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**KERALA ECONOMY:
GROWTH, STRUCTURE, STRENGTH AND WEAKNESS**

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Kerala Economy: Growth, Structure, Strength and Weakness

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Abstract

This paper follows the course of Kerala economy from the early historic period till date. It argues that contrary to popular impressions and scholars' narratives, the state's economy was growing when the foundations of Kerala's human development were laid. This period of expansion was followed by a prolonged period of slackening economic growth (1955-56 to 1986-87). There was a turnaround in economic growth from 1987-88. The economy despite the high growth suffers from some major weaknesses. But the paper argues that Kerala has sufficient potential for much faster economic development in the context of globalized world and knowledge society, provided there is a change in the mindset of the people, government, political parties, civil society and the media.

Key Words:

Kerala Economy, Growth, Strengths, Weaknesses, Potential

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Kerala Economy: Growth, Structure, Strength and Weakness

In this paper, an attempt is made to track the course of economic development of Kerala right from early historic period till date. The paper is divided into four sections. The first section pieces together the limited information available from scattered sources to trace the evolution of Kerala economy from early historic beginnings till the formation of the state in 1957 and in the subsequent period. Section two describes the characteristics of the economy and the sectoral changes in state income and employment. Further, it goes into details about the agricultural, industrial and service sectors and explores the reasons for the growth or the lack of them. Section three goes into some of the weaknesses of Kerala economy like unemployment, dependence on external markets, degradation of environment, over exploitation of natural resources and deteriorating fiscal position in the context of the emerging 'second generation problems', arising from the very success of Kerala in social development. Section four discusses the potential of the state for faster economic growth to sustain its social development and argues for a change in policy framework and mindset of the people, government, political parties, civil society groups and the media.

Section 1: Course of Kerala's Economic Development

1.1 Developments in the Early Historic Period

The much acclaimed development experience of Kerala is often portrayed as a paradox of social development despite economic stagnation or slow growth of its economy. But this description applied largely to the 1970s and the first half of the 1980s when Kerala economy went through a long phase of near stagnation (Kannan 1990; Subrahmanian 2005). It may not be quite true when one takes the state's economic history over a longer period, from its early history onwards.

The course of economic development of the state is closely related to its location, climate and topography. In a way, Kerala's unique pattern of development and its population profile are products of its history as much as of its geography. The location of the region on the Arabian Sea coast permitted trading and cultural relations with outside world. Musiris situated on the coast and the numerous minor ports attracted traders from around

the world.¹ These ports developed into centres of trade between the Arab countries, North Africa and the Roman empire (Kerala Council for Historical Research 2010; Tharakan 2005). Arabs, Jews and Christians first came to Kerala as traders. According to Tharakan (2005)

‘The overwhelming availability of Arab accounts of the Kerala region known as Malabar do indicate the importance of Arabs in the overseas trade originating from this region. In 10th and 11th centuries, trade from India to West was controlled by Arabs of Morocco, Tripoli and Tunis; who operated from Aidhab on the Red Sea. It is said that half the ships from Aidhab went to Gujarat while the other half went to Malabar. There were several Arab Muslim settlements on the West Coast of India, which might have served to strengthen this trade. Similarly, there are evidences of Chinese trade relations with Kerala. As a result of such trade, use of money and different types of coins increased in this region, leading to minting of coins here itself’.

The growth in trade had increased the production of spices and other cash crops which in turn have generated more trade (*Ibid*). But there was not much growth in manufacturing during this period. ‘Kerala could sustain itself as a trading region without a manufacturing base. This might have led to the fact that the Malabar Coast, though acknowledged for long as an important trading region, never developed a manufacturing hinterland like other trading regions of India’ (*Ibid*).

The large proportion of Christians (19.02 percent) and Muslims (24.70 percent) in the state's population may be partly due to this historic trading and cultural contacts rather than through Muslim conquests, as in rest of the country. The symbiosis of different religious groups and cultural streams has led to communal harmony and social stability in the state.² The historic and cultural contacts with the Arabs helped Malayalees to easily avail of employment opportunities following the oil boom in the Arab world from the 1970s. As will be seen later in this paper, it is the remittances from emigrants especially those in the Arabian Gulf countries which have helped to sustain Kerala economy in recent decades.

1.2 Developments in the Modern Period

The region was the first centre for European colonization in India following the landing of Vasco da Gama in Calicut in 1498 AD. Portuguese conquest of the region was followed by those of the Dutch and the British. However, except Malabar, the other parts of the present day Kerala viz. Travancore and Cochin³ were not directly ruled by the British.

Almost all the present differences between Kerala and the rest of the country in social development can be traced at least to the last two centuries. It may be noted that the princely states of Travancore and Cochin had established very clear leads in all indicators of social development over other princely states and British India, much before independence (Issac and Tharakan 1986; Nair 1989; Saradamoni 1994; Ramachandran V K 2010). When social development was gathering momentum in the erstwhile Travancore and Cochin states during the 19th century and the first half of the 20th century, there was large scale economic expansion to support it.

Both in Travancore and Cochin, area under cultivation especially that of cash crops like coconut⁴, tea, coffee, spices and rubber, was constantly expanding. Many of these important crops were introduced by the Europeans in Kerala from their other colonies in Africa and Latin America.⁵ The Europeans initiated cultivation of some of these crops under the plantation system in vast tracts of forest and hilly areas. The local population followed suit. As most of the expansion of area under crops, both cash and food crops had taken place in virgin forest land and also in land reclaimed from backwaters, the period also saw increase in agricultural productivity (Panikar et al. 1978). Along with agricultural production, agro-processing industries like coir and cashew also expanded (Issac and Tharakan 1986). In Malabar, Basel Mission, a Swiss missionary cum trading organization introduced modern factories using the latest available technologies in spinning and weaving and also in manufacturing of roofing tiles (Raghaviah 1990). Large chunk of capital invested in modern industries, together with the spurt of investment in plantation companies, enabled Travancore to overtake other major Princely States in total corporate paid-up capital (Mahadevan 1991). The period also witnessed large growth of exports leaving a favourable balance of trade. Both the net barter terms of trade and

income terms of trade were favourable to the state during most of the pre-independence period (Panikar et al. 1978; Singh 1944).

The growth of the banking business in Travancore and Cochin was well ahead, not only of Malabar, a part of Madras Province of British India, but also of other provinces and regions. During 1926-30, Travancore alone accounted for about one-fifth of the total number of banks then existing in the combined area of erstwhile British India and Travancore. Around 1936, the population served by joint-stock banks in Travancore was about 1,85,000 against 2,76,000 in undivided India as a whole and 79,000 for USA and 20,000 for France (Muranjan S.K 1952 as quoted in Oommen 1976). In the range of area and population served by an office of a commercial bank, Travancore-Cochin had been credited with the highest position at the time of Indian independence. The average area served by an office of a commercial bank in Travancore-Cochin in December 1949 was 18 square miles as against 222 for the country as a whole. Average population served by a commercial bank was 16,000 as against 65,000 for the country as a whole (Government of India 1953). Further, on 31 March 1953, Trichur, a small town in the erstwhile Cochin region, had the second largest number of registered offices (19); the first being Calcutta (21) (Philip 2006; Oommen 1976).

The economic expansion of Travancore state had helped its revenue raising capacity. Unlike today, revenues of the state then included income tax, excise duties and customs duties (Singh 1944). It was the continuous growth in revenue together with the state's expenditure priorities in favour of social services and the lower cost of providing education mostly at the school level and health care mostly at the primary level that brought about the phenomenal social development in pre-independence period⁶. It is often overlooked that in the matter of per capita income, Kerala was above the all India average in 1950-51 and 1955-56 (National Council of Applied Economic Research 1967; Albin 1990). Unlike today, both in per capita terms and in the share of industry in the state income⁷, Kerala's position was higher than the national average in 1950-51 and 1955-56.

1.3. Stagnation Phase

The economy started slowing down during the period 1955-56 to 1965-66, almost coinciding with the first decade of the formation of Kerala. Brief spurt in economic activity took place during the period 1965-66 to 1970-71. The annual growth rate (exponential) of state income between 1971-72 and 1986-87 was just 1.88 per cent. There was slackening of growth in all sectors of the economy during this period.⁸ During the 1970s, the growth in income originating from the primary sector was negative. Both during the 1970s and the 1980s growth rates in all the three sectors were lower than those of the country.

1.4 Turnaround Phase

There has been a turnaround in the economy from 1987-88. The turnaround coincided almost with the economic reforms in the country characterized by liberalization, privatization and globalization. Growth rate of the state income at constant prices during the period 1987-88 to 2000-01 rose to 6.0 per cent. Growth rate during the period 2000-01 to 2006-07 was higher at 8.1 per cent and was more than that for the country (7.1 per cent). The sectoral composition of the growth during 2000-01 to 2006-07 shows that it was largely the secondary sector followed by the tertiary (service) sector which has contributed to the growth during this period (11.5 per cent and 8.7 per cent). The growth rates of both these sectors were higher than that of India (8.2 per cent and 8.5 per cent). However there was only marginal growth in the primary sector (1.8 per cent) which was lower than that of India (2.8 per cent). As a result of the higher growth in recent years, Kerala's per capita NSDP in 2006-07 was Rs.36,907 against the national average of Rs 29,524 in 2006-07 (GoI 2009a). The sectoral composition of income of Kerala and India from 1970-71 to 2008-09 is given in Table 1.

Table 1: Sectoral Share of State Income (NSDP)
(at Current Prices, in percent)

Year	Primary		Secondary		Services	
	Kerala	India	Kerala	India	Kerala	India
1970-71	49.44	45.08	16.32	18.69	34.23	36.03
1980-81	39.23	39.42	24.36	21.47	36.39	39.10
1987-88	34.00	33.67	24.08	22.00	41.93	44.34
1993-94	32.23	33.10	20.32	21.08	47.45	45.82
1999-2000	20.97	28.53	20.67	20.61	58.36	50.86
2004-05	16.25	23.11	21.22	22.90	62.53	53.98
2006-07	16.04	21.97	21.72	24.22	62.25	53.80
2007-08	15.1	21.2	24.1	23.9	60.8	54.9
2008-09	14.0	20.1	24.7	23.4	61.3	56.5

Source: Central Statistical Organization, various years and EPW Research Foundation 2009

The table shows the overwhelming importance of tertiary sector in the state income from 1987-88 onwards. It also shows the fast declining contribution of primary sector. The share of secondary sector is increasing slowly from 1999-2000.

Table 2: Sectoral Share of Income at Disaggregated Level
(at current prices, in percent)

Sector	1987-88		2004-05		2008-09	
	Kerala	India	Kerala	India	Kerala	India
Agriculture, Forestry, Fishing & Logging,	33.8	31.2	16.1	20.3	13.6	17.8
Mining & Quarrying	0.1	2.4	0.2	2.8	0.4	2.3
Primary	34.0	33.6	16.2	23.1	14.0	20.1
Manufacturing	13.7	15.2	7.6	13.7	7.1	13.7
Construction	10.0	5.7	12.4	8.1	16.8	9.2
Electricity, Gas & water supply	0.4	1.1	1.1	1.1	0.9	0.5
Secondary	24.1	22.0	21.2	22.9	24.7	23.4
Trade, Hotels & Restaurant	15.1	13.6	23.6	17.7	25.0	18.2
Transport, Storage & Communication	6.9	5.2	9.7	7.8	8.2	7.9
Financing, Insurance, Real estate & Business services	5.7	11.5	15.1	14.0	14.3	16.5
Community, Social & Personal services	14.2	14.1	14.1	14.5	13.9	14.0
Tertiary	41.9	44.4	62.5	54.0	61.3	56.5

Note: Income refers to NSDP and NDP for Kerala and India respectively

Source: Same as Table 1

Table 2 shows the steep decline in the share of agriculture and allied sectors in the turnaround phase. It also shows the decline in the share of manufacturing sector. There was a steep increase in the share of almost all sub sectors of the tertiary sector, except community, social and personal services.

The sectoral composition of employment (UPS⁹) in 1987-88, 1993-94, 1999-2000 and 2004-05 is given in Table 3. The sectoral composition of employment also shows the dominance of tertiary sector from 1999-2000 onwards. However, its share in employment was lower than that of income. The primary sector was second in importance in employment. Its share in employment exceeded its share in income. The share of secondary sector in employment exceeded its share in income from 1993-94 onwards. In this respect, the secondary sector in Kerala differed from the all India pattern.

Table 3: Sectoral Share of Employment

(UPS, in percent)

NSS Round	Kerala			India		
	Primary	Secondary	Services	Primary	Secondary	Services
43 rd (1987-88)	44.2	22.7	33.0	62.5	16.7	20.9
50 th (1993-94)	43.5	23.8	32.7	61.7	15.7	22.6
55 th (1999-2000)	33.1	28.3	38.6	58.5	16.8	24.7
61 st (2004-05)	31.6	28.0	40.4	54.2	19.4	26.4

Source: Sarvekshana 1990; National Sample Survey Organization, 1997, 2001, 2006 and applying population figures from the Census of India

A combined reading of Tables 1 and 3 indicates the lower growth rates in employment than that of income. This implies that the economic growth even during the turnaround phase was inadequate to meet the chronic unemployment which had emerged as the most important problem of the state eclipsing its other achievements and limiting its further social and economic development, as will be seen later.

Section 2: Structure of Kerala Economy

2.1 Agriculture Sector

We have noted earlier how the share of primary sector in NSDP has been coming down steadily. This is largely due to the decline in the share of agriculture and allied services. There are many reasons for this decline. The area under crops is coming down steeply. The index of area under all crops (Base –average of triennium ending 1993-94) came

down to 83.2 in 2008-09. Area under all crops except plantation crops showed decline. The decline in area under food grains was particularly sharp. The index came to 43.1 in 2008-09. Table 4 shows that Kerala's agriculture is dominated by cash crops like spices, rubber, tea, coffee, cashew and coconut. Most of these cash crops are exported to outside the state and to other countries.

Table 4: Area of Principal Crops in Kerala, 2008-09

Crops		Area (in hectares)	Total Cropped Area (in percent)
I	Cereals (of which)	237550	8.81
1.1	Rice	234265	8.69
II	Pulses	3903	0.14
III	Spices (Of which)	304595	11.30
3.1	Pepper	153711	5.70
3.2	Ginger	7421	0.28
3.3	Cardamom	41588	1.54
3.4	Arecanut	97492	3.62
IV	Cash Crops (of which)	1480695	54.94
4.1	Cashew nut	53007	1.97
4.2	Coconut	787769	29.23
4.3	Coffee	84696	3.14
4.4	Tea	36557	1.36
4.5	Rubber	517475	19.20
V	Other Crops/ Food articles (of which)	198193	7.35
5.1	Tapioca	87241	3.24

Note: percentage may not add up to 100 as a few crops are not included here.

Source: Government of Kerala 2010

The production of cereals comprising mostly of rice, the staple diet of Malayalees has been coming down due to the failure to offset the decline in area by increasing productivity. The index of production of cereals came down to 56.3. The index of production of pulses came down more steeply to 18.3 (Government of Kerala 2009). As a result, the dependence of Kerala on imports of food materials from elsewhere is increasing.¹⁰ The crops which are showing large increases in area, production and productivity is rubber and to some extent, spices. Kerala accounts for 92 percent of the production of natural rubber in the country. The share of cardamom is 78 percent. The state accounts for 67 percent of the production of pepper and 45 per cent that of ginger.

The share of Kerala in the production of coconut is now 43 percent. The share of Kerala in the production of this crop has been coming down.

2.2 Industrial Sector

During the nineteenth and the twentieth century, industries like coir and coir mattings, cashew nuts and paper products developed in Travancore. In Malabar, the manufacturing of roofing tiles and handloom products developed. There was a large growth of chemical industry during the twentieth century even before independence, taking advantage of the proximity to Cochin port, the availability of waterways to transport bulk raw materials through barges, the availability of cheap hydel power and fresh water (Thomas 2004). The industrial units also used rivers for discharge of effluents.

But the share of manufacturing sector today is less important in Kerala than in India. In the share of manufacturing in SDP, Kerala lags far behind Gujarat, Haryana, Maharashtra and the neighbouring states of Tamil Nadu and Karnataka. In fact, Kerala's rank in the share of manufacturing is the thirteenth among the fifteen major states.

A feature of Kerala's industrial structure is the large share of unregistered units. The share of this sub sector in the state income originating from industries¹¹ was 52.4 per cent as against 32.0 per cent for the country in 2006-07. One of the main reasons for the state's low level of industrialization is the absence of major industrial minerals like metallic ores, coal and crude oil. Agro based industrial raw materials like cotton, jute, sugar cane and oil seeds are also not produced in the state in any large quantity. The only commercially exploitable mineral resources are ilmenite, rutile, zircon and sillimanite found along the beach shores. As for rubber, the major agricultural raw material of Kerala, most of the rubber based industrial units were located outside the state as the principal markets of tyre and other rubber goods lay outside the state. There was also very little value addition in the exports of Kerala.

Till the 1990s, prime importance was given to public sector in the industrialization of the country. Most of the public sector industrial units were started by the central government. But Kerala had received only a small share in central government's investment in industrial units. This is yet another reason cited for the relatively limited development of

industries in Kerala. The share of central government investment in fixed capital of public sector industrial units in the state is only 2.4 percent of the total investments as against 17.8 percent in Maharashtra, 7.6 percent in Tamil Nadu and 6.9 percent in Andhra Pradesh. This share has been coming down steadily (GoK 2009). In fact, after independence, the major industries which came up in the central government sector were a pesticide unit, a news print unit and a ship building unit.

There are other possible reasons for the industrial backwardness of Kerala during the era of economic planning in India. The emphasis on basic and heavy industries like iron and steel machinery, chemicals and petroleum refining in the early decades of the planning era in India led to the state without raw materials for these industries lagging behind other states in industrial investment both in the public and private sector. The import substitution based economic development strategy followed by the country till the 1990s retarded the industrial development of Kerala situated far away from the major input and the output markets in the country. With the adoption of this strategy, the geographic location of the state which was an advantage for an export oriented state historically turned out to be its disadvantage. The central government's export import policy supporting largely manufactured export through larger subsidies and import entitlements and duty drawback schemes did not benefit Kerala which was exporting mostly agricultural products or agro based industrial products with little or no import content. Even the exchange rate policy of keeping an over valued fixed exchange rate till the 1990s affected the rupee value realization of its exports as well as its non-resident Malayalees (NRMs) remittances (Thottathil 1988; George and Remya, 2010).

Construction, a sub sector of the secondary sector has been booming in recent periods. The share of this sector in the state income of Kerala was 12.4 percent as against 8.1 percent for India in 2004-05. This sector accounted for 11.8 percent of its employment in the state as against 6.1 per cent for the country.

2.3 Tertiary Sector

As was seen from Tables 1 and 3, the tertiary sector is the most important sector accounting for 62.5 percent of the state income and 40.4 percent of the employment in

2004-05. There are several reasons adduced for the growth of the tertiary as also the construction sectors. One major factor is the large scale remittances received from Non Resident Malayalees (NRMs). These have boosted consumption in the state. The state which ranks only fourth in per capita NSDP ranked first in per capita consumer expenditure in 2004-05. The NRM remittances helped the growth of trade, hotels and restaurants, transport, finance and real estate sectors. This has also led to the growth of education and health sectors. The growth in employment in education and health services is linked to the large-scale expansion of private sector in school and higher education as also in health sector. The expansion of these sectors is a result, partly of the increased demand from NRMs for these services even at higher cost.

Tourism is another growth sector of Kerala which contributed to the expansion of service sectors particularly hotel, transport and finance sub sectors. Kerala is emerging as one of the important destinations for tourists coming to India.¹² Share of Kerala in the number of foreign tourists arriving in India has been growing steadily to reach 11.2 percent in 2008. The foreign exchange earnings from tourists coming to Kerala are estimated to be six percent of the total earnings received by the country. The flow of domestic tourists has also been increasing. The total revenue, both direct and indirect, generated from tourism is estimated at Rs. 13130 crores in 2008 (GoK 2009).

Section 3: Weaknesses of Kerala Economy

3.1 Unemployment

The chronic unemployment problem has been the bane of the state eclipsing all its other achievements. Though there was growth in state income from the late 1980s, it was largely a jobless growth as seen earlier. Unemployment rate in Kerala for rural areas is 15.8 percent against the national average of 2.5 per cent in 2004-05 (NSSO 2006). For the urban areas, the rate was 19.9 per cent against the national average of 5.3 per cent. The unemployment problem in Kerala is more for the educated¹³ than for the population as a whole. Unemployment rates for the educated in Kerala are the highest for both rural and urban areas among the major states. The unemployment rate for educated persons in rural areas of Kerala was 29.6 percent against the all India figure of 8.5 percent. The corresponding figures for urban Kerala and India were 29.6 percent and 8.2 percent. The

unemployment rate among educated women in the rural areas was 53.3 percent against the all India average of 23.1 percent. The problem was slightly more in the urban areas of Kerala (55.5 percent). The rate was less in the urban areas in India (19.9 percent). Educated female unemployment in rural areas of Kerala was the second highest among major states (after Orissa). Educated female unemployment in urban Kerala was the highest among these states. The problem of unemployment would have threatened to become socially explosive but for the large scale migration of Malayalees to other regions of the country and also to other countries particularly to the Arabian Gulf countries. The number of migrants to other states in India was estimated to be 8.7 lakhs in 2007. The emigrants to foreign countries numbered 18.48 lakhs during the same year (Rajan and Zachariah 2007). The number of people working abroad exceeded the number of people employed in the organized private and public sectors in Kerala as may be seen from the Table 5.

Table 5: Importance of Non-Resident Malayalees (NRMs) Remittances

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Total number of emigrants* (Lakhs)	18.38	Not Available			18.48
NRM Remittances (Rs. Crores)	16044	19284	16990	20299	24269
GSDP originating from Agriculture and Allied Services (Rs.Crores)**	12857	13665	14814	16266	17879
GSDP originating from Primary Sector (Rs.Crores)**	15821	16806	18098	20218	21974
GSDP originating from Manufacturing sector (Rs.Crores)**	7342	8186	9125	10199	11428
GSDP originating from Secondary Sector (Rs.Crores)**	18207	20737	23131	26132	29433
Gross State Domestic Product (Rs.Crores)**	86275	96012	107054	118998	132739
Employment in Public and Private Sector Establishments as at the end of the year (Lakhs)	12.11	12.04	11.4	11.02	11.11
Total value of exports from Kerala (Rs.Crores)	Not Available				10384

Note:* pertains to calendar year 2003 and 2007,** figures for 2005-06 are provisional estimates and figures for 2006-07 are quick estimates.

Source: Rajan and Zachariah 2007; George and Remya 2010

3.2 External Dependency

A major weakness (and potential strength) of Kerala economy is its extreme dependence on outside the state and outside the country, both for employment and for remittances. The non-resident remittances to Kerala (through authorized channels) in 2006-07 amounted to Rs. 24,269 crores. The importance of non-resident Malayalees in Kerala economy can be seen from table above. The NRM remittances accounted for 20 per cent of the total non-resident Indian (NRI) remittances from abroad to the country. The NRM remittances are equivalent to nearly one fifth of the state income. Any political or economic change in foreign countries particularly the gulf region can make Kerala economically vulnerable as it had happened during the economic meltdown in recent years and during the Iraq-Kuwait war in 1990. Even a change in exchange rate can affect Kerala economy in a major way (George and Remya 2010).

Extreme dependence on imports from the rest of India for its daily necessities including food materials is another weakness due to the tardy growth of its production sectors like agriculture and industry. Economy is extremely dependent also on national and international markets for its major cash crops like coffee, tea, rubber, spices. It also depends on external markets for its traditional industrial products like coir, cashew, handloom, handicrafts and of late sea foods. This dependence on external markets makes the state's economy extremely vulnerable to developments taking place elsewhere in the country and abroad. Trade agreements like those with the World Trade Organization and with other Asian countries (like the ASEAN and SAARC) also affect the state's economy. No doubt, they also offer opportunities.

3.3 Deteriorating Fiscal Position

Deteriorating fiscal position is another major weakness of the state economy (George 1999). The average Gross Fiscal Deficit of the state during 2005-08 was 3.3 per cent of Kerala's GDP as against 1.9 per cent for all states. The problem of deficit in Kerala is more in the revenue account. Revenue deficit alone amounted to 2.2 per cent of GDP as against -0.4 per cent for all states (RBI 2010). Both the size and the nature of the fiscal crisis in Kerala are related partly to the Kerala model of development with its budgetary

priorities in favour of social sectors. It is also on account of the pattern of growth of Kerala economy favouring largely the service sector. Under the Constitution of India, the power to tax many of the fast growing services like finance and communication is vested with the federal government and not with the state governments. The weak revenue position of the state has led to its borrowing on a large scale to meet even government's current consumption. The fiscal crisis has placed a limit to the development in the social sectors. Cracks are already visible in the large edifice of government's social service infrastructure like education, health care, social security and food security.

3.4 Second Generation Problems

It was seen earlier that many of Kerala's achievements are comparable to those of developed countries. But these successes have also brought in its wake some of the problems of the developed countries. Unlike these countries, the state does not have the financial ability or the economic strength to tackle them all by itself. The federal agencies had added to the financial debility of the state by denying it adequate funds as they are still preoccupied with the first generation problems in education, health care and social security in other parts of the country and to meet the country's international commitment to meet the Millennium Development Goals (MDGs). Kerala's unique 'second-generation problems' resulting from its very success in attaining higher levels of social development, therefore, receive scant attention from the federal agencies.

3.4.1 Ageing

The large graying population of the state has several implications in relation to health needs, service pension requirements of the government and social security system. The share of elderly in the age group 60 and above in the population of both Kerala and India showed an increasing trend during 1981-2001. The share of the elderly in the total population was always higher in Kerala than in the country. This share is increasing very fast in Kerala unlike in the country, where it is increasing only marginally. The number of elderly in Kerala stood at 33.35 lakhs in 2001 (GoI 2001). The projection of the old age population in Kerala shows that the share of old people in the population is expected to reach 6.6 million by 2021. The proportion of the old old (75+) will be 26 per cent of the elderly in the state by 2021 (Aliyar and Rajan 2004).

The changing demographic profile is also likely to increase the demand for expenditure on health services. The increasing proportion of the aged in the state's population is changing the disease profile (Panikar and Soman 1985). A new category of diseases comprising degenerative and neo-plastic diseases like hyper-tension, diabetics, cardiovascular diseases, neurological disorders and cancer have emerged in the state. These diseases of the old age call for higher investment in diagnostic equipment, hospitalization, treatment, recovery and rehabilitation. At a time when the expenditure requirements on health are rising, the state is finding it increasingly difficult to meet these requirements partly due to fiscal crisis. As a result, the quality of services in the government health services has been coming down. Consequently, there has been an increase in the demand for private medical care services offered mostly on commercial terms.

3.4.2 Changing Profile of Employment Seekers

Yet another second generation problem is the change in character of the unemployment in the state. Higher levels of education have changed the character of unemployment in the State to that of educated unemployed, as seen earlier. Eighty four per cent of the unemployed registered on the government's employment exchanges are matriculates and above. This makes most of the federal government schemes for employment creation, targeted mainly at the unskilled manual workers, inappropriate for the unemployed of the state.

3.4.3 Degradation of the Environment

The state is now confronted with major problems on the environmental front. Today, 'Kerala faces a major environmental crisis from severe deforestation in Western Ghat Mountains, leading to soil erosion there and water logging in low land areas. Polluted rivers and foreign hi-tech offshore fishing operations are reducing the fish catch' (Franke and Chasin 2000).

According to the Comprehensive Environmental Pollution Index (CEPI) for 88 industrial areas in the country, the index for the Greater Cochin Area is 75. It ranks 24 in terms of this index. It is declared as a 'critically polluted area' (GoI 2009b). The reasons for the

high degree of pollution of water, air and soil are many. As seen earlier, due to historic reasons, chemical industries are clustered in this area. They were attracted to this area due to the availability of fresh river water. The rivers were also used for effluent discharge. Many of the wood based industries including Rayon units and paper units had their backward linkages with the forest resources. They also used the river for effluent discharge. Coir, a major traditional industry of the state using traditional technology was dependent on water bodies for retting coconut husk. Excessive use of fertilizers, and pesticides including DDT and Endosulfan in agriculture contributed to the pollution of soil, water and air. The quality of government's management of environment is quite poor as may be seen from the pollution index noted earlier.

We had seen earlier that in per capita consumption expenditure, Kerala stood at the top among states. An effect of this high per capita consumption is the generation of massive solid and liquid waste. There has been a failure of governance, at every level, in waste management, both solid and liquid. In many places, the liquid waste is discharged to the water bodies. Unregulated tourism also has adversely affected the environment in Kerala's beaches, backwaters and the forests.

There has been over exploitation of natural resources. Mining of clay for bricks, a traditional industry of Kerala, expanded due to the construction boom in the state. Excessive mining of sand from the rivers to meet the growing demands from construction sector also led to the degradation of rivers and depletion of the soil and water resources of the state. There is also large scale excavation of hills for filling up paddy fields and shallow water bodies for the booming housing and real estate sectors. Encroachment of forests and wetlands including lakes has also been going on leading to deterioration of environment.

Notwithstanding the above adverse track record on the environmental front, Kerala scores well in the matter of emission of green house gases, paradoxically due to the state's failure to expand its production sectors like agriculture, animal husbandry and industry. For the same reason, the energy consumption per unit of output is also low. Besides, the state depends only marginally on thermal power for its energy production. As against the

low emission of Green House Gases, the state's carbon sequestration potential is quite high due to large coverage of area under forests as also tree crops like rubber, coffee and tea. Besides, Kerala has 4.32 million home gardens covering about 1.33 million hectares of land. It is found that these tropical home gardens, the multi species production system have a higher potential to sequester carbon than mono specific production systems (Kumar 2006). The state also scores high in its bio-diversity potential (George and Krishnakumar 2009)

Section 4: Potential for Growth

Kerala has the potential for a much faster economic growth as a number of factors are now turning favourable to its growth. The shifting from the fixed exchange rate system to the floating exchange rate system, though the floating is still being managed by the Reserve Bank of India, has turned out to be its advantage since 1991. The geographical position of Kerala far from the input and output markets which was a disadvantage when Indian economy was a closed economy following an import substitution development strategy. But the location of the state is turning to be an advantage for it, with the opening of the Indian economy. Kerala's geographical location close to the international shipping route has become a great advantage, especially now since two container terminals, one in Cochin (to be commissioned already) and the other in Vizhinjam near Thiruvananthapuram (the work is being initiated) are going to be located in the state's coast. Cochin today is the only place in India where South Africa Far East (SAFE) submarine optic fibre cables land. South East Asia - Middle East - Western Europe Cable network (SEA) is also landing at Cochin. Cochin is emerging as a gateway which now handles 70 per cent of India's data traffic. Cochin has a 15 GBPS VSNL International Gateway Exchange (www.infoparkkochi.com). The Kerala circle of BSNL has the second largest basic service network out of the 24 telecom circles in India (<http://www.bsnl.co.in>)

Kerala already has the physical, financial and communication infrastructure. In fact, it ranks first in the index of infrastructure among the states in India (GoI 2004). Kerala has the highest tele-density of 15.4 per 100 population (www.itmission.kerala.gov.in). It also

has relatively well developed social infrastructure for education and health care. All that is now required is investments to upgrade the quality and to modernize the services.

Another positive factor for Kerala today is that it enjoys comparatively more social stability and absence of communal and caste conflicts due to the cultural synthesis which dates back to its early history and the social reform movements in the last two centuries. The bad reputation of the state as a place of disturbed labour relations is now changing as strikes and lock outs which were quite frequent in Kerala in the 1960s and the 1970s have now come down considerably. There is much scope for value addition to its export of both agricultural and traditional industrial products of Kerala. The rich bio-diversity of state and the traditional knowledge regarding the many uses of Kerala's flora and fauna offers potential for development of biotechnology provided the research capacity in this area is enhanced considerably.

As noted earlier, Kerala economy had developed strong linkages with international markets historically. The large scale emigration of people had strengthened these linkages. With the opening up of Indian economy, it is expected that this state with its historic trading and cultural links with the outside world will be able to profit from the new opportunities. The non resident Malayalees had got opportunities for getting exposed to global markets, culture, modern technology and management skills. But this exposure is not yet leading to any significant transfer of such technology and management skills to the Kerala economy. Migration has also led to large scale inflow of funds to the state. But, instead of being invested in the state, they are being increasingly diverted to other states through financial intermediaries. Much of the migrants' remittances seem to be spent on conspicuous consumption in the absence of other investment outlets. The state has the great potential to convert the NRMs into its most important asset as was done by countries like China and Ireland.

If Kerala has to convert its above discussed advantages into opportunities, it has got to meet some pre-conditions. Firstly, it has to improve the quality of governance and speed up the government's decision making process. Secondly, a qualitative change is required in the attitude of the political parties, public, civil society groups and the media. Dreze

and Sen, great admirers of Kerala development themselves have pointed out the major short-comings of the state ‘The political economy of incentives is of crucial importance in translating the potential for economic expansion, implicit in human development, into the reality of actual achievement in the economic sphere’ (Dreze and Sen 1996). Again, ‘The political climate has also tended to encourage economic policies that are extremely hostile to the market mechanism, even in areas where this hostility and the excessive reliance on government regulation that goes with it- is quite counter productive’ (Dreze and Sen 1995). Further, they argue that ‘Kerala has suffered from what were until recently fairly anti-market policies, with deep suspicion of market-based economic expansion without control. So its human resources have not been as well used in spreading economic growth as they could have been with a more complementary economic strategy, which is now being attempted in the country’ (Sen 1999). The above shortcomings pointed out by Sen and Dreze may explain why Kerala’s social development failed to trigger off economic growth as had happened in most other countries (George 1998).

¹ Excavations are currently going on at Pattanam to collect archaeological evidence that would help to locate or identify an early historic urban settlement and the ancient Indo-Roman port of Muziris or Musiri on the Malabar Coast. The excavations so far indicate a vast ‘urban’ settlement followed by Roman contact in the early historic period. It appears that the site was continuously occupied at least from the 2nd century BC to the 10th century AD. The maritime contacts of this region during the early historic period seem to have been extensive as evidenced by the large number of Roman Sherds, Sassanian, Yemenite and other West Asian potteries. Retrieved <keralahistory.ac.in/researchprojects.htm> on 15-03-2010.

² The region, located at the tip of the Indian subcontinent was never a part of the powerful North Indian and South Indian empires. Except for occasional incursions from the neighbouring Tamil kingdoms, the region was left to lead a peaceful existence.

³ Used to be known as Thiruvithamkoor and Kochi in Malayalam.

⁴ According to some scholars, the name Keralam is derived from Kera , which means, coconut palm.

⁵ They included tea, rubber, cashew, tuber crops like tapioca and some varieties of plantains. Coffee was introduced by a Muslim saint from West Asia, first in Karnataka. In other words, most of the crops which sustain Kerala economy today were introduced from abroad. Tapioca ensured food security of Kerala till recently.

⁶ The share of expenditure on education in total government expenditure of Travancore increased from 5.1 percent in 1900-01 to 6.2 percent in 1941-42. The share of education in Cochin during 1939-40 was higher (18.5 percent). The share of medical and public health in the total expenditure of Travancore exceeded 4 percent during the period 1925-26 to 1944-45 (*Ibid*). The erstwhile Travancore-Cochin state spent a higher proportion of its budget on education in 1954-55 than what is now being spent by government of Kerala (Nair 1981).

⁷ All state income figures mentioned here refers to Net State Domestic Product (NSDP).

⁸ All the growth rates up to 2000-01 used in this paper are taken from Subrahmanian (2005).

⁹ Activity on which a person spent relatively longer time (ie. major time criterion) during the 365 days preceding the date of survey.

¹⁰ Kerala used to depend on Burma (Present Myanmar) and Siam (present Thailand) for import of rice, even before independence.

¹¹ Unregistered factories are relatively small ones employing less than ten workers using power and less than twenty workers not using power. Registered units are those employing more than the above number of workers.

¹² Kerala was selected by the National Geographic Traveler as one of the 50 destinations of a lifetime and one of the thirteen paradises in the world. An equable climate, serene beaches, tranquil stretches of backwaters; lush hill stations and exotic wildlife are the major attractions of this land. A unique advantage of Kerala is that most of the destinations here are just two to four hour drive from each other. Classical art forms, colourful festivals, unique cuisine are some of the cultural marvels that await travelers. Ayurveda, the ancient Indian system of medicine and Panchakarma, the rejuvenation therapy special to Kerala have also helped the state to gain a pan-global reputation as a top of the line destination (www.keralatourism.com).

¹³ Unemployment among those persons (of age 15 years or above) who attained an educational qualification of secondary and above including those who completed diploma/certificate courses.

References

Albin, Alice, 1990, 'Manufacturing Sector in Kerala: Comparative Study of its Growth and Structure', *Economic and Political Weekly*, Vol. XXV, No. 37, pp 2059-70.

Aliyar Sabu and Rajan Irudaya S, 2004, 'Demographic Change in Kerala in the 1990s and Beyond', *Kerala's Economic Development: Performance and Problems in the Post-Liberalisation Period*, pp 61-81, New Delhi, Sage Publications.

Central Statistical Organization,(Various issues), *National Accounts Statistics*, New Delhi.

EPW Research Foundation, 2009, *Domestic Product of States of India, 1960-61 to 2006-07: Second Updated Edition*, Mumbai.

Dreze Jean and Sen Amartya, 1995, *India: Economic Development and Social Opportunity*, Delhi, Oxford University Press.

Dreze Jean and Sen Amartya, 1996, *Indian Development: Selected Regional Perspectives*, New Delhi, Oxford University Press.

Franke, Richard W and Chasin, Barbara, 2000, 'Is the Kerala Model Sustainable', *Kerala: The Development Experience*, pp 16-39, London, Zed Books.

George K K and Krishnakumar K K, 2009, *Kerala's Development Experience: Its Implications for Finance Commissions*, Working Paper No.21, Cochin, Centre for Socio-Economic and Environmental Studies.

George K K and Remya S, 2010, 'Impact of Rupee Appreciation on Remittances', *Governance and Labour Migration: India Migration Report 2010*, pp 68-83, New Delhi, Routledge.

George K K, 1999 (Second Edition), *Limits to Kerala Model of Development*, Thiruvananthapuram, Centre for Development Studies.

George K K, 1998, 'Historical Roots of Kerala Model and its present Crisis', *Bulletin of Concerned Asian Scholars*, Vol. 30, No. 4, pp 35-52.

Government of India, 1953, *Report of the Rural Banking Enquiry Committee*, New Delhi, Ministry of Finance.

Government of India, 2001, Retrieved from

http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Social_and_cultural/Age_Groups.aspx, on March 1, 2010 Census of India.

Government of India, 2009a, *Per Capita Net State Domestic Product at Current Prices (as on 12-11-2009)*, New Delhi, Planning Commission.

Government of India 2009b, Central Pollution Control Board (CPCB) 2009, *Comprehensive Environmental Assessment of Industrial Clusters*, Ministry of Environment and Forests.

Government of Kerala, 2010, *Economic Review*, Thiruvananthapuram, State Planning Board.

Government of Kerala, 2009, *Economic Review*, Thiruvananthapuram, State Planning Board.

Issac Thomas and Tharakan Michael, 1986, *An Enquiry into the Historical Roots of Industrial Backwardness of Kerala – A Study of Travancore Region*, Working Paper No. 215, Thiruvananthapuram, Centre for Developments Studies.

Kannan, K P, 1990, 'Kerala Economy at the Cross Roads?' *Economic and Political Weekly*, Vol. 25, No. 35 & 36 pp 1951-1990.

Kerala Council for Historical Research, 2010, retrieved from www.keralahistory.ac.in. on March 20, 2010.

Kumar B M, 2006, 'Carbon Sequestration Potential of Tropical Home Gardens', *Tropical Home gardens: A Time-tested Example of Sustainable Agro-forestry*, Netherlands, Springer.

Mahadevan Raman, 1991, 'Industrial Entrepreneurship in Princely Travancore: 1930-47' *South Indian Economy: Agrarian Change, Industrial Structures and State Policy, 1914-1947*, pp 189-97, New Delhi, Oxford University Press.

Mukhopadhyay Swapna, 2007, 'The Enigma of Kerala Women: A Failed Promise of Literacy', New Delhi, Social Science Press.

Muranjan S K, 1952, *Modern Banking in India*, Bombay, Kamala Publishing House.

Nair Gopinathan P R, 1981, *Primary Education, Population Growth and Socio-economic Change*, New Delhi, Allied.

Nair, P.R.G, 1989. 'Universalisation of Primary Education in Kerala' in Panchmuki, P.R (ed), *Studies in Educational Reforms in India*, Vol.II, New Delhi, Himalaya Publishing House.

National Council of Applied Economic Research, 1967, *Estimates of State Income*, New Delhi.

National Sample Survey Organization, 1997, *Employment and Unemployment in India 1993-94*, 50th Round, July 1993–June 1994, Report No. 409, Government of India, New Delhi.

National Sample Survey Organization, 2001, *Employment and Unemployment in India 1999-2000*, 55th Round, July 1999–June 2000, Report No. 458, Government of India, New Delhi.

National Sample Survey Organization, 2006, *Employment and Unemployment in India*, 61st Round, July 2004– June 2005, Report No. 515, Part I, National Sample Survey Organization, New Delhi, Government of India.

Oomman M A, 1976, 'Rise and Growth of Banking in Kerala', *Social Scientist*, Vol. 5, No.3, pp 24-46.

Panikar P G K, Krishnan T N and Raj Krishna N, 1978, *Population Growth and Agricultural Development – A Case Study of Kerala*, Rome, Food and Agriculture Organization,

Panikar P G K and Soman C R., 1985, *Health Status of Kerala*, Thiruvananthapuram, Centre for Developments Studies.

Philip M P, 2006, 'Trends in Financial Intermediation by the Banking System in Kerala: An Analysis in the context of the Growth Trends in the States Economy', *Unpublished Phd Thesis*, Cochin, Department of Applied Economics, Cochin University of Science and Technology.

Raghaviah Jaiprakash, 1990, *Basel Mission Industries in Malabar and South Canara 1834-1914: A Study of its Economic and Social Impact*, New Delhi, GIAN Publishing House.

Rajan Irudaya S and Zachariah K C, 2007, *Migration, Remittances and Employment: Short-term Trends and Long-term Implications*, Working Paper No.395, Thiruvananthapuram, Centre for Development Studies.

Ramachandran V K (2010), 'On Kerala's Development Achievements' in Jean Dreze and Amartya Sen (eds), *Indian Development: Selected Regional Perspectives*, pp 205-356, New Delhi, Oxford University Press.

Reserve Bank of India, 2010, 'State Finances: A Study of Budgets of 2009-10', Mumbai.

Saradmoni K, 1994, 'Women, Kerala and Some Development Issues', *Economic and Political Weekly*, Vol. 9, pp 501-509.

Sarvekshana, 1990, *Fourth Quinquennial Survey on Employment and Unemployment NSS 43rd Round*, July 1987–June 1988, Special Number, September.

Sen Amartya, 1999, *Development as Freedom*, Delhi, Oxford University Press.

Singh Bright, 1944, 'Financial Development in Travancore: 1900-1940'. *Unpublished Phd Thesis*, Thiruvananthapuram, University of Travancore.

Subrahmanian K K, 2005, 'Growth Performance', *Kerala Economy: Trajectories, Challenges and Implications*, pp 25-48, Cochin, Directorate of Publication and Public Relations, Cochin University of Science and Technology.

Tharakan Michael, 2005, 'Evolution of Economy and Society in Kerala: A long Term Perspective', *Kerala Economy: Trajectories, Challenges and Implications*, pp 11-24, Cochin, Directorate of Publication and Public Relations, Cochin University of Science and Technology.

Thomas T T, 2004, *The Story of FACT Ltd: A Study in Public Sector*, New Delhi, Excel Books.

Thottathil P, 1988, 'The Internal Transfer of Income from Exporters to Importers within a Foreign Exchange Control Regime: An Indian Case', London, *Applied Economics*, Volume 20, Issue 9, pp 1211-22.

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