Manager	0.044	0.347	0.859	0.013	5.01	0.155	0.655	0.704	0.072	18.27
Manufacturing-Professional	0.020	0.361	0.685	0.005	1.91	0.005	0.204	0.391	0.000	0.10
Manufacturing-Skilled	0.084	0.279	0.909	0.021	8.10	0.043	0.341	0.989	0.015	3.71
Manufacturing-Unskilled	0.031	0.255	0.988	0.008	2.96	0.032	0.306	1.026	0.010	2.55
Service-Professional	0.017	0.421	0.554	0.004	1.49	0.019	0.461	0.618	0.005	1.38
Service-Skilled	0.060	0.397	0.736	0.018	6.70	0.036	0.357	0.667	0.009	2.21
Service-Unskilled	0.035	0.252	0.961	0.009	3.28	0.036	0.433	0.972	0.015	3.85
Urban-Unclassified	0.000	0.223	0.929	0.000	0.02	0.010	0.352	0.918	0.003	0.86
Rich Farmer	0.007	0.263	0.480	0.001	0.34	0.004	0.613	0.864	0.002	0.57
Middle Farmer	0.011	0.249	0.757	0.002	0.78	0.007	0.279	0.688	0.001	0.34
Small Farmer	0.035	0.215	0.678	0.005	1.95	0.013	0.441	0.978	0.006	1.47
Marginal Farmer/Tenant	0.122	0.303	0.951	0.035	13.41	0.090	0.453	0.999	0.041	10.41
Agworker	0.131	0.231	0.925	0.028	10.68	0.056	0.328	1.063	0.020	5.00
Rural Professional	0.043	0.351	0.800	0.012	4.58	0.048	0.479	0.597	0.014	3.51
AbsenteeLL+nonagselfemp	0.046	0.411	0.906	0.017	6.52	0.047	0.445	0.930	0.020	5.01
AbsenteeLL+Others	0.020	0.267	0.842	0.004	1.68	0.011	0.548	0.339	0.002	0.52
Nonagselfemp (Petty)	0.071	0.285	1.001	0.020	7.73	0.107	0.482	0.957	0.049	12.59
NonAgWorkers	0.117	0.251	0.968	0.028	10.86	0.267	0.383	1.014	0.104	26.50
RuralUnclassified	0.109	0.294	0.983	0.031	12.01	0.013	0.477	0.735	0.005	1.16
Between-class				0.055	17.42				0.081	17.19

Source: NSSO Unit Record Data; 1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.5: Decomposition Result V: Detailed Urban Class Decomposition

Class	1983-84					1993-94					2009-10				
	consumption share	Gini	Overlap Index	Contribution	%	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall Gini				0.390	100				0.343	100		0.527		0.527	100.00
Within class				0.332	85.04				0.288	83.75				0.429	81.52
Owner/Manager	0.154	0.361	0.922	0.051	15.42	0.151	0.347	0.954	0.050	17.39	0.462	0.655	0.830	0.251	58.44
Manufacturing-Professional	0.013	0.326	0.557	0.002	0.70	0.070	0.361	0.797	0.020	6.95	0.014	0.204	0.479	0.001	0.32
Manufacturing-Skilled	0.326	0.376	1.012	0.124	37.37	0.288	0.279	0.954	0.076	26.56	0.128	0.341	0.990	0.043	10.07
Manufacturing-Unskilled	0.143	0.340	1.035	0.050	15.18	0.106	0.255	0.972	0.026	9.10	0.095	0.306	0.969	0.028	6.53
Service-Professional	0.096	0.400	0.667	0.026	7.74	0.057	0.421	0.675	0.016	5.66	0.056	0.461	0.722	0.019	4.36
Service-Skilled	0.137	0.319	0.710	0.031	9.33	0.206	0.397	0.848	0.069	24.15	0.108	0.357	0.761	0.029	6.83
Service-Unskilled	0.127	0.372	0.989	0.047	14.06	0.122	0.252	0.950	0.029	10.12	0.106	0.433	1.027	0.047	11.03
Urban-Unclassified	0.004	0.108	1.529	0.001	0.21	0.001	0.223	1.068	0.000	0.07	0.031	0.352	0.959	0.010	2.42
Between-class				0.058	14.96				0.056	16.25				0.097	18.48

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.6: Decomposition Result VI: Detailed Rural Class Decomposition

Class	1983-84					1993-94					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.32		0.32	100.00		0.30		0.30	100.00		0.439		0.439	100.00
Within-class				0.26	80.47				0.26	85.72				0.387	88.22
Rich Farmer	0.014	0.345	0.353	0.00	0.65	0.010	0.263	0.439	0.00	0.44	0.006	0.613	0.831	0.003	0.83
Middle Farmer	0.031	0.264	0.764	0.01	2.43	0.015	0.249	0.731	0.00	1.07	0.010	0.279	0.665	0.002	0.50
Small Farmer	0.092	0.351	0.862	0.03	10.82	0.049	0.215	0.652	0.01	2.69	0.020	0.441	0.958	0.008	2.19
Marginal Farmer/Tenant	0.149	0.292	0.915	0.04	15.39	0.172	0.303	0.934	0.05	18.84	0.136	0.453	0.980	0.060	15.54
Agri-worker	0.227	0.250	0.948	0.05	20.75	0.184	0.231	0.947	0.04	15.63	0.085	0.328	1.083	0.030	7.76
Rural Professional	0.076	0.311	0.606	0.01	5.57	0.060	0.351	0.767	0.02	6.28	0.072	0.479	0.552	0.019	4.93
AbsenteeLL+nonagselfemp	0.070	0.317	0.820	0.02	7.05	0.065	0.411	0.872	0.02	8.98	0.071	0.445	0.908	0.029	7.44
AbsenteeLL+Others	0.039	0.291	0.741	0.01	3.24	0.028	0.267	0.817	0.01	2.33	0.016	0.548	0.285	0.003	0.67
Nonagselfemp (Petty)	0.100	0.271	0.968	0.03	10.17	0.100	0.285	0.997	0.03	11.01	0.161	0.482	0.925	0.072	18.51
NonAg Workers	0.166	0.308	1.023	0.05	20.18	0.165	0.251	0.976	0.04	15.66	0.402	0.383	1.004	0.155	39.95
Rural Unclassified	0.036	0.321	0.851	0.01	3.76	0.153	0.294	0.977	0.04	17.07	0.020	0.477	0.694	0.006	1.67
Between-class				0.06	19.53				0.04	14.28				0.052	11.78

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.7: Decomposition Result VII: Detailed Agrarian Classes

Class	1983-84					1993-94					2009-10				
	consumption share	Gini	Overlap Index	Contribution	%	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall				0.309	100.00		0.284		0.284	100		0.430		0.430	100.00
Within-class				0.250	80.91				0.231	81.31				0.372	86.53
Rich Farmer	0.027	0.345	0.304	0.003	1.12	0.023	0.263	0.425	0.003	1.11	0.025	0.613	0.752	0.011	3.05
Middle Farmer	0.061	0.264	0.738	0.012	4.72	0.035	0.249	0.719	0.006	2.75	0.041	0.279	0.582	0.007	1.78
Small Farmer	0.180	0.351	0.830	0.053	20.99	0.115	0.215	0.644	0.016	6.90	0.078	0.441	0.883	0.030	8.17
Marginal Farmer/Tenant	0.291	0.292	0.901	0.076	30.54	0.399	0.303	0.926	0.112	48.51	0.527	0.453	0.898	0.214	57.62
Agworker	0.442	0.250	0.967	0.107	42.64	0.428	0.231	0.950	0.094	40.74	0.329	0.328	1.013	0.109	29.38
Between-class				0.059	19.09				0.053	18.69				0.058	13.47

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.8: Decomposition Result VIII: Detailed Non-Agrarian Classes

Class	1983-84					1993-94					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.331		0.331	100.00		0.313		0.313	100.00		0.441		0.441	100.00
within class				0.270	81.76				0.279	89.06				0.394	89.43
AbsenteeLL+nonagselfemp	170.88	0.144	0.317	0.039	14.40	0.113	0.411	0.883	0.041	14.75	0.096	0.445	0.937	0.040	10.15
Nonagselfemp (Petty)	123.22	0.206	0.271	0.054	19.90	0.175	0.285	1.000	0.050	17.92	0.216	0.482	0.956	0.100	25.31
AbsenteeLL+Others	191.15	0.080	0.291	0.018	6.73	0.048	0.267	0.825	0.011	3.82	0.022	0.548	0.284	0.003	0.88
Non Agri-Workers	124.54	0.340	0.308	0.107	39.46	0.289	0.251	0.977	0.071	25.41	0.542	0.383	1.040	0.216	54.70
Rural Professional	248.65	0.157	0.311	0.032	11.80	0.105	0.351	0.777	0.029	10.32	0.026	0.477	0.715	0.009	2.28
Rural Unclassified	180.79	0.073	0.321	0.021	7.71	0.269	0.294	0.980	0.077	27.78	0.097	0.479	0.565	0.026	6.69
between-class				0.060	18.24				0.034	10.94				0.047	10.57

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66).

Table 4.9: Decomposition Result IX: Socio-Economic Group Inequality

Social Group	1983					1993-4					2009-10				
	consumption share	Gini	Overlap Index	contribution	%	consumption share	Gini	Overlap Index	Contribution	%	consumption share	Gini	Overlap Index	contribution	%
Overall		0.338		0.338	100		0.316		0.3165	100		0.473		0.473	100
Intra-group				0.319	94.17				0.3037	95.95				0.438	92.69
Scheduled Tribe	0.010	0.304	1.065	0.003	0.99	0.008	0.319	1.077	0.003	0.92	0.008	0.298	1.057	0.002	0.56
Scheduled Caste	0.079	0.275	1.003	0.022	6.86	0.065	0.213	0.887	0.012	4.07	0.047	0.266	0.957	0.012	2.76
Hindu	0.498	0.331	0.955	0.158	49.51	0.528	0.314	0.969	0.161	52.92	0.499	0.515	0.965	0.248	56.71
Muslim	0.168	0.320	1.042	0.056	17.60	0.189	0.319	1.049	0.063	20.77	0.196	0.337	1.001	0.066	15.05
Christian	0.245	0.355	0.919	0.080	25.05	0.210	0.326	0.944	0.065	21.32	0.250	0.503	0.869	0.109	24.92
Inter-group				0.020	5.83				0.013	4.05				0.035	7.31

Source: NSSO Unit Record Data; 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.10: Number of and Workers Affected by Industrial Disputes that Resulted in Work Stoppages: Kerala, Five-year Periods between 1960 and 2011

Disputes	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2001-05	2006-11
Number of Disputes	1255	1302	1322	579	452	378	195	104	51	37
Workers affected('000)	474	785	924	400	472	322	109	322	151	32

Source: Statistics for Planning, DES, Government of Kerala, Various Issues

Table 4.11: Daily Income/Wage Rates in Kerala (Rupee/Day) (Base Year=2009-10)

Occupation	1983-84	1993-94	2009-10
Urban Salaried Employee (Industry)	194.92	289.68	402.80
Urban Salaried Employee (Service)	218.48	294.80	474.86
Urban Workers (Industry)	128.24	152.46	259.41
Urban Workers (Service)	155.65	181.04	206.07
Rural Salaried Employee	155.41	202.75	288.15
Rural Agricultural Worker	120.52	120.69	198.51
Rural Non-agri Worker	130.99	162.13	250.65
Standard Deviation	4.09	5.23	6.21

Source: NSSO Unit Record Data; Employment Unemployment Survey: 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.12: Growth Rates of Incomes/Wags in Different Sectors, Kerala (Base Year=2009-10)

Occupation	1983-84 to 1993-94	1993-94 to 2009-10
Urban Salaried Employee (Industry)	1.74	0.90
Urban Salaried Employee (Service)	1.31	1.30
Urban Workers (Industry)	0.75	1.45
Urban Workers (Service)	0.66	0.35
Rural Salaried Employee	1.16	0.96
Rural Agricultural Worker	0.01	1.36
Rural Non-agri Worker	0.93	1.19

Source: NSSO Unit Record Data; Employment Unemployment Survey: 1983-84(Round: 38) NSSO-1993-4(Round: 50) and 2009-10(Round: 66)

Table 4.13: Average Daily Wage Rate of Rural Labourer (Base Year=2009-10)

Labour Type	**1983-84**	**1993-94**	**2009-10**
Skilled Worker (Mason)	149.35	193.88	338.67
Unskilled Worker	115.57	127.51	241.15
CPI (AW)	87.08	195.89	496.00

Source: Economic Review (various issues)

Table 4.14: Compound Growth Rate of Rural Labourer's Average Daily Wage Rate (Base Year=2009-10)

Labour Type	1983/84 to 1993/94	1993/94 to 2009/10
Skilled Worker (Mason)	2.64	3.55
Unskilled Worker	0.99	4.06
CPI (AW)	8.45	5.98

Source: Economic Review (various issues)

ENDNOTES

[1] The wage data are generated from NSSO Employment Unemployment Survey unit records rounds 38 (1983-84), 50 (1993-94) and 66 (2009-10) for urban and rural daily wages/incomes. For estimating the daily income of urban and rural salaried employees, usual activity status code 31 and 71 are used and estimating rural and urban workers' daily wages, usual activity status code 51 is used. NIC codes are used to identify industrial and service sector employees and workers in urban sector and operational codes are used to disaggregate rural workers into agricultural and non-agricultural workers in this study. The non-availability of income data on owners and self-employed is the main limitation of this approach.

[2] This is an important result since in other economies where inequality has increased rapidly, real wage rates of workers fell rapidly (Stiglitz,2012).

Chapter 5
Explaining the New Patterns of Growth and Inequality (II): Field Investigations

5.1 Introduction

This chapter looks into the determinants of high growth, worsening inequality and the formation of a new class structure in Kerala based upon fieldwork. Though there are studies on sources of growth and worsening inequality, a field study based explanation of high economic growth, increase in inequality and class structural changes is absent. This study is intended to fill this lacuna. An extensive field study was conducted across Kerala for this purpose.

The remaining part of this chapter is organized as follows: Section two describes the sample frame, methodology, concept and definitions used in field research. Section three presents class-wise income, consumption and asset distributions. Section four discusses the major heads of consumption expenditure. Section five discusses indebtedness among different classes. Section six looks into the details of new class structure in Kerala. Section seven discusses the determinants of growth and inequality. The last section concludes the chapter.

5.2 Sample Frame, Methodology, Concept and Definition

The field study covered 12 districts of Kerala and used purposive sampling technique to collect information from the households. The sample survey was conducted for this study from September 2012 to January 2013. Detailed semi-structured questionnaire was used to elicit information about income, wealth holding, consumption expenditure and other details from the sample households. In the field survey, 130 households (566 persons) across Kerala were sampled. Out of these, 94 (415 persons) were from rural and 36 (151 persons) were from urban areas. The urban samples were collected from Kannur, Kozhikode, Thrissur, Ernakulam and Thiruvananthapuram districts of Kerala as

these are the prominent urban centers in the region[1]. The rural samples were collected from different parts of Kerala (except from Malappuram and Alappuzaha districts). In the sample survey 32 households are migrants and the remaining 98 households are non-migrants. 108 households reported to have asset acquisition over the past 10 years. The details of district-wise sampled households are shown in Table 5.1. The definitions of the concepts used in this study are as follows.

Household:

> *"A household is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. Persons in a household may be related or unrelated or a mix of both. However, if a group of unrelated persons live in a sample household but do not take their meals from the common kitchen, then they are not constituent of a common household. Each such person was to be treated as a separate household" (NSSO Report No:500, 2005).*

Migrant's Household:

> *"If a member of particular household migrated to the foreign countries at the time of enumeration during the last 365 days, that household is considered as a migrant's household" (NSSO Report No:500, 2005).*

Remittances:

Remittance is defined as the amount of money (in Rupees) received during the last 365 days by the migrant's household from abroad. Since households receive remittances in different periods in an year (e.g., some households receive remittance on a monthly basis, whereas some households receives remittances in every 3 months and in some rare cases household receive once every 5 months). The reference period of remittances is taken as last 365 days of the period of enquiry.

Household size:

"*The number of normally resident members of a household is its size. It will include temporary stay-aways (those whose total period of absence from the household is expected to be less than 6 months) but exclude temporary visitors and guests (expected total period of stay less than 6 months)*" (NSSO Report No:500, 2005).

Household Asset:

Total household asset comprises of investment in physical assets like land, buildings, livestock, agricultural machinery and implements, non-farm business equipment, all transport equipment etc.[2]

Household Income:

Income of all members of the household during the reference period (last 30 days) is taken as household income. This includes earnings from income earning assets, wages, salaries, pension etc.

Household Monthly Per-Capita Expenditure:

"*Household consumer expenditure is measured as the expenditure incurred by a household on domestic account during a specified period, called reference period. It also includes the imputed values of goods and services, which are not purchased but procured otherwise for consumption. In other words, it is the sum total of monetary values of all the items (i.e., goods and services) consumed by the household on domestic account during the reference period. The imputed rent of owner-occupied houses is excluded from consumption expenditure. Any expenditure incurred towards the productive enterprises of the households is also excluded from the household consumer expenditure. Monthly per capita expenditure (MPCE) is the household consumer expenditure over a period of 30 days divided by household size"* (NSSO Report No:500, 2005).

Class:

In this study, occupation of the household head is used to identify the class of the household. This chapter uses the simplified class framework which is used in Chapter 3 and 4.

5.3 Class-Wise Income, Asset and Expenditure

Asset holding and income are the two important factors, which have a direct bearing on economic inequality (Wright, 2000). Table 5.2 throws light on the distribution of asset, income and monthly per-capita consumption expenditure among different classes in Kerala. In terms of the level of income, urban and rural elites recorded the highest level of income, asset and monthly consumption among the classes. Working class recorded the lowest level of income, asset and consumption expenditure, as expected. The agricultural labour class recorded the least level of income, asset and consumption expenditure among the working classes. The ratios of incomes, consumption expenditure and assets of different classes to those of the agricultural workers would provide a rough quantification of the between-class inequalities. Urban elite's per capita income is around 23 times higher than agricultural worker's income. Rural elite's per-capita income is around 10 times higher than the agricultural workers' income. Urban elite's and rural elite's MPCE is around 5.75 and 4.09 times higher than the agricultural workers' MPCE respectively. It is revealed that urban elite's per-capita asset value is 53.99 times higher than agricultural workers' asset. Rural elite's per-capita asset is 15.02 times higher than agricultural workers asset.

5.4 Major Heads of Household's Consumption Expenditure

After the adoption of liberalization policies in 1991, Kerala experienced a substantial increase in private expenditure on education and health care (Aravinden, 2006). Contrary to this, there has been a rapid increase in morbidity because of the change in lifestyle and environmental pollution caused by among other factors, the unscientific disposal of urban and household waste

(Navaneetham et.al., 2009). The high spending on consumer durables started along with the high migration and remittance inflows into the economy during 1980s and this trend strengthened after the liberalization policies of the 1990s (Pallai et.al., 2006). Moreover, of late, liquor consumption is very high among non-agricultural workers and the youths. The stress factors associated with the manual work and the change in preference towards liquor are believed to be the reasons for high alcohol consumption in Kerala (Oommen, 2009). Table 5.3 reveals that food, health and education are the major heads of consumer expenditure in Kerala. The classes like urban and rural elites have a higher level of expenditure on health and education. Urban elites spend Rs. 4731.2/month and rural elites spend Rs. 3405.90/month on an average for health, which accounts for 46.43 percent and 47.05 percent respectively of their total expenditure. From the field study, it is revealed that because of the high incidence of morbidity particularly among high-income brackets along with the privatization in health care system resulted in high out-of-pocket expenditure on health (Aravinden, 2006; field study notes, 2012-13). Major diseases prevalent among high income group are cardiovascular diseases, diseases of bones and joints, hypertension, diabetics and blood pressure (field study notes, 2012-13). These diseases need costly treatment and high income groups spend higher than the rest of the classes (ibid). It is also very well known that morbidity among low income groups is on the rise (Navaneetham et al, 2009). Major diseases prevalent among lower income groups, which are revealed from the field research, are cough and acute bronchitis, diabetics, blood pressure, viral fever/influenza and non-specific fevers of short duration (field study notes, 2012-13). In short, high level of morbidity and commercialization of health care are the reasons for high expenditure on health care.

There has been a rapid increase in private cost of education in Kerala of late. It is argued that privatization and commercialization of education were the reasons for rapid increase in the cost of education including both school education and higher education (Aravinden, 2006). Urban elites spend Rs. 843.75/month and rural elites spend Rs. 801.20/month on an average for

education; this accounts for 8.28 percent and 11.07 percent respectively of their total expenditure on education. Agricultural workers and non-agricultural workers spend Rs 57.87/month and Rs 72.55/month on an average for education respectively. From the field study, it is understood that preference for professional education along with the commercialization of education by the state led to the high expenditure on education by the elites. The preference for professional education and private education is less among agricultural and nonagricultural classes in Kerala.

5.5 Migration and Asset Accumulation

From the field study it turned out that the migration process helped the households to invest in assets, particularly the households from working classes. This section presents the class-wise distribution of remittances and household investments.

The field study revealed that each class earns substantially in the form of remittances as a result of the migration process. Table 5.4 throws light on class-wise distribution of remittances (class-wise remittances are presented in current prices). The classes like urban and rural elites recorded the highest level of monthly per-capita remittances. The monthly per-capita remittance for rural elites is Rs. 74,444.44 and for urban elites, it is Rs. 46,666.67. Agricultural workers recorded the least level of monthly per-capita remittances among all the classes as their monthly per-capita remittance is only Rs. 6,625.00. Rural elites and urban elites corner the major portion of total remittances as these classes' monthly per-capita remittances are 7.04 and 11.24 times higher respectively than the agricultural workers' monthly per-capita remittances. Compared to other working classes, non-agricultural workers benefited more from migration, as their average monthly per capita remittance is Rs. 9,928.57, which is 1.50 times higher than agriculture workers' monthly per-capita remittances.

Table 5.5 shows that migration helped to increase asset holding, as migrants have acquired more assets than non-migrants during the last 12 years. Moreover, urban and rural elites are the classes who have benefited more through

migration in terms of asset acquisition compared to other classes. However, the non-migrant urban elite households' asset acquisition is higher than their migrant counterparts.

The boom in construction sector since the late 1970s has been identified as a crucial component of the new economy of Kerala by many studies (e.g. Gopikutten, 1990). The evidence from the field shows that the boom continues even now (field study notes, 2012-13). The field study data, which is furnished in Table 5.6, confirms that both the components of private investments, namely the business investments and the residential construction have registered positive trend in the state over the last 12 years. Moreover, it also turned out that all the classes invested substantially on construction and renovation of houses. The classes like urban workers, rural elites, small peasants, non-agricultural workers and agricultural workers acquired a major portion of total assets over the past 12 years from household construction activities. Urban and rural elites invested heavily on land, which is evident from their average investment on land. On an average, the urban elites invested Rs.15,11,333 and rural elites, Rs. 1,57,454.10 on land. In short, it can be concluded that there has been a substantial investment made on asset in the state over the years, mainly in land and construction activities.

5.6 Indebtedness among Classes

There are studies, which argue that indebtedness among low income groups is the important factor that pushed the inequality up in recent years (Aravinden, 2006)[3]. The reasons for indebtedness identified by these studies are high expenditure on marriage, soaring medical and educational expenditure because of commercialization and privatization of health care, education, and the price crash and soaring cost of production in agricultural, high alcoholism etc. (Oommen, 2010; Aravinden, 2006). The level of indebtedness is measured as a ratio of debt to income. Table 5.7 throws light on level of indebtedness of different classes in Kerala. It is clear that the small peasant is the class having highest indebtedness followed by urban workers. Among the migrants, peasant

households are the ones, which are highly indebted followed by urban workers. However, among non-migrant households, urban elites and urban workers are having the highest level of indebtedness followed by small peasants. The high level of indebtedness among urban elites is not a major concern since they use their asset as a fall back.

The data on purpose of debt can reveal the causes of indebtedness. Table 5.8 shows the purpose of debt by class. It is revealed that both urban elites and rural elites borrowed heavily to invest in business concerns. Small peasants borrowed for farming activities and got indebted. This is a pointer towards the looming agrarian crisis in Kerala[4]. Moreover, this class, on an average, invested Rs. 62,000/year for house renovation, which alone has deepened their indebtedness. It is interesting to note that almost all the classes (except agricultural workers) invested heavily on renovation and house construction over the last 10 years. This shows that the boom in construction sector, which started during late 1970s still continues in Kerala (Gopikuttan, 1990).

5.7 Changing Class Structure in Kerala?

Table 5.9 helps us to broaden our understanding of the class structure in Kerala. The increase in the number of non-agricultural workers, which is revealed from the discussion on class structure, is explained by the movement of agricultural workers and tenant farmers into the ranks of non-agricultural workers and migrants. The field research data also shows the presence of a newly emerged group of petty owners in Kerala. These petty owners emerged from among migrant non-agricultural workers and marginal farmers. It is also the case that a significant proportion of owners in urban areas have emerged from rich farmers and urban professionals. Foreign remittances are playing a key role in the way initial capital is gathered/accumulated in Kerala.

5.8 Intra-Class Inequality among Classes and its Explanations

The inter-class/group inequality in Kerala has been well identified by many studies now. However, intra-class inequality in Kerala is seldom studied.

From the Gini decomposition analysis, which is discussed in Chapter 4, it has turned out that high intra-class contribution of urban elites, urban workers, rural elites, non-agricultural workers and agricultural workers explains 90 percent of overall inequality. This section attempts to explain the high intra-class inequality among classes from the field data.

There are studies, which confirm the existence of a heterogeneous owner class, in Kerala. This class includes large business traders, contractors, planter capitalists, gold merchants, luxury and bar hotel owners, liquor business barons etc. The field study confirms the heterogeneity of elite classes in Kerala. The heterogeneity and their income differences within urban elites and rural elites explain the high level of intra-class inequality within this class. From the Table 5.10, it is clear that owners earn more than any other groups among urban elites. Monthly average per-capita household income of owner is Rs.2,85,000.00. Manufacturing professionals earn least among this group as they earn Rs.42,666.67 on an average per month. This shows that earning differences among different groups in urban classes are stark.

Table 5.11 shows the income differences among different groups within rural elites. The classes like absentee landlords and rich farmers are earning more as compared to the middle farmer. The monthly per-capita income of absentee landlord class is Rs.1,29,017.90, and for rich farmer it is Rs.1,00,400.00[5]. However, for the middle farmer the monthly per-capita income is as low as Rs.7,966.60. The income differences among different groups within rural elites explain its high contribution of within-class inequality.

The skill difference and associated difference in earnings explain the intra-class inequality among urban workers. Table 5.12 shows that workers having an educational qualification of pre-degree are having a monthly income of Rs 22,379 on an average. However, workers with an educational qualification below 10th standard have an average monthly income of Rs. 15383. Workers having an educational qualification of 10^{th} standard have an average monthly income of Rs.19716 as compared to ITI and Diploma certificate holders who

receive an average income of Rs. 26166/month. These results are in conformity with the findings by Aravinden (2006), which say that educational level and income levels are positively correlated in Kerala.

Table 5.13 clearly shows that the wide difference in earnings from different crops explains high level of intra-class inequality among small peasants. The income from crops like nutmeg, cardamom and rubber is staggeringly higher than paddy and tapioca cultivation. The average annual income of a farmer from nutmeg and cardamom cultivation is Rs. 1,67,500 per 0.5 acre and 80,500 per 0.75 acre respectively. For a rubber farmer, the average annual income is Rs. 1,17,000 per acre. Whereas the annual average income from tapioca cultivation is a paltry Rs. 1,400 per 0.3 acre; this is much lower than that of nutmeg, cardamom and rubber. This means that a farmer whose production mix is dominated by food crops earns staggeringly lower than a farmer whose production mix is dominated by plantation/cash crops.

The vast majority of migrant workers from Kerala have secondary education or below (Zachariah et.al., 2002; Aravinden, 2006). It is known that migration played a crucial role in augmenting the income of Kerala workers (Kannan, 2005; Zachariah et.al., 2002; Aravinden, 2006). From the field study it has turned out that the earning difference between migrants and non-migrants are stark. The ratio of migrant worker's household income to a non-migrant worker's household income shows the sharp income differences between the two (see Table 5.14). This explains the high within-class inequality among non-agricultural workers in Kerala. Agricultural workers' population is becoming thinner over the years as farmers shift their crops from high labour intensive food crops to low labour absorbing cash crops. However, there are wage differences among different agricultural occupations (Table 5.15). Hence agricultural worker's contribution to overall inequality is negligible.

5.9 Discussion and Conclusion

This chapter explored the determinants of high growth, inequality and class formation. From the discussion on patterns of consumer expenditure,

remittances and patterns of indebtedness, it is clear that remittances from abroad increased the income of households and part of it translated into effective demand and resulted in increased supply of educational and health services and boom in the construction sector. The high spending on food may not create significant multipliers in Kerala since the state is a net importer of durables goods and food articles. From Chapter 2 it is clear that there is substantial surge in investments in recent years. This must reduce Kerala's dependence on the imported tradable goods. The high growth of sectors like construction, trade, hotels and restaurants, banking and insurance, real estate, and other services etc., in recent years as discussed in Chapter 2, confirms the linkage between growth on the one hand and consumer expenditure and household investment on the other. It has turned out that substantial investments have taken place in Kerala as major components of private investment; viz. business investment and residential construction, have registered a positive trend over the last 12 years. Remittances and borrowing are the two sources of financing the investment in recent years in Kerala. The presence of migrants among various classes as revealed from the study itself creates stratification and within-class inequality. Moreover, from the high level of indebtedness, as revealed in the field study, it can be deduced that the current level of consumption expenditure and growth may not continue in future.

From the inequality decomposition results it has turned out that the contribution of urban elites, rural elites, small peasants and non-agricultural worker class to overall intra-class contribution increased over the years. From the discussion on field data, it is clear that urban and rural elites are highly heterogeneous in themselves. The income differences among different crops explain the small peasant's intra-class inequality. Urban workers' high contribution to intra-class inequality is explained by the difference in skill levels and associated income differences within this class. The migration process has increased the income of a section of non-agricultural workers considerably and the class has become highly unequal in itself. This last factor is the most

significant contributor to the increase in the intra-class component of overall inequality.

There is a stark concentration of wealth and income among elites in Kerala. Moreover, it is also clear that major portion of asset acquisition over the last 12 years is cornered by urban elites alone. This means that the benefits of high economic growth are skewed towards urban elites. It is also clear that there is a change in class structure of Kerala featuring the migration process of rural workers to urban areas, the decline in number of agricultural workers and the increase in the number of non-agricultural workers, emergence of petty owners from non-agricultural workers and marginal/tenant farmers. The newly emerged owners mobilized their capital either from foreign remittances or surpluses from agricultural or relied on bank credit.

TABLES

Table 5.1: District-Wise Sample Households

District	Total		Rural		Urban	
	No of sampled households	No of sampled individuals	No of sampled households	No of sampled individuals	No of sampled households	No of sampled individuals
Kasergode	8	74	8	45		
Kannur	14	38	8	9	6	22
Wayanad	9	63	9	22		
Kozikode	9	51	2	51	7	29
Palakkad	7	54	7	32		
Trissur	16	37	10	37	6	29
Eranakulam	17	34	6	34	11	41
Kottayam	9	38	9	38		
Idukki	10	36	10	36		
Pathanamthitta	9	29	9	29		
Kollam	8	63	8	33		
Trivandrum	14	49	8	49	6	30
Kerala	130	566	94	415	36	151

Data Source: Field Survey

Table 5.2: Monthly Per-Capita Income, Consumption and Asset of Households

Class	Population %	Income	Ratio	MPCE	Ratio	Asset	Ratio
Urban Elite	7.69	94458.33	23.95	10190.86	5.75	7096000.00	53.99
Urban Worker	19.23	7194.40	1.82	3867.03	2.18	566012.00	4.31
Rural Elite	21.54	41929.31	10.63	7238.34	4.09	1973360.00	15.02
Small Peasants	13.85	6324.31	1.60	2654.65	1.50	766366.20	5.83
Non Agri-worker	30.77	7374.75	1.87	2629.72	1.48	502492.20	3.82
Agri Worker	6.92	3944.44	1.00	1771.66	1.00	131425.90	1.00
Total	100.00	21098.40	5.35	4385.96	2.48	1349550.00	10.27

Data Source: Field Survey

1) Ratios are estimated by dividing agricultural workers income, asset and MPCE to each class's income, asset and MPCE.

Table 5.3: Major Heads of Household Consumption Expenditure (in Rupees)

Class	Population %	MPCE	Health (Per Capita)	Durables (Per Capita)	Education (Per Capita)	Liquor (Per Capita)	Food (Per Capita)	Miscellaneous (Per Capita)
Urban Elite	7.69	10190.86 (100.00)	4731.2 (46.43)	691.53 (6.79)	843.75 (8.28)	222.67 (2.18)	2530.00 (24.83)	1171.67 (11.50)
Urban Worker	19.23	3867.03 (100.00)	1063.80 (27.51)	289.42 (7.48)	356.67 (9.22)	153.80 (3.98)	1448.15 (37.45)	555.20 (14.36)
Rural Elite	21.54	7238.34 (100.00)	3405.90 (47.05)	496.44 (6.86)	801.20 (11.07)	197.05 (2.72)	2033.26 (28.09)	304.47 (4.21)
Small Peasants	13.85	2654.65 (100.00)	215.31 (8.11)	257.03 (9.68)	384.76 (14.49)	241.45 (9.10)	1319.97 (49.72)	236.14 (8.90)
Non Agri-worker	30.77	2629.72 (100.00)	344.87 (13.11)	331.00 (12.59)	72.55 (2.76)	783.24 (29.78)	851.33 (32.37)	246.73 (9.38)
Agri Worker	6.92	1771.66 (100.00)	348.89 (19.69)	120.68 (6.81)	57.87 (3.27)	348.61 (19.68)	693.06 (39.12)	202.56 (11.43)
Total	100.00	4385.96 (100.00)	1462.18 (32.01)	361.57 (8.84)	385.66 (8.79)	387.71 (8.24)	1403.73 (33.34)	385.11 (8.78)

Data Source: Field Survey

1) Figures in parentheses are percentage of the total expenditure

Table 5.4: Per-Capita Monthly Remittances

Class	Population %	Per-Capita Monthly Remittances (in Rs)
Urban Elite	12.50	46666.67 (7.04)
Urban Worker	35.48	9304.55 (1.40)
Rural Elite	9.68	74444.44 (11.24)
Small Peasants	12.50	5823.21 (0.879)
Non Agri-worker	22.58	9928.57 (1.50)
Agri Worker	6.45	6625.00 (1.00)
Total	100.00	19948.16 (3.01)

Data Source: Field Survey

1) Figures in parentheses are ratios of each class's remittances to agricultural workers' remittances.

Table 5.5: Last 12 years' Per-Capita Asset Acquisition of Different Classes

Class	Total Sample Household		Migrant Household		Non-Migrant Household	
	Population %	asset acquisition	Population %	asset acquisition	Population %	asset acquisition
Urban Elite	7.69	1511333.00 (440.67)	6.12	2067500.00 (593.95)	12.50	677083.30 (208.33)
Urban Worker	19.23	94352.00 (27.51)	14.29	68842.86 (19.78)	34.38	126818.20 (39.02)
Rural Elite	21.54	157454.10 (45.91)	25.51	131415.20 (37.75)	9.38	374444.40 (115.21)
Small Peasants	13.85	36228.84 (10.56)	14.29	33976.19 (9.76)	12.50	44113.10 (13.57)
NonAgriworker	30.77	19858.93 (5.79)	32.65	16542.41 (4.75)	25.00	33125.00 (10.19)
Agri Worker	6.92	3429.63 (1.00)	7.14	3480.95 (1.00)	6.25	3250.00 (1.00)
Total	100	179678.40 (52.39)	100.00	180444.6 (51.84)	100.00	177331.84 (54.56)

Data Source: Field Survey

1) Figures in parentheses are ratios of each class's asset acquisition to agricultural workers' asset acquisition.

Table 5.6: Structure of Household Assets over the Last 12 Years

Class	Population %	Last 12 Years Asset Acquisition	In land	In House-Construction**	Other***
Urban Elite	7.69	1511333.00 (100.00)	1221667.00 # (80.83)	103000.00 (6.82)	186666.70 (12.35)
Urban Worker	19.23	94352.00 (100.00)	25800.00 (27.34)	29360.00 (31.12)	39192.00 (41.54)
Rural Elite	21.54	157454.10 (100.00)	48988.10 (31.11)	63523.81 (40.34)	44942.18 (28.54)
Small Peasants	13.85	36228.84 (100.00)	2222.22 (6.13)	25801.59 (71.22)	8205.03 (22.65)
NonAgriworker	30.77	19858.93 (100.00)	0.00 (0.00)	16638.10 (83.78)	3220.83 (16.22)
Agri Worker	6.92	3429.63 (100.00)	0.00 (0.00)	3129.63 (91.25)	300.00 (8.75)
Total	100.00	179678.4 (100.00)	109794.9 (61.11)	36159.89 (20.12)	33723.63 (18.77)

Data Source: Field Survey

1) # includes investments in factory

2) **includes renovation

3) *** includes purchase of vehicles, small machines and tools

Table 5.7: Class-Wise Indebtedness

class	Total		Migrant		Non-Migrant	
	Population %	Debt/Income	Population %	Debt/Income	Population %	Debt/Income
Urban Elite	7.69	10.03	12.50	2.59	6.12	18.16
Urban Worker	19.23	10.13	34.38	7.70	14.29	12.05
Rural Elite	21.54	8.74	9.38	6.16	25.51	9.05
Small Peasants	13.85	10.64	12.50	7.46	14.29	11.55
NonAgriworker	30.77	6.10	25.00	8.51	32.65	5.50
Agri Worker	6.92	1.01	6.25	0.22	7.14	1.24
Total	100.00	8.17	100.00	6.62	100.00	8.67

Data Source: Field Survey

Table 5.8: Class-wise Per-capita Debt based on the Purpose of Debt

Purpose of debt	Business Investment	Health Exp	Farming Exp	House Renovation	Marriage Exp	Previous Debt Redemption	Education Exp	Miscellaneous**	Total
Urban Elite	6200000.00 (4)	-	-	175818.20 (3)	-	-	-	325000.00 (3)	3019395.00 (10)
Urban Worker	-	-	-	75545.45 (20)	-	-	-	44000.00 (2)	66879.12 (22)
Rural Elite	1450000.00 (5)	-	67575.76 (4)	264864.90 (6)	87272.73 (7)	-	66666.67 (3)	325000.00 (3)	287744.40 (28)
Small Peasants	-	-	16697.67 (10)	62000.00 (2)	-	10000 (1)	-	123384.60 (5)	56370.37 (18)
Non Agriworker	-	-	-	42441.18 (24)	72000.00 (7)	50000 (1)	-	17379.49 (8)	41216.97 (40)
Agri Worker	-	20000.00 (1)	-	-	-	-	-	1243.24 (8)	3073.17 (9)
Total	4244118.00 (9)	20000.00 (1)	38789.47 (14)	95880.53 (55)	82136.36 (14)	30000 (2)	66666.67 (3)	84978.81 (29)	335167.50 (127)

Data Source: Field Survey

1) Figures in parentheses are number of households.
2) **This includes purchase of vehicles, household durables, expenditure on death ceremony, birth ceremony etc.

Table 5.9: Changes in Class Structure

Class	Sub-type now	Sub-type 12 years ago	Sources of Capital	Ratio to Total Household within the Class
Urban elite	Owner	Professional	Foreign Remittances	1/10
	Owner	Rich Farmer	Surplus form farming	1/10
Urban workers	Unskilled worker	Agricultural Workers	-	2/25
	Unskilled worker	Non-agricultural Worker	-	6/25
	Skilled Worker	Tenant /Marginal Farmer	-	1/25
Rural elites	Petty Owners	Migrant Non-agricultural Workers	Foreign Remittances, Bank Loan	8/28
	Petty owner	Tenant /Marginal Farmer	Foreign Remittances	1/28
Small Peasants	marginal farmer	Middle Farmer	-	1/18
Non-Agricultural Worker	Non-agricultural worker	Agricultural Workers	-	6/40
	Non-agricultural worker	Tenant /Marginal Farmer	-	3/40
Agricultural worker	Agricultural worker	Tenant /Marginal Farmer	-	1/9

Data Source: Field Survey

Table 5.10: Urban Elite's Monthly Per-Capita Income

Class	Population %	Monthly Per-Capita Income
Owner	25.00	285000.00
Manager	25.00	80900.00
Professionals (Service)	27.50	48909.09
Professionals (Manufacturing)	22.50	42666.67
Total	100.00	94458.33

Data Source: Field Survey

Table 5.11: Rural Elite's Monthly Per-Capita Income

Class	**Population**	**Monthly Per-Capita Income**
Rich Farmer	7.52	100400.00
Middle Farmer	22.56	7966.60
Rural Professionals	25.56	72941.18
Absentee Land lords	10.53	129017.90
Petty Owners	33.83	15571.11
Total	100.00	41929.31

Data Sources: Field Survey

Table 5.12: Skill Difference and Income Level Among Urban Workers

Education level	Population %	Monthly Income (Rs)*
Below 10^{th}	28.16	15383.33
10^{th}	23.30	19716.67
ITI &Diploma	23.30	26166.67
Pre-Degree& Above	25.24	28250.00
Total	100.00	22379.17

Data Source: Field Survey

1) * individual income

Table 5.13: Yearly Earing from Different Crops

Crop	Number of Household	Yearly Income (Rs)	Average Area (in acre)
Cashew Nut	6	12500	0.50
Coconut	10	3750	0.50
Areca Nut	7	12250	0.30
Rubber	7	117000	1.00
Tapioca	5	1400	0.30
Banana	12	17500	0.50
Pineapple	5	11000	0.30
Ginger	8	20750	0.30
Mangosteen	4	14000	0.30
Nutmeg	6	167500	0.50
Coffee	3	15000	0.75
Paddy	8	11000	0.50
Pepper	6	13875	0.50
Cardamom	3	800500	0.75

Data Source: Field Survey

Table 5.14: Income Difference between Migrants and Non-Migrants

Class	Population %	MPI of Migrants Households (Rs)	Population %	MPI of Non-Migrants Households (Rs)	Income Ratio
Non-Agricultural Workers	25.00	14979.17	32.65	5473.65	2.74
All Classes	100.00	30234.78	100.00	18115.09	1.67

Data Source: Field Survey

1) MPI-Monthly Per-Capita Household Income.

Table 5.15: Income Difference among Different Agricultural Operations**

Occupation	Population	Income / month
Toddy Tapper	11.11	11000.00
Field Labour	33.33	7360.00
Agricultural Worker (plantation)	22.22	6300.00
Rubber Tapping	22.22	9300.00
Timber Logging	11.11	14600.00
Total	100.00	8764.44

Data Source: Field Survey

1) **individual income

ENDNOTES

[1] Urban samples are collected from households in Municipalities and rural samples are collected from households in Village Panchayats.

[2] Financial assets are not included in household assets unlike in NSSO surveys.

[3] Elites borrow money to purchase income earning assets. Whereas, the working classes borrow money to meet distress expenditures and day to day consumption and eventually lead to debt trap. This process accentuates future inequality.

[4] The high indebtedness among small and marginal farmers is well identified by other studies like Jeromy (2005), Nair et.al. (2009).

[5] The absentee landlords invested heavily in booming sectors like construction and real estate. This helped them to earn more than any other groups in rural elites. However, rich farmers diversified their crops as a part of hedging market risk. This helped to earn relatively high compared to other groups in the class (Field Research Notes, 2012-13).

Chapter 6

Intertwining of Growth and Inequality in Kerala; Arriving at a Composite Explanation

6.1 Introduction

Kerala has often been portrayed as a model state through which the well-being of the people can be transformed into a higher level without the necessity of high economic growth (Sen, 1998; Govindan, 1996). Redistributive policies like land reforms, free and compulsory education system, public distribution system, expansion of public health care system and so forth largely induced by people's movements were often identified as the reasons for the high human development indicators and relatively low inequality (United Nations, 1975:149-150; Franke, 1993). However, of late, while the human development indicators remain high, as explained in Chapters 1, the state started to witness both substantial increase in economic growth and inequality. This is a clear deviation from the earlier experience of Kerala economy that was based on low growth, relatively low inequality and high human development.

In this chapter both secondary and field survey data are used to arrive at composite explanations for the growth turnaround and inequality dynamics, viz. rising polarization, stratification and intra-class inequality. The rest of the chapter is organized as follows. Section two looks into the economic growth turnaround in Kerala. Section three describes the inequality dynamics in Kerala. Section four presents a detailed discussion and explanations of growth and inequality. Section five concludes the chapter.

6.2 Growth Turnaround in Kerala

Kerala experienced three distinct growth phases from 1960-61 to 2009-10 (see Chapter 2). In the first phase (1961-62 to 1971-72) NSDP registered a growth rate of 4.40 percent. In the second phase (1971-72 to 1987-88) most of the sub-sectors in primary and secondary sectors were either stagnant or

registered low growth. Hence, the growth rate in the second phase declined to 0.85 percent. In the third phase (1987-88 to 2009-10) the economy witnessed resurgence in growth. The economy registered a growth rate of 5.81 percent as all the sectors registered a positive growth. During this period the tertiary sector started to grow exponentially. The sector-wise contributions to NSDP show that in the first two phases both primary sector and the tertiary sector were the leading contributors to NSDP. However, in the third phase tertiary sector started to contribute nearly $3/4^{th}$ of the total output.

An increase in economic growth invariably means an increase in aggregate demand in an economy characterized by unutilized and under-utilized resources (Kotz, 2008). The components of aggregate demand are household consumption, private investment, government purchases of goods and services, and net exports. In recent years, there has been a substantial increase in consumption expenditure and private investments in Kerala (see Chapter 2). Moreover, there are studies which claim that remittances are the reason behind high consumption expenditure and thereby the high growth. The field study too confirms high levels of consumption expenditure and substantial household asset acquisition over the last 12 years (see Chapter 5; Table 5.6). From the field study it is also clear that the remittances increased the household income and part of this income is translated into effective demand. This is because along with the non-tradable goods, parts of tradable goods, which are consumed in the state, are now produced within the state (see Chapter 2). In addition, high levels of expenditure on health care and education as revealed from the field survey corroborate the service sector led growth in Kerala's economy. From the discussion on investment it is clear that urban elites acquired major portion of total asset over the past 12 years. It is also clear that migration helped to carry out asset acquisition for all the classes. The high level of borrowing by the urban elites and rural elites for business investment and high level of investment on house construction and renovation as explained in the Table 5.8 throws light on the asset acquisition pattern in the state. The high level of investments in business

concerns and construction sector are the reason for the rapid growth of these sectors in recent years. In short, it can be concluded that the high level of consumption expenditure and the investments in both tradable sectors and non-tradable sectors are the sources of high growth in Kerala.

6.3 Inequality Dynamics in Keral

The decomposition analysis shows that both within-class and between-class components of total inequality have increased in absolute terms, while the within-class component now explains a higher proportion of the total inequality during 1993-94 to 2009-10. The relative gain of rural elites and the relative loss of workers, the growing wage differences explain the between-class inequality during this period, which is revealed by the inequality decomposition analysis. In recent years, contributions of agricultural workers, non-agricultural workers and owner/managers to overall inequality have increased substantially (see Chapter 4). An extensive field research was conducted to understand the within-class inequality among urban elites, urban workers, rural elites, small peasants, non-agricultural workers and agricultural workers. The heterogeneity of elites in Kerala has been recognized in many studies (Ajith, 2002; Ravi Raman, 2010). The heterogeneity among urban and rural elites and associated income differences explains the high within-class inequality among these classes (see Table 5.11 & 5.12 in Chapter 5). The skill differences among urban workers and the resultant earning difference explains the within-class inequality among this class (see Table 5.13 in Chapter 5). These results corroborate the findings by Aravinden (2006), which says that educational levels and earnings are positively related. The sharp difference in prices of food and commercial crops[1] explains the high within-class inequality among small peasants (see Table 5.14 in Chapter 5). It is very well known that the overwhelming majority of migrants belong to non-agricultural working class and the migrants earn higher than non-migrant non-agricultural workers (Zachariah et.al., 2002; Aravinden, 2006; 61). From the field study it is revealed that the migration and the resultant earning differences between migrant and non-migrant non-agricultural workers explain the high

within-class inequality. Though there are wide differences in earnings in different occupations among agriculture workers (Chapter 5; Table 5.15), this class became very thin over the years because of the decline in paddy cultivation. This makes the agricultural workers' contribution to within-class inequality insignificant.

The changes in class structure i.e., the movement of a household from one class to other, also affect inequality (Stiglitz, 2012). The secondary data and evidence from field throws light on the dynamics of new class formation in Kerala. It is clear that it was the agricultural workers and tenant/marginal farmers who joined in the ranks of non-agricultural workers in the recent past. It is also revealed that non-agricultural workers and agricultural workers joined the urban unskilled workers class. The field research data also shows the presence of a new breed of petty owners in Kerala. These petty owners emerge from migrant non-agricultural workers' class and marginal farmers. It is also clear that rich farmers and urban professionals joined the ranks of owner class. Hence, it can be deduced that the expansion of the owner/manager class, as revealed from the simplified and detailed class structure, is because of the entry of new breed of owners from urban professionals and rich farmers. Moreover, it turns out that foreign remittances, bank credit and surpluses from agriculture are the sources of capital for both big business concerns and petty businesses.

6.4 Discussion and Explanations

The above discussion presents the trend and pattern of growth, inequality and changes in class structure over the last three decades. Now, the challenge is to understand and explain these emerging trends.

Till mid-1990s the successive governments in power[2] ensured continuity in government policies (Joseph et.al., 2006). These policies were redistributive in nature particularly in favour of low-income groups. This is because of the organized nature of working classes and their ability to forge solidarity within and between sectors. The privatization/liberalization policies followed by the

state and the central governments largely eroded working class ability to organize itself, and their bargaining strength with the government and the capitalists. This is evident from the sharp decline in the number of industrial disputes and the number of workers affected after mid-1990s in Kerala[3]. This emboldened the governments to cut back the social overhead expenditures as part of economic reforms[4]. These policies inflict a heavy toll on the poor in the form of distress expenditure and invariably create stratification among the poor as those who have the wherewithal could able to buy can consume these goods and services (Aravinden, 2006). As a part of austerity measures, Kerala introduced targeted public distribution system (TPDS) in 1997 in line with the union government's policy (Oommen, 2010). This led to the drastic reduction in off-take consumption of rice from public distribution system (PDS) as revealed from Table 6.1. The per-capita consumption of rice from public distribution system in Kerala declined from 5.25 kg during 1993-94 to 2.09 kg during 2009-10 in rural areas and 4.94 kg to 1.60 kg in urban areas during the same period. The working classes bear the brunt of this policy as agricultural workers, non-agricultural workers and urban workers experienced a drastic reduction in per-capita PDS consumption of rice. The inability of the poor to access the public health system is more revealing from the data on health utilization survey and morbidity pattern (Navneetham etal. 2009, Dileep 2008, Aravinden 2006). Health service utilization statistics of NSSO survey show that 65 percent of total inpatient care services are obtained from private health services in 2006. In 1995-96, 60.3 percent of the total inpatients used private health service. The average inpatient medical expenditure, as revealed from the NSSO survey, increased from Rs. 2547 during 1995-95 to Rs. 4960 in 2006. The KSSP's sample survey on 5696 households across Kerala in 2006 too reveals the high level of inpatient expenditure as the one-time expense for inpatient in private hospital is Rs.10,445 and in government hospital, it is around Rs.6609.5 (Aravinden, 2006). The severity of the problem that Kerala's health care system suffers can be understood only by looking at the morbidity profile of Kerala. The prevalent

morbidity rate is 243/ 1000 people as against the all India rate of 91/1000 people during 2004-05. Moreover, it is found that the occurrence of morbidity is biased towards the poor and uneducated than the rich (Navneetham et al. 2009). The reduction in government expenditure on public health care after the economic reforms adversely affected the modernization of public health care system in Kerala (Oommen, 2010). This led to the deterioration of the quality of public health care system and poor people were compelled to use private health care facilities. Hence it can be concluded that the massive rise in health care expenditure and partial withdrawal of food subsidy reduced the purchasing power of working classes in Kerala.

Agricultural workers' pension was one of the important redistributive programmes during early 1980s in Kerala. In 1983, the monthly pension for agricultural worker who crossed 60 years was Rs 45. This accounted for 42.88 percent of agricultural worker's per-capita consumption expenditure and covered around 2 lakh agricultural workers in the state. The governments in power after the reforms did not give much importance to this programme. This is evident from the fact that the pension amount was a paltry Rs.120 per month, which amounted to 10.11 percent of monthly per capita expenditure of an agricultural worker and covers 5.32 lakh agricultural workers in 2009-10[5].

The failure of vast sections of *Dalits*[6], *Advasies*, fisher folks and *Namboodiri* Brahmins in taking to modern schooling, employment etc. during late 19th and early 20th century pushed these caste groups to the margin compared to the other caste and religious groups (Ravi Raman, 2010: 32-33). A sizable number of people from castes like *Nayars*[7] and in later years *Ezhavas*[8] and a vast majority of Syrian Christians earned upward mobility by entering into new spheres of economy, education and profession way back in early 20th century[9]. The upward mobility among Muslims became more pronounced after the onset of gulf migration during 1970s after a growing number of Muslims ventured into commercial activities (Osella et.al.,, 2007). However, vast majority of people from Muslim community still lives on the margin (Kabeer, 2010: 95-96). With

this background information, the polarization stratification, and high intra-group contribution of certain groups can be explained. The gains of *Nayars*, *Ezhavas* and Syrian Christians from the growth process and the loss of scheduled castes and scheduled tribes explain the inter-group inequality. The presence of elites among Hindus (particularly from *Nayars and Ezhavas*) and Christians (mostly Syrian Christians) explain Hindu's and Christian's[10] high contributions to intra-group inequality. The presence of neo rich entrepreneurs among Muslims resulted in polarization of the group and its high contributions to overall intra-group inequality. The tribal population in Travancore region is better off as compared to the rest of the state in terms of land holding and their command over wages (Kunhaman, 1985). This explains the polarization among scheduled tribes in the state. The migration process accentuates the stratification process as almost all the socio-economic groups (except for Tribals and Dalits) have substantial number of migrants in their fold. In short, the relative deprivations of workers from various socio-economic groups and the early endowments of certain caste/ religious groups, and the migration and the resultant increase in income explain the polarization, stratification and high within-group inequality.

In recent years, the scope of the process of accumulation by dispossession increased by leaps and bounds (Ajith, 2002; Ravi Raman, 2010). The owner class which includes owners of star hotels and bars, gold and jewelry merchants, forest product and timber contractors, big plantation owners, quarry owners etc. started indulging in widespread tax evasion and corruption and cornering of state's resources at a time when tertiary and construction sector started booming (Ravi Raman, 2010:146). There are studies, which pointed out that commodity taxes of various kinds are not fully tapped; it is estimated that sales tax evasion is as high as 35 percent (Rakhe, 2003). According to one line of argument, exclusion of income from assessment of luxury hotels and bars, understatement of forest products and non-statement of revised lease rent in plantation belts are the other reasons for state government's low revenue mobilization in Kerala (Ravi Raman, 2010:146). The stagnant tax-SDP ratio and declining tax buoyancy in a growing

economy corroborates the above argument in a huge shadow economy which is characterized by large scale tax evasion and corruption[11] (Rakhe, 2003).

The above discussion reveals that consumption expenditure and private investment are the two important sources of growth in recent years. The migration-induced consumption expenditure resulted in polarization among the non-agricultural workers. The decline in welfare spending by the state, as discussed elsewhere in this chapter, accentuated the polarization among this class. The investments by the owner class led to the stratification of this class vis-a-vis the rest of the population. The decline in the power of the trade unions and creation of opportunities for tax evasions, as discussed in the previous paragraph, increased the scope for both accumulation through dispossession and extended reproduction. This further stratified the owner class. Hence, it can be concluded that the economic growth and worsening inequality in Kerala, of late, are intertwined.

The uniqueness of this study as transpired from the above discussion is as follows.

a) Large Scale Empirical Study Using NSDP and NSSO Data:

To understand growth and distribution dynamics in Kerala since 1970s, large scale data like NSDP and NSSO Consumption Expenditure are used in this study.

National, regional and district level growth dynamics are captured by using the data on state domestic product. Sector-wise, region-wise and class-wise inequality dynamics are capture by using NSSO unit record data.

b) Field Work Based Explanations:

This study uses field research based explanations for understanding the underlying factors of growth turnaround. Changes in class structure, proletarianization of classes are also explained from the field research. Stratification, polarization and high within-class inequalities, which are turned

out from the decomposition analysis, are also explained by field survey data.

c) Macro-Demand Side Explanations for Growth Turnaround:

This study carefully periodized the growth of NSDP from 1960-61 to 2009-10. It is found that the period from 1987-88 to 2009-10 is a high growth phase. This study deployed Keynesian aggregate demand analysis to understand the causal structures of high growth in a demand constrained economy like Kerala. By piecing together different data sets on consumption expenditure, investments, government expenditure and net exports it is found that growth in consumption expenditure and investment are the underlying factors in the recent high economic growth.

d) Class Structure:

This study used Marxian class schemas, developed in Vakulabharanam (Vakulabharanam, 2010), to capture how different classes perform in the accumulation process and to understand the variations across time in the class structure in Kerala. The class structure reveals that elites from urban and rural areas are better placed than the working classes, in terms of the levels of consumption expenditure. The changes in class structure show that the major gainers from the growth process change over time.

e) Changes in Class Structure:

This study captures the changes in class structure in Kerala over the last three decades. The increase in the number of urban elites, petty owners, and non-agricultural workers and the drastic decline in the number of agriculture workers has revealed from the analysis. The proletarianization of certain classes also comes to the fore through this analysis.

6.5 Conclusion

The turnaround in economic growth in recent years in Kerala is contributed by the growth in consumption expenditure and investment. It also

revealed that migration played a crucial role in augmenting private consumption. It is revealed that remittances and borrowing are the major sources of household investment in recent years in Kerala. The episode of high growth witnessed drastic distributional changes in Kerala. It created polarization in rural sector and widespread stratification in the urban sector. The decomposition results along the class axis show that stratification among urban elites and rural elites, sharp differences in skill levels and migration induced polarization among non-agricultural workers as the reasons for increase in intra-class inequality. The decline in social spending by the state accentuated the inequality. The emergence of a new class structure, the recent episode of widespread accumulation by dispossession also contributed to the increase in inequality. In short, the migration-induced consumption and the resultant polarization of non-agricultural workers, the increase in investments and the stratification of owner/manager class show that high growth and high inequality are intertwined. The initial endowments (education, employment etc.) of certain caste groups and communities played a crucial role in the stratification and polarization stories along socio-economic axis. In short, the withdrawal of state from redistributive policies, the wide spread accumulation by dispossession, the decline in trade union power accentuated both inter and intra-group/class inequality and it buttresses our understanding that growth and inequality are intertwined.

TABLE

Table 6.1: Monthly Per-Capita Off Take of PDS Rice (in K.g)

Class/Sector	1993-94	2009-10
Urban Workers	4.96	1.92
Urban Total	4.94	1.55
Non-agri workers	5.16	2.29
Agri Workers	5.67	3.39
Rural Total	5.25	2.01

Data Source: NSSO Unit Record Data 50th & 66th Round

ENDNOTES

[1] This process stratifies the small peasants as farmers with crop mix dominated by food crops earn much less than the farmers whose crop mix is dominated by cash crops.

[2] In Kerala Indian National Congress (I) led United Democratic Front and Communist Party of India (Marxist) led Left Democratic Front alternated the government from 1970 onwards.

[3] From 1980s to mid-1990s the number of labour disputes declined drastically compared to previous decades. Heller (2000) explained reduction in labour militancy during this period was because of the class compromise between workers and the capitalist in which workers are ensured a minimum wages, periodic revision in wages, social rights and union control over labour market through the mediation of state. Capitalist got the right to intervene in the labour process in return.

[4] The reduction in public expenditure on universal programmes like health care, public distribution system etc.is more pronounced since mid-1990s (Oommen, 2010)

[5] Data on pension is taken from Economic Review (Various Issues) and MPCE of agricultural worker is estimated from NSSO Data.

[6] Kerala's prominent untouchable castes include *Pulayas, Mannan,Vettuvans,Koodans, Kanakkans, Pullavans, Parayans*. Among these caste groups, Pulaya represent about 45 percent of untouchable group. Most are agricultural field labours (Franke,1994:85).

[7] *Nayars* were originally known as *Malayala Sudaras*. This caste group came to include 20 sub-castes (Fuller 1975: 299). Among Nayars, *Kiriyattils Nayars* enjoyed the highest social status. They took the role of landlords and shared *kannam* tenancy rights (a superior tenancy right) with *Ambalavasies*. The other *Nayar* groups were traditionally house servants, tenants, and farm labours of *Namboodiri* estate (Gough 1961: 306-309).

[8] Majority of *Ezhavas* were coconut tappers, field labours and inferior tenants. They are the largest caste group in Kerala. They were considered untouchables; ritually superior to scheduled castes (Gough, 1961: 405).

[9] *Ezhavas* and Syrian Christians were barred from taking up government jobs till the end of 19th century (Jeffrey, 1976). *Nayars* were allowed to take low grade jobs in the government during this period (ibid).

[10] There had been a widespread conversion of Dalit and marginalized communities into Christianity during 18th and 19th centuries in South Kerala to escape from the clutches of rack rented caste system (Ramachanderan 1997: 303-304). These groups constitute the major chunk of backward class Christians. Moreover, the Portuguese missionary endowers in the 16th century resulted in widespread conversion of fisher folks into Christianity in Kerala (Fuller 1976). Majority of them are Roman Catholics with Latin rites (ibid). As in the case of Dalit Christians, this group is also the part of backward class Christians. Moreover, the Table 3.6 shows that Backward Christians are not far better than Scheduled

Castes and Scheduled Tribes in terms of MPCE. The table further reveals that between-caste inequality is on the rise over the years in Kerala.

[11] These forms of accumulation by dispossession largely benefited the classes like the large and petty owners (Field Research Notes, 2012-13).

Chapter 7

Conclusion: Regimes of Growth and Distribution in Kerala

7.1 What Explains the Patterns of Growth and Distribution?

This section attempts to provide a political economy based narrative of the regimes of growth and distribution in Kerala. The production and accumulation dynamics of Kerala economy are split into different periods: periods of stable reproduction, followed by a crisis, which results in the rise of a new period of accumulation that is qualitatively different from the previous regime. This narrative looks into the development process of the Kerala economy through, economic growth, changes in policy structures, and changes in labour process, caste and class axis. The period from 1971-72 to 2009-10 can broadly be described in terms of two regimes in this study. The first regime is from 1971-72 to 1987-88 and the second regime starts from 1987-88 and continues till 2010. The first regime is a part of the whole gamut of developments in socio-economic and political realms in Kerala (like land reforms, public distribution system, expansion of free schooling system etc.), particularly in the southern region since the later half of 19th century. This regime is characterized by the effective intervention of the state in labour processes in favour of the working class so that they could corner a fair share of overall social product. During this period, the region witnessed mass struggles and state responses in the form of progressive welfare policies. However, the second regime is marked by the adoption of neoliberal reforms and the erosion of working class bargaining power. This period witnessed dismantling of progressive welfare spending in the guise of austerity and financial discipline[1].

7.1A Socio-Historic conditions that led to the first regime

The roots of the first regime of caste and class mobilizations and mass struggles by the people can be traced back to the activities of Christian missionaries, Travancore state and religious/social movements during mid-19th

century to early 20th century. The missionaries not only started schools but also hospitals and dispensaries. This increased the accessibility of lower caste/class people to health care in the region (Ramachandran, 1996:303-304). Moreover, they were the first organized modern group, which opposed caste discriminations, which were prevalent in Travancore from the second half of 19th century. In the later years, the work of missionaries particularly by the London Missionary Society (LMS) in the spheres of education, health, abolition of slavery and other forms of caste oppression were appreciated by the then Resident Sir James Munro (1810-1812) and he absorbed important features of missionary into state policy (ibid). Moreover, the favored treatment that Christians received from the British officials led to their upward mobility. The high caste Hindus, who began to lose their prominence, compelled the government to adopt a secular modern educational system (Nair, 1976). In Kerala, in the latter half of the 19th century and the first half of the 20th century, like some other parts of the country, witnessed caste based social reform movements which were spearheaded by untouchable and *Sudra* caste groups. These caste groups include Ezhava, Pulaya and Nayars. In later years, Christians and Muslims joined the movement. The main demands of these groups were abolition of un-touchability, right to use public roads, bathing places, water sources etc. They also demanded entry into Hindu temples, education and employment in government sectors (Ramachandran, 1996: 305-313). Another notable feature of this movement was that they gave importance to education and started schools and colleges in large numbers. In northern Kerala, movements against caste oppression and anti-feudal movements were part of freedom struggle and left movements. There had been an unprecedented demand for labour (both skilled and unskilled), both in British Indian provinces and overseas British territories, because of the infrastructural and developmental activities for setting up industries, constructing new roads, canal systems, railways ports and harbors, and the development of facilities like schools, irrigation, public health and sanitation and the abolition of state monopoly of

spices and removal of restrictions on trade between Travancore and British India. This unprecedented demand for workers helped the upward mobility of educated from the untouchable communities (Nair, 1976). However, it was the communist movement, which provided a new direction to these movements by organizing peasants, agricultural labourers, students, teachers, youth and women under its umbrella and acted as an agent of politicization of people of Kerala during early 20th century (Namboodiripad, 1964: 419). The noteworthy feature of communist movement in Kerala was that it gave political and philosophical direction to a spectrum of movements ranging from freedom movements and movements against autocracy and monarchy in southern Kerala and anti-caste movements in the Malabar and Canara region of the north (*Ibid*). Another noteworthy contribution of the Communists, who came to power in Kerala in 1957, was that it streamlined the creation of a new democratic and prosperous Kerala through land reforms, public distribution of food, educational reforms, decentralization, and creation of broad based health care system (Ramachandran, 1996:313-315). The subsequent governments in Kerala were, in a sense, simply implementing these projects.

The democratically elected governments in power responded to the organized demands from the people with a set of redistributive programmes like land reforms, public distribution system, free and compulsory primary education system, massive health care system, etc., that made the Kerala society more equitable and thus resulted in high social sector development (Casinader,1995).

The Kerala Agrarian Relations bill was introduced towards the end of 1957 in the state legislative assembly. But it was in 1969 after the constant struggle by the tenants and landless labour, the government in power implemented land reforms. The landed elites got eleven years gap to do several malpractices to circumvent the land reforms act. In Kerala, land reforms were implemented under three schemes. The first one was to confer ownership rights on the cultivating tenants of the land leased by them. The second scheme of the

act was to purchase 3 cents (0.03 acres) of hutment dwellers' homestead in city or in municipality or 10 cents in Panchayat area from their landowners. The third scheme of the land reform act was to take possession of the surplus land through the imposition of ceiling law and distribute the surplus land among peasants owing less than one acre of land (Radhakrishnan, 1981). Under the first scheme, the land tribunal had received 36,50,943 applicants for its disposal, and out of them, 36,37,959 cases (99.64 %) were disposed off, while 24,59,491 of them (67.37%) were found genuine and allotted land. The total area disposed off under this scheme was 19,67,593 acres and the estimated average area per tenanted plot turned out to be 0.80 acre. Under the second scheme, land tribunal had 4,39,690 cases for disposal. Of this 4,35,555 cases were disposed off (99.06 %), of which 2,69,021 cases were found genuine (61.76%). The average area received by the homestead tenant household turned out to be 0.08 acre. Under the third scheme about 1,15,015 acres of land were identified as surplus land. However, only 50,384 acres (43.8 %) were distributed among 80,825 persons. The average area that received per beneficiary was 0.62 acre (ibid). Hence, it is clear that the first two schemes were implemented successfully and the third one was a failure in a big way. Hence, Kerala's land reforms could not be implemented in the way they were contemplated (Lieten, 1979). Though land reforms in Kerala are claimed to be the most successful and radical ones in India, they could ensure only $1/12^{th}$ of an acre to the agricultural tenants and workers in the region. Moreover, land reforms made some changes in the labour market by reducing the dependence of agricultural workers on wage labor in agriculture and land became a supplementary source of their income (United Nations, 1975:72). These factors led to the improvements in wages in agriculture sector with the increase in the reserve price of labor.

The public distribution system (PDS) was one of the major redistributive programmes in Kerala, which came into existence in the early 1960s. In Kerala, public distribution of food takes place at two levels[2]: a) to primary school

children approximately, between 6 to 10 years old (in 1987 this program was extended to upper primary level) and b) to general populace through fair price shops. In 1961, the present school feeding programme came into existence. The mid-day meals contain approximately 410 calories and 15 grams of protein. This is supposed to meet ¼ of normal daily requirement of children. In 1961, 72 % of the pupils were covered under the mid-day meal scheme. By 1989-90, the number increased to 79 %. Another significant aspect is that every child is fed in school for an average of 110 days in a year. This programme has two redistributive aspects: a) in favour of low income groups, b) in favour of low age groups who are open to malnutrition. In short, this programme was designed to secure redistribution in favour of lower income group through lower age group (United Nations, 1975:41-48).

Food distribution through fair price shops was virtually complete in Kerala. Only those households, which are classified as full producers of food grains were excluded from this programme (United Nations, 1975: 43; Kannan, 1995). Of 35 lakhs ration cardholders in the state, only 3 percent are regarded as full producers in 1970-1. In 1991, ration cardholders increased to 50.57 lakhs. In 1960-61, the fair price shop accounted for 13 percent of the total cereal consumed in a year. However, in 1971-72, it increased to 37 percent. In subsequent periods, the dependence of people on fair price shops increased substantially. The per capita consumption of rice and wheat had been improving from 1975 to 1991. It increased from 47.1 to 69.6 Kg during this period (Kannan.1995). In short, the above details show that government intervention through public distribution system played an important role in ensuring adequate supply of food stuffs in a food deficit region[3].

The spread and accessibility of medical care system is a major issue to which better levels of health could be attributed. In Kerala, medical care system operates with less discrimination. The usual indicators which demographers and economists use to understand the expansion and access of medical care facility

are bed population ratio and utilization ratio (percentage of people treated in hospital). In 1961, the hospital-bed per population ratio was 85.7 percent and utilization ratio was 80.2 % which was the highest in the country (United Nations, 1975:138-139). The higher utilization ratio is due to the widest catchment area for its health system (Raman Kutty, 2000).

Apart from the above mentioned government policies, workers' struggles in agriculture and industrial sectors were the facets of the first regime. Moreover, this period marked the beginning of gulf migration which played an important role in improving the standard of living of people as it resulted in the inflow of remittances and eased the growing unemployment problem which was looming large during late 1970s and 1980s (Kannan, 1995). Moreover, the 1980s witnessed two remarkable reforms in Kerala. One is pensions for agricultural workers for those who crossed 60 years and the second one is unemployment insurance scheme. Agriculture pension covered 17 percent of total labour force in the rural area in 1987 and unemployment doles were paid to 2,05,556 persons in the same year. In short it can be concluded that these are the factors played a crucial role in reducing inequality in Kerala during 1980s (Franke, 1994: 179-180).

7.1B Second Regime

Strong working class movement was the hallmark of 1960s and 1970s in Kerala. This is evident from the high number of disputes and workers affected in the economy during this period as discussed in Chapter 4. The workers' resistance towards mechanization resulted in capital flight from Kerala to neighboring states and curtailed the possibility of increasing relative surplus value and thereby accumulation. These are the factors that led to the crisis in the first regime. The decline in the price of paddy, the increase in the prices of cash crops and soaring input costs including labour are the reasons for the decline in paddy cultivation. This led to the expansion of less labour absorbing cash crops in the state. Workers across sectors were successful in increasing the wages in

accordance with the changes in cost of living index. Cashew industry and coir industry suffered the brunt of the workers' agitation. Cashew industry relocated to neighboring states and coir industries became economically unviable. However, the newly elected CPI(M) led government in 1987 understood the urgency of mechanization and contemplated a plan to revive the industries in Kerala along with the trade unions (Isaac, 1991). However, during this period trade unions ensured minimum wage, social rights and union control over labour market through the mediation of the state (ibid). Because of this, there has been a drastic reduction in strikes since 1980s in Kerala. Moreover, the privatization in the economy reduced the scope of forging workers solidarity within and across sectors and industries nearly impossible. This period also witnessed a drastic increase in deficit in government finances. As a result of decline in the working class strength and increasing stress on exchequer, the government started to reduce its expenditures on social overheads like education, health care and other welfare spending. The central government policy of minimal state activities acted as the biggest motive and compelled the state governments to spend less (Issac, et.al, 2006). Substantial surge in private investment is another glaring facet of this period. This shows a change in the perception of entrepreneurs who considered Kerala as a problem state because of highly organized nature of workers in Kerala. The austerity measures by the government as a part of economic reforms too worsened the conditions of the poor in Kerala. Post-reform period witnessed a reduction in public expenditure on education, health care, food subsidy etc. This led to a massive rise in cost of living and inflicted a heavy toll on the purchasing power of working classes in Kerala.

Land in Kerala, like in many other societies, is an important asset. Of late, land became a speculative asset in Kerala, which is evident from the rapid growth of real-estate sector particularly in the post-reform period. This period also witnessed sporadic agitation for land by *Dalits*, Scheduled Tribes and other vulnerable groups[4]. Land plays an important role in developmental process by

having significant impact on income agricultural productivity, occupational choice, borrowing ability etc. In Kerala 85.4 percent of Scheduled Castes and 66.1 percent of Scheduled Tribes did not own any land other than homestead land in 2003 (NSSO Land-holding Survey, 59th Round). This is a pointer to the failed land reforms in Kerala.

The failure of vast sections of *Namboodiri* Brahmins, *Dalits, Advasies*, fisherfolks in taking to modern schooling, employment etc. during late 19th and early 20th century and their consequent marginalization; the upward mobility of sizable number of people from castes like *Nayers* and in later years Syrian Christians, *Ezhavas and* Muslims explain within and between class inequality. The relative deprivations of workers from various socio-economic groups (because of the cut in social overhead expenditure by the government), the migration of people from all the major socio religious groups accentuates the between and within-class inequality in recent years.

The high growth, which is fuelled by the consumption expenditure and private investment, brought about polarization among non-agricultural workers and stratification among owner/managers in recent years. This explains major part of the increase in overall inequality. The heterogeneity among urban and rural elites and the associated income differences explain the high within-class contribution. The polarization among rural non-agricultural workers, the earning differences among small peasants, the skill differences and associated income difference explains these classes high within-class inequality. Moreover, the recent episode of primitive accumulation (for detailed discussion see Chapter 6) also contributed to the increase in inequality.

Though Kerala's economy experienced spectacular growth over the last two decades or so, certain fault lines are very much visible in the economy. It is very well known that growth in sectors like construction and service is well connected to remittances. The growth of these sectors is adversely affected ever since the outbreak of the global economic crisis in 2008. It is because the world

economic crisis resulted in substantial reduction in the inflow of remittances particularly from gulf countries. Moreover, the export oriented manufacturing industries are also affected by the crisis. The high levels of private consumption expenditures in Kerala, as revealed from the field research and secondary data, are unlikely to continue in future. This is so because substantial part of the consumption expenditure is financed by debt and sale of asset (like land, gold etc.). This is evident from the high debt income ratio as discussed in chapter 5.

7.2 The Future of Kerala's Economy: Insights from the New Class Dynamics

During the current high growth regime, elites from rural and urban sectors and section of return-migrants started to venture in sectors like real estate, mining, quarrying and trade. These groups immensely benefited from primitive accumulation as discussed in Chapter 6. The increased scope for accumulation (both through extended reproduction and primitive accumulation) explains the increase in the number of big owners and petty owners. The increased scope for primitive accumulation and increase in the number of elites along with marginalization of working classes and socially and economically dis-advantaged groups, as explained in Chapter 6, shows the potential danger of social resentments, which will ultimately jeopardize the social cohesion among different class and social groups. The recent spurt in communal and social clashes in Kerala is a pointer in this respect.

7.3 Policy Recommendations

A different set of policies can be advocated in lieu of the present market friendly policies based on the study on kerala's growth and inequality dynamics.

1) Strengthen Public Distribution, Public Health Care and Public Education System:

As discussed in Chapter 6, public expenditure on public distribution system, health care and education can reduce within-class inequality. It can also reduce between-class inequalities through the increase in reservation price of workers. Moreover, a well-developed PDS system can curb inflation and can ensure that the benefits of increase in wages rates reach to the workers.

2) Progressive Taxation and Effective Tax Administration:

Chapter 6 and 7 show that there has been an increase in the number of owner/manager in Kerala. By bringing those classes under the purview of income tax could not only generate more revenue to the government but also reduce the stratification among urban owner/managers. Moreover, effective tax administration can put a tab on tax evasion, which is discussed in Chapter 6. This also yields more revenue to government.

ENDNOTES

[1] In 2001, the government, as a remedial measure for growing fiscal deficit, reduced social subsides including welfare pensions among other things. The semi-structural adjustment loan from Asian Development Bank and the Fiscal Responsibility Act of 2003 further reinforced the curbs on government spending on social overheads (Issac et.al., 2006).

[2] There are a number of public programmes and schemes for food distribution. However, in terms of volume of distribution of food and the number of people covered, these programmes are insignificant. So the discussion on PDS is confined to school-feeding programme and fair price shops. For a detailed discussion on welfare impact of public programmes and schemes in Kerala, see Kannan (1995).

[3] Kannan argued that universal PDS was the most important factor in reducing poverty during 1970s and 1980s (Kannan, 1995).

[4] There have been a number of movements of scheduled castes and tribes in Kerala of late (*Chengera* land struggle, *Muthanga Adivasi* Struggle are the prominent ones). These struggles are related one way or the other to land. For detailed discussion on these issues, see Ravi Raman (2002), Rammohan (2008).

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Kerala's growth and Inequality

Household Sample Survey Questionnaire

1. INTRODUCTION

1)Name of head of household		1) Sex		3)Age		4)Caste		5)Religion	
6)Place of birth		7)Father's name		8)Father's occupation					
9)whether any former member of the household migrated out any time in the past		10)If yes, number of members who migrated out (no of males and females)		11)Details of migrant's job and place of migration and reasons for migration					

2. HOUSEHOLD MEMBERS: GENERAL IMNFORMATION

Name	Sex	Age	Relationship to head of the household	Marital status	Occupations (list primary, secondary and other occupations)	Places of work	Literacy status	Educational level	If enrolled, give details of institution	Any other relevant information

3. Land Holding (in acre)

1) Owned	
2) Leased-in	
3) Otherwise possessed (neither owned nor leased-in)	
4) Leased-out	
5) Total possessed [items (1+2+3-4)]	

4. Income

Sources of income	Cash+ Kind	mode of payment (Piece rate, daily wages or salary)
1)Income from primary occupation		
2)Income from secondary occupation		
3)Income from income earning assets		
4)amount of remittances received during the last 365 days (Rs.). (see question no 2 .11)		
5)Total Income		

5. ASSET OWNERSHIP

Land	Area(In acre)	Value
1)Agricultural land		
2)Homestead land		
3)Any other land		
Buildings	No.,	Value
1)House		
2)Shops/commercial establishments		
3)Any other building		
Vehicles	No.,	Value
1)Motorcycle/Motor bike		
2)Car/Jeep		
3)Lorry		
4)others		
Domestic durable goods	No.,	Value
1)Refrigerator		
2)Electric mixer/grinder		
3)Kerosene stove		
4)Cooking gas + gas stove		
5)water pump set		
6)Induction stove		

Electric equipment		
1)Television		
2)Cable connection?		
3)Dish antenna		
4)DVD/VCD/CD Player		
5)Mobile phone		
6)Telephone (fixed)		
7)Ceiling fan		
8)Table fan		
9)Tubelights		
10)Electric mixer/grinder		
11)Electric heater		
12)Electric Iron		
13)Computer/laptop		
14)Washing Machine		

6. ACQUISITION AND LOSS OF MAJOR ASSETS OVER THE LAST 12 YEARS

Assets	Sale/loss of assets		Purchase/ acquisition of assets	
	Month	Price	Month	Price
Agricultural/Non-agricultural land				
House/any other buildings (specify)				
Gold, livestock, Motor vehicle (specify)				
Others (specify)				

Comments

7. Consumer Expenditure

Srl.No	Item group	during last 30 days		during last 365 days	
		Quantity	Price(Rs)	Quantity	Price(Rs)
1	cereals & cereal products (includes muri, chira, maida, suji, noodles, bread (bakery), barley, cereal substitutes, etc.)				
2	pulses & pulse products (includes soyabean, gram products, besan, sattu, etc.)				
3	milk and milk products (includes milk condensed/powder, baby food, ghee, butter, icecream, etc.)				
4	edible oil and vanaspati				
5	vegetables, fruits & nuts (includes garlic, ginger, mango, banana, coconut, dates, kishmish, monacca, other dry fruits , etc.)				
6	egg, fish & meat				
7	sugar (includes gur, candy (misri), honey, etc.)				
8	salt & spices and other food items (includes beverages such as tea, coffee, fruit juice and processed food such as biscuits, cake, pickles, sauce, cooked meals, dry chillies, curry powder, etc.)				
9	pan, tobacco & intoxicants				
10	fuel & light				
11	entertainment (includes cinema, picnic, sports, club fees, video cassettes, cable charges, etc.)				
12	personal care and effects, toilet articles and other sundry articles (includes spectacles, torch, umbrella, lighter, toothpaste, hair oil, shaving blades, electric bulb, tubelight, glassware, bucket, washing soap, agarbati, insecticide, etc.)				
13	consumer services and conveyance (includes domestic servant, tailoring, grinding charges, telephone, legal expenses, pet animals porter charges, diesel, petrol, school bus/van, etc.)				
14	rent/ house rent, consumer taxes and cesses (includes water charges, etc.)				
15	medical expenses (non-institutional)				
16	**sub-total** *(items 1 to 15)*				
17	medical (institutional)				
18	clothing, bedding and footwear				
19	durable goods				
20	**sub-total** *(items 17 to 20)*				
21	average monthly expenditure for items 17 to 20 [*item 21* x *(30÷365*)]				
22	**monthly household consumer expenditure** (*item 16 + item 21*)				

8. INDEBTEDNESS

8.a. Details of Outstanding Loan

Loan no	Month and year of borrowing	Principal	Collateral	Rate of interest	Amount outstanding			Amount repaid	Source of borrowing	Purpose of borrowing
					Principal	Interest	Total			

8.b. Details of Loans during Last 12 Years

Loan no	Month and year of borrowing	Principal	Collateral	Rate of interest	Month when fully repaid	Amount repaid			Source of borrowing	Purpose of borrowing
						Principal	Interest	Total		

9. MORBIDITY

a. Details of Diseases during the last one year

Age	Sex	Nature of disease	Treatment details

10. Public Distribution System

Type of card - APL/BPL/Other (specify)		What all do you buy from the ration shop generally?		Are you satisfied with the existing ration shop system?
If the household does not have a ration card, reasons for not having a card:			Comments:	

11. Details of Availing Welfare Schemes

Name	Age	Welfare Schemes	Details of Benefits
comments			