

Working Paper Series

510

KERALA 'MODEL' OF DEVELOPMENT REVISITED

**A SIXTY-YEAR ASSESSMENT
OF SUCCESSES AND
FAILURES**

K. P. KANNAN



Centre for
Development Studies
Thiruvananthapuram - 695011
Kerala, India

The Centre's Working Papers can be downloaded from the website (www.cds.edu).

Every Working Paper is subjected to an
external refereeing process before being published.

The views expressed in this paper are solely of the authors
and do not reflect the views of the Centre

Working Paper 510

**Kerala 'Model' of Development Revisited
A Sixty-Year Assessment of Successes and Failures**

K. P. Kannan

October 2022



CENTRE FOR DEVELOPMENT STUDIES

(Under the aegis of Govt. of Kerala & Indian Council of Social Science Research)

Thiruvananthapuram, Kerala, India

Acknowledgement

This paper is an extended version of my lecture delivered on 8 January 2021 as part of the Golden Jubilee Celebrations of the Centre for Development Studies, Thiruvananthapuram (also known as Trivandrum), Kerala, India. I am thankful to Professor Sunil Mani, Director of the CDS for his invitation to deliver this lecture. The comments received from a number of persons who attended the lecture helped me in elaborating my arguments. In the course of the preparation of this lecture, I have had periodic discussions and consultations with a number of friends and professional colleagues. I would like to make a special mention of G. Raveendran, K.T. Rammohan, John Kurien, M.K. Das and K.S. Hari. Research support from K.S. Hari and computational assistance from Rejith Paul are gratefully acknowledged.

An abridged version of this article will appear as a contribution to a forthcoming Special Issue of the *Indian Economic Journal* in honour of Professors Prabhat and Utsa Patnaik edited by Praveen Jha and Sudhanshu Bhushan.

The author is a former Director and currently Honorary Fellow, Centre for Development Studies, Thiruvananthapuram, Kerala, India.

Abstract

This paper is about revisiting the famed Kerala ‘Model’ of Development. It covers a period of six decades, from 1960 to 2020. The remarkable achievements of the State of Kerala in India in basic human development indicators despite a very low per capita income had attracted the attention of development economists and other social scientists interested in the development of poor economies. However, it was often referred to as a case of ‘high human development with low per capita income’. This paper traces the trajectory of high human development that ultimately resulted in high economic growth in terms of two phases of growth. It measures that the early demographic transition, that is a result of high human development, itself contributed to a high per capita income growth in the second phase. The sustaining of the high growth was also a direct result of human development through large scale emigration of adult males to the Gulf countries for employment resulting in a long-term trend in remittances to the Kerala economy. The role of favourable initial conditions and a vibrant public sphere has been highlighted to emphasize the role of public action in demanding the delivery of human development services from the sub-national state. In this otherwise positive scenario, the paper notes the highly skewed nature of the high growth process with a diminishing role for the commodity-producing sectors of agriculture and industry. It has adversely affected employment generation to the increasing working age population. Official measurement of unemployment has been argued as inadequate and in its place the concept of under-utilization of labour has been highlighted. The problem of high unemployment (those seeking work) and under-utilization of labour (both seeking and not seeking work) has been shown to be considerably higher for women than men. This has resulted in the under-utilization of the labour of a significant share of educated women in the working age population. This problem has been termed as a ‘spectacular failure’ on the part of the state. The failure is rooted in the inability of the state to manage public finance as well as public investments. Three examples of these ‘state failures’ are: (a) a declining revenue collection efficiency, (b) persisting loss of the public sector enterprises, and (c) waste of public resources due to time and cost overruns in public investments in basic infrastructure. The outbreak of Covid-19 pandemic in 2020 in the background of the massive floods of August 2018 is portrayed as the beginning of a new challenge for Kerala’s development trajectory.

Keywords: Kerala Model of Development, human development, public action, social economy, remittances, lop-sided growth, unemployment, labour under-utilization, state failure, time and cost overruns.

JEL Codes: O15, R11, F24, J6, H21, H41, H75.

Introduction

This paper is a revisit of the development experience of the State of Kerala in India, often referred to as Kerala Model of Development. Kerala, as it is constituted today, was formed in 1956 as part of the reorganization of the provinces of independent India. The paper examines the growth performance along with human development, employment and associated structural transformation. The results reconfirm Kerala's remarkable achievements in human and social development. While the overall growth performance has also kept pace with the national record, we find several areas of failure that are in sharp contrast to the successes in human development. The findings may be summarised as follows.

First, Kerala enjoyed a historical advantage in the form of favourable initial conditions in pursuing higher levels of human development that continue to be way ahead of the all-India scenario. As such we find a favourable historical path when the notion of public action emerged as a critical factor in its human development trajectory. This public action made possible by social reform, radical politics and the emergence of an active public sphere and a social economy helped create an effective political demand for human development.

Second, this process of human development did contribute to the growth process through a demographic transition that helped to reap a premium in per capita growth in income to the extent of one percent per annum compared to the national performance in per capita growth.

Third, during the First Phase (1960-61 to 1986-87) of this sixty-year trajectory, growth performance was unimpressive not only in comparison to the national average but bordering on stagnation when viewed in per capita terms. However, growth started picking up a few years after the acceleration in growth in the national economy. This was largely contributed by the increasing flow of remittances to the Kerala economy made possible by large scale migration of its working age population, mostly men, to work in the countries in West Asia called the Gulf countries. In that sense, the process of human development leading to the migration of educated people could be seen as contributing to the higher growth performance of the Kerala economy in the Second Phase (1987-88 to 2019-20) beginning from 1987.

Fourth, the heightened growth performance was largely led by the construction sector and the service sector. This led to a further lop-sidedness of the sectoral growth performance of the Kerala economy diminishing the sectoral contributions of the manufacturing and agricultural and allied sectors. Consequently, the Kerala economy witnessed a large-scale movement of workers away from the primary sector to the construction and service sectors.

Fifth, from an employment point of view this pattern of growth could not address the problem of unemployment especially that of the educated unemployed. While unemployment in the restricted sense of 'seeking work' was found to be declining for men, this was not the case for women. Unemployment among the younger generation was high and increasing. However, when unemployment is measured as those seeking and not seeking work (called labour underutilization, LU), the situation is a challenging one with increasing proportion of women in the category of out of work and education i.e., LU. The problem was acute among the younger generation. Such a high rate of underutilization of labour despite high human development and high economic growth along with an advanced stage in demographic transition is nothing short of a spectacular failure. The overall situation in the national economy is hardly conducive to the alleviation of this problem since the rate of labour underutilization at the national level is no different from that of Kerala.

Sixth, while seeking answers to this question we embarked on the performance of the state in creating economic opportunities through resource mobilization, management of public sector enterprises and avoiding waste of time and resources in implementation of public infrastructure projects. In all these, the performance of the State of Kerala has been a dismal one. These therefore constitute another set of spectacular failures.

Finally, we hypothesize that while public action played an active role in enhancing human development, such an experience was not evident in the case of governance especially in the management of public finance and public enterprises and projects. It is possible that the scope for public action and participation was limited since the benefits are collective unlike in human development where there is a convergence of public and private (individual) benefits as well as individual participation as in the case of education and health.

The Kerala Model and its Critiques

A word about the Kerala Model of Development (henceforth KMD). When the Centre for Development Studies was established in Thiruvananthapuram (also referred to as Trivandrum) in 1971, its first major study was called *Poverty, Unemployment and Development Policy: A case study of selected issues with reference to Kerala* that was commissioned by the United Nations Committee on Development Planning (henceforth CDS Study 1975). This study brought to the fore that Kerala, a provincial state in India, has been able to achieve within a little less than two decades of its formation in 1956 a critical minimum of human development and welfare to its people despite a very low per capita income by international standards. It then came to be known as Kerala Model of Development although the CDS Study 1975 did not use such a term. Many scholars especially those associated with the CDS don't consider Kerala's development experience as a 'model' although the term gets repeatedly used in both popular and academic discussions¹. I also do not subscribe to the view that there is a 'Kerala Model of Development' simply because there was no preconceived formal strategy specific to Kerala's developmental challenges as in the case of say, Indian Planning Models. At the most, one could say that Kerala's specific developmental trajectory evolved out of its social and political processes over a long period of time starting from even before the formation of the State of Kerala. I am therefore using the term KMD in the sense of Kerala's development experience keeping in mind that this nickname has become part of the vocabulary in popular dialogue as well as scholarly discussions.

Apart from the CDS Study 1975, the development experience of Kerala got much wider attention internationally through several writings of Amartya Sen and his collaborator Jean Dreze (see, e.g., Dreze and Sen 1991, Sen 1999, Dreze 2017). Sen's human capability approach to development and its advocacy by the UNDP through the propagation of the Human Development Index gelled well with the development experience of Kerala. Our own attempt here (as well as in earlier in studies) were influenced by this capability approach and the role of public action in it. However, our attempt has been to understand the linking of the high human development (other than per capita income dimension) with high growth resulting in a 'virtuous cycle of growth' (see, e.g., Kannan 2005 and KDHR 2006). In this revisit, we attempt to take it further to explain the high growth period as one emanating directly from high human development through its linkage with external employment but resulting in a lop-sided growth trajectory.

¹ K.N. Raj and his co-authors did not certainly use the term 'model' in the first study (CDS 1975). Amartya Sen explicitly stated that he does not think there is a Kerala Model; he preferred to call it Kerala Way to Development.

The KMD came under severe criticism from some scholars and quarters. An early criticism was from social anthropologist Joan Mencher (1980) on account of the continuing poverty and vulnerability of the labouring poor at the bottom of the Kerala society and economy; viz., the agricultural labourers the incidence of which were very high among the ex-untouchable community of Dalits². On the basis of her field-work based studies on the plight of agricultural labour households, she went to the extent of predicting that: “I do not see much hope for the poor of Kerala, unless and until they develop a new leadership from their own ranks” (Mencher 1980: 1802). Fortunately for the poor of Kerala, a large share of whom were from agricultural labour households till recently, this prediction did not come true; on the contrary, there has been a remarkable decline in household poverty right through the low growth as well as high growth periods as a result of active state intervention, a rising wage rate in agriculture and then a remittance-induced sectoral mobility of labour from agriculture to non-agricultural activities (see Kannan 1995; CDS 2006). Recent exercises on multidimensional poverty in Indian states marks Kerala’s achievements – i.e., percentage of households with multidimensional poverty - as the lowest and practically nil at less than one percent (same as Thailand and better than Sri Lanka) as against the national average of 27 percent³. Deprivations among the Dalits (SC) and Adivasi (ST) populations, who experience a high incidence of agricultural labourers, has also come down significantly although social inequality has increased suggesting a higher rate of reduction in deprivation among socially advantaged groups than the socially less advantaged (see Kannan 2016)⁴.

The CDS scholars were very much aware of Kerala’s poor record in economic growth as well as its slow economic transformation. It was perceived as a challenge of attaining higher levels of productivity and creation of employment through a process of transformative growth given the favourable conditions of demographic transition and human capital stock. Following the publication of the CDS Study 1975, several research studies were carried out on a whole range of economic sectors and activities such as agriculture with an emphasis on performance of crops, livestock, fisheries, labour intensive industries, modern industries and so on. An early study was on the cashew processing industry that employed the single largest number of factory workers in manufacturing with 95 percent being women from very poor households. That study not only brought to the fore the plight of the women factory workers but warned that their working conditions, including wages, were worse than that of agricultural labourers (Kannan 1980)⁵. It also highlighted that, despite low wages, the employers were seeking further reductions in wage cost by ‘defactorising’ production by shifting production to households through a ‘putting out’ system as well as by moving production to locations

² Joan Mencher’s work on the labouring poor, particularly that focuses on the conditions of work and life of agricultural labourers covered both the State of Kerala and its neighbour, the State of Tamil Nadu. Mencher collaborated with the CDS for her fieldwork-based studies in Kerala during the 1970s and 80s.

³ See OPHI (2020). Ten indicators were selected to measure the incidence and intensity of multidimensional poverty. These are nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing and assets. For details on the weights attached to these indicators and the methodology of calculation, see the abovementioned reference.

⁴ However social inequality as between Dalits and Adivasis on the one hand and others on the other have declined only in a few indicators (e.g., school education) and have increased in others. Such social disparity however is found to be lower than at the all-India level (Kannan 2016 unpublished paper).

⁵ This study was followed by a full-length book in the manner of a system study examining the problems and prospects of cashew development in India encompassing cultivation, processing, export, industrial performance and conditions of work (See Kannan 1983). A more detailed historical study connecting class, caste and gender dimensions of cashew workers in Kerala was later published by Anna Lindberg (2001).

in border areas of neighbouring states where the wages were lower than in Kerala. Studies on the coir processing industry focusing on the struggles for higher wages and better working conditions characterized it as one of “class struggle” given the political nature of mobilisation and organisation of coir workers in coir manufacturing industries (see, e.g., Isaac 1982). But political mobilization of the workers in both the organised and unorganised sectors were a generalized process with its own successes and failures where women found themselves in a subordinated category (Kannan 1988). However, the problems of technological change and the flight of capital and the resultant crisis in the industry were also later highlighted to argue for a technological-cum-organisational restructuring (Isaac, et. al. 1992). Even the small-scale industrial sector reported a lack of comparative advantage (Thampi 1990). Kannan and Pushpangadan study brought to the fore the stagnation in agriculture across crops and regions (1988 and 1990). Studies on the fisheries sector brought out the plight of fishers in Kerala’s coastal belt and labelled it as an ‘outlier to the KMD’ (Kurien 2000). In this otherwise dismal scenario, the livestock sector was one of the few sub-sectors with a record of growth and modernisation (Nair 1990). The net result of such a disappointing performance of the primary sector of the economy was seen in its low annual growth rate (0.84) compared to the all-India performance (2.2 per cent per annum) during the First Phase.

A study of organised manufacturing sector (Subrahmanian and Pillai 1987) revealed that a comparison of wages in relation to productivity between Kerala and other states did not support the high-wage cost hypothesis. Instead, the paper pointed out the weak industrial structure in Kerala in terms of low capital intensity, absence of inter-industry linkages and such other factors relating to industrial structure. However, it also flagged the perception of Kerala among prospective investors as an unfriendly state in terms of labour relations. In a more comprehensive study of the problems of regional industrialization focusing on Kerala, Subrahmanian (2003) did indeed flag the emerging high-wage cost scenario in Kerala along with the absence of policy consistency, bureaucratic delays and rent-seeking behaviour within the system. In comparative terms, profitability ratios were closer to Tamil Nadu but less than Karnataka⁶.

In contrast to this rather poor performance of the organised manufacturing sector, the construction sector was booming as it was directly related to the demand for new housing arising out of the increasing annual remittances to Kerala from its workers from the Gulf region in the Middle East. It also led to an increase in rural and urban wages of unskilled manual workers especially men. The linkage between the labour markets in agriculture and construction led to the characterisation of Kerala’s labour market as one of inter-related labour market with construction emerging as the wage setter (see Krishnan 1991).

Exploring further the reasons for the poor economic performance of Kerala, a number of studies were brought together in two Special Issues of the famed *Economic and Political Weekly* (Vol, 25, Nos. 36 and 37, 1990) under the title ‘Kerala Economy at the Crossroads’. The overall picture that

⁶ In a nuanced analysis and interpretation of the performance of organized manufacturing industries in Kerala in relation to neighbouring states of Tamil Nadu and Karnataka, Subrahmanian gave more emphasis to structural weaknesses than the regional problem of labour relations. Yet, he emphasized this problem as a ‘psychic cost’. To quote: “The shyness of private sector capital is mainly due to the restrictive – real or perceived – features of some region-specific practices, policies and institutions that make the industrial climate less investor-friendly. In particular, the investors’ perception of Kerala as a “labour problem” state with labour militancy, high wages, etc may not be based fully on empirical evidence or objective conditions. Yet the investors’ perception is there and has to be taken note of. And in fact, the high wages, obstructionist attitude, militancy in bargaining of the “organised” casual workers especially head-load workers (*attimari*) certainly raise psychic-cost to the entrepreneurs. The perception of Kerala as a labour problem state even if not supported by hard-core data, raises the risk-premium for industrial investment in the state” (Subrahmanian 2003: 217-18).

emerged out of these studies is that the economic performance was one of either stagnation or slow growth. There was no suggestion in these studies that the emphasis on human development was responsible for the dismal economic performance. Rather, it was the result of cheaper labour conditions in neighbouring states and the inability of the Kerala economy to compensate that by increasing labour productivity that warranted technological changes. However, the political obstacles to encourage technological change in most of the low productivity labour-intensive activities (both in agriculture and industry) emanating from strong trade unionisation of the workers – read as male workers - both in organised and unorganised sectors were highlighted in many studies (Kannan 1988 and 1998; Tharamangalam 1983; Isaac, et. al. 1992). Wages of agricultural workers, taken as a barometer for the lowest unskilled workers, were higher in Kerala in relation to not only its neighbouring states but most states in India and the gap seems to have widened in recent times (Jose 2017)⁷.

But some other growth-inducing factors were at work as a result of the steady increase in remittance money from abroad. As mentioned earlier, it led to a boom in land prices as well as a further increase in wages of casual labour by the pull of demand in the construction sector. With land and labour costs going up, profit expectations went down especially in relation to other states. And this led to an import of tradeable goods from other states while the demand for non-tradeables, mostly services (such as health, education, construction, financial intermediation and banking, trading, and so on) had to be met through internal supply. In fact, as we shall see later, both income and employment grew much faster in the service sector than in commodity producing sectors. It was this dichotomous nature of demand for goods and services – traded and non-traded – that was flagged in the earlier mentioned ‘Kerala Economy at the Crossroads’ volume⁸. A number of measures were recommended to overcome this situation, the onus of which was largely on the state as distinct from social actors.

The importance of the traded sector viz-a-viz the non-traded sector underlines the open-ended nature of the Kerala economy not only in terms of its inter-linkages with the rest of India but more crucially with the rest of the world. In specific terms the export orientation of a significant part of primary production as well as secondary production is a historical one, the service sector also got integrated with the six Gulf countries in West Asia since the oil price boom of 1971. This was by way of the Gulf economy emerging as a labour market for Kerala’s labour force and consequent private remittances of outside money into the Kerala economy. But it also created a ‘diaspora market’ for goods and services from Kerala to cater to the demands of nearly 2.3 million Keralaites in the Gulf countries.

These debates reverberated not only in further academic studies but also in the debates in the larger society. The low economic performance was getting political attention with unemployment as a central theme in election manifestoes. Right from the mid-1970s i.e., immediately after the publication of the CDS 1975 Study, Kerala’s emerging people’s science movement took upon the development of Kerala as an issue for wide public debate. While it recognised the advances in education and health, it focused its attention on the development of economic sectors especially agriculture as well as industry and energy. It advocated technologies appropriate to the context and later those that are environmentally sustainable. The main message of these campaigns was that people are the wealth of an economy and it is in the appropriate utilisation of their labour Kerala can

⁷ As per Jose’s calculation, average wages of male agricultural workers in Kerala were more than twice that of the all-India average between 2005 and 2016. For women, it was higher by 1.8 times.

⁸ See, especially, the introductory article by Kannan (1990).

hope to achieve real development⁹. These public debates ignited more academic studies within and outside the people's science movement. Subsequently, the public debate on Kerala's development got richer and stronger, in my view, with the entry of environmental as well as the women's movements. The socially marginalised communities – Dalits, Adivasis and fishers - also made their presence, despite being a small minority, through several struggles of varying magnitude. In a sense such a process of public debate imparted a richness and nuance that were not conspicuous in the party-political debate on development and their election manifestoes¹⁰. The political sphere was largely polarised as between the left and the right but in practical programmatic terms the division has narrowed down with a series of compromises on neoliberal national economic policies while retaining the welfare programmes as well as a measure of decentralised governance in development programmes. In formal terms there is a Left Democratic Front led by the bigger communist party – Communist Party of India (Marxist) or CPM – and a United Democratic Front led by the Indian National Congress. The smaller communist party called the Communist Party of India or CPI is with the LDF since 1977 and the Muslim League and Kerala Congress, two main regional parties, are with the UDF. However, community interest groups, local pride and aspirations, personality factor and the sectional interests within communities have given rise to a number of smaller parties that are split between the Left and Right coalitions from time to time depending on bargaining terms, sectional interests and political exigencies. Needless to say, such a fragmented party-political landscape is hardly conducive to the pursuit of long-term developmental goals cutting across sectional interests.

Both the political fronts were not mute spectators to this debate. But as political parties they took care to reiterate their positions notwithstanding the remarkable convergence on issues relating to large construction-oriented projects and their environmental impact. Both the fronts maintained that 'development' is more urgent and important than 'environment' which they relate to its protection. The ensuing tension between the regional state and society (civil society organisations and people's protests) has now become a continuing feature of Kerala's public sphere, much more so than in many other states.

Largely influenced by the emerging public debate on developmental issues, the main political parties leading the two political fronts started responding in one way or another. One was the issue of

⁹ Outside the sphere of the party-political debates including election manifestoes, the KSSP is perhaps the first voluntary organization that brought the agenda of 'development' into the public sphere for dissemination, debate and discussion. Various other organizations had by then been well entrenched in publicly demanding what they wanted from political parties and regimes. Examples are: farmers wanted subsidies on electricity, water and fertilizers and other forms of support for farming; trade unions wanted better wages, durable employment and better conditions of work; social communities and castes wanted affirmative action policies; students wanted travel concessions, free education and more opportunities for higher education; and so on. The KSSP's explicit campaign on Kerala's developmental issues that started from 1975 with the publication of a little book called *Keralathinte Sampath* (meaning 'Kerala's Wealth') has continued to this day with several pamphlets, booklets, books, and reports. Among the 1000-odd titles of book/report publications, I could count around 430 titles as directly addressing development issues. These are published in Malayalam, the language of Kerala, with a few titles published in English as well. The organization publishes three monthly magazines two of which are meant for children below the age of 16. The third one *Sastragathi* (meaning 'The Way of Science') carries articles on natural and physical sciences as well as articles on Kerala's development issues and challenges. Newspapers as well as popular magazines also carry discussions on development issues especially that attract a fair share of public criticism. However, reporting positive news on development issues especially innovative developmental initiatives and successful implementation of development projects are far and few, if not nil. For a recent write-up on KSSP see, Menon (2015).

¹⁰ This part of the emergence of an active public sphere in Kerala debating developmental issues from different vantage points and often leading to social tensions and conflicts, is yet to be chronicled and articulated in its historical importance.

decentralisation of governance and development interventions of the state; another one was the emerging tension between environment and development understood in a binary sense and a third one was the issue of social inclusion two of which started getting public attention viz., gender equality and the status of Dalits and Adivasis in the development process. However, it was the CPI(M), the bigger Communist Party leading the LDF that could successfully conduct four large conclaves called ‘international congresses’ on Kerala between 1994 and 2016 and put forward a new agenda for a ‘New Kerala’. The central focus was the decentralisation agenda for which the Government of India had already enacted a national legislation in the form of two amendments to the Constitution in December 1992 to create elected local governments for villages and towns. The other two issues continue to be fiercely contested and debated within Kerala. What is significant to note from the point of our revisit of the KMD is the emergence of decentralisation of governance and development interventions through the creation of a Panchayat Raj in which Kerala emerged as the front-runner. In this the Left Front led by the CPI(M) emerged as a powerful champion, despite internal differences. The Indian National Congress which leads the United Democratic Front could not show as much enthusiasm as the Left Front but could not also oppose it given the national level contribution of the party in giving legal berth to this much awaited third-tier of governance within the Indian Constitution. As we shall see later, the institutionalization of a decentralised governance structure in the Kerala context was made possible largely by the contribution of the decentralised public sphere and its offshoot of the development of a social economy in Kerala consisting of a dense associational voluntary sector and a non-profit sector such as cooperative institutions. It could be said that this is a direct consequence of the early and steady expansion in human and social development.

But the KMD as it was hitherto understood as one of ‘high human development with low economic growth’ attracted a vigorous debate in academic circles. The first salvo was from a scholar associated with the CDS, K. K. George (1993), in the form of a monograph titled *‘Limits to Kerala Model of Development’*. This gloomy forecast was entirely based on an analysis of the state government’s fiscal crisis that saw a decline in the share of plan (including capital) expenditure as well as a decline in the share of social sector (mainly health and education) expenditure compared to other states. The root cause was identified in the low growth of the Kerala economy¹¹.

¹¹ A number of scholars other than development economists, especially from western countries, have generally endorsed the Kerala development experience as an alternative to the neoliberal-led economic growth for poorer countries. Social anthropologists Richard Franke and Barbara Chasin, taking note of the developments in human development and a spectrum of welfare policies, privileges the class struggles of peasants and workers for the human development oriented and socially and spatially more equitable distribution of basic development outcomes (Frankie and Chasin 1999). In sharp contrast, social historian Robin Jeffrey brings out the role of women in the making of the Kerala ‘Model’ of Development with particular emphasis on the role of education (Jeffrey 1992). Sociologist (or Political scientist) Patrick Heller (2000) lauds the Kerala development experience for its political and economic mobilization of workers and peasants and their incorporation in the political decision-making system. He views the open confrontation of organised labour and capital in the initial stages giving way to a compromised negotiated process for the working of capitalism in a democratic setting. None of these studies, in my opinion, are mutually exclusive in their explanatory power. All of them recognizes the critical role of education including political education and the consequent path to a more even-handed human development in the sense of gaining both political, social and economic capabilities. But none of the studies addressed the linking of high human development with high aggregate growth and the continuing challenge of un- and under-employment especially among the educated population. That the high growth process was noted much later than its start in 1987 could be one of the reasons. Olle Tornquist, a political scientist, along with social historian P.K. Michael Tharakan wrote about Kerala as the ‘next left’ wherein the radical political movement is seen to be experimenting with democratisation (Tornquist and Tharakan 1996). These studies deserve to be discussed in detail within the developmental trajectory of Kerala set in a larger canvas of a political economy of development. I have therefore not subjected these studies here for comments. But the views of some of them form part of the debate that has been reviewed in subsequent paragraphs.

Following the studies and debates mentioned earlier, an international conference in New Delhi held in 1996 resulted in the publication of two volumes titled *Rethinking Development: Kerala's Development Experience* (see Oommen 1999). Although the conference covered a large number of themes and issues, the main objective was to examine the sustainability of the Kerala Model of Development. At least four authors directly addressed this issue. Three of them, Frankie and Chasin (1999), Kurien (1999) and Saradamoni (1999) while acknowledging the achievements of the human development dimension of the Kerala Model shared the view that the 'old' Model needs to be reconfigured to make way for a 'new' Model to achieve growth with industrialisation as well as institutionalising a participatory decentralised democracy with close attention to gender and social justice issues. But another author (Tharamangalam 1999) had a different take which he developed in another context as outlined below. What is common to all the authors was their characterization of Kerala as a low growth economy at a time when that had already become a bygone story.

Following the arguments of George and linking it to the larger political and social processes, Tharamangalam, a sociologist from Canada but of Kerala origin, initiated a debate in the *Bulletin of Concerned Asian Scholars* (Vol. 30, Nos. 1, 3 and 4) that led to a vigorous response from a number of scholars, both foreign and Indian. Tharamangalam's thesis was that the fiscal crisis led to a generalised economic crisis ultimately leading Kerala "not able to sustain its achievements and it is losing its lead in social development itself" (Tharamangalam 1998: 27). Citing the findings of studies carried out by CDS scholars on low growth of Kerala economy from mid-1970s to mid-1980s, Tharamangalam's argument took a force of its own on blaming societal values, norms and cultural factors for the failure of the Kerala economy to achieve a level of economic development comparable to "Southeast Asian countries whose investment in human development have led the way to rapid economic development" (ibid.: 33). A majority of the responses were sharply critical of Tharamangalam including his characterization of the political system, values and norms¹².

One of the major drawbacks of the thesis put forward by Tharamangalam was the absence of empirical data since the late 1980s when Kerala economy started picking up steam in its overall growth performance. Such empirical data as were cited were selective. An important omission was the highlighting of the turnaround in growth that I found in my study of labour and development in Kerala (Kannan 1998) that was liberally quoted on the low growth in an earlier period and the problems associated with a short-sighted trade unionist strategy. Thus, the irony of the debate on the KMD was that precisely at a time when these debates were taking place, the Kerala economy had started

¹² Those who were sharply critical were Govindan Parayil, Patrick Heller, and Richard Frankie. Much before this debate, there was a brief discussion in the *Monthly Review* (January 1991 and December 1991) based on an essay by Richard Frankie and Barbara Chasin that presented Kerala as a province where popular struggles led by communist parties were able to provide basic services to all people. It gave particular attention to the role of the bigger communist party known as the Communist Party of India (Marxist). Three discussants (Maria Helena Moreira Alves, Samir Amin, Prabhat Patnaik and Carlos M. Vilas, all leftist intellectuals) while acknowledging Kerala's achievements and the role played by the communist parties pointed to the limitations as well as advantages of being part of a larger country and its ability to accept assistance from capitalist countries. A young Marxist intellectual and a strong critique of the Communist Party of India (Marxist) in Kerala, dissented with the thesis of Frankie and Chasin and pointed to Kerala's long historical process of social development, its integration with the global markets under colonial conditions and the strong new democratic struggles of the marginalized, greens and women. He pointed out to what he called "political degeneration" of communist parties. Since this paper is not focused on the politics and political economy of development in Kerala, we are mentioning them only as instances of a wider interest in the development experience of Kerala.

growing that more or less coincided with the acceleration in the growth of the national economy¹³. It took a while to notice the impressive growth in the Kerala economy in the national context and then to place it in the larger context of the trajectory of the KMD¹⁴. The steady growth in remittances resulting in an increase in loanable funds in the banking system was noted. This made it necessary to have a time series data on annual remittances to the Kerala economy to understand its growth dynamics especially since the late 1980s arising out of its labour market integration with the Gulf economy. This was a time when the CDS had started work on international labour migration from Kerala – with special focus on the Gulf countries – by a team led by the renowned demographer and migration expert, K.C. Zachariah. While the household surveys could give enough data on the number of people, their social and spatial distribution as well as social and economic characteristics, it was not enough to construct an annual series of remittance data. A few scholars¹⁵, mostly from the CDS, worked independently covering specified but short periods. Finally, a long time-series of the annual remittances covering a period of 27 years – 1972 to 2000 – was estimated by this author (see Kannan and Hari 2000)¹⁶. This was later extended up to 2020 covering almost half a century (Kannan and Hari 2020). Such a long time series brought to the fore the critical importance of remittances in the macro economy of Kerala. Based on the data from this study another study was carried out to understand the role of remittances in triggering a growth process in the Kerala economy (Pushpangadan 2012). All these became useful background material when the CDS was approached by the State Government, supported and sponsored by the UNDP, to prepare a Human Development Report for Kerala that was published in 2006 (henceforth KHDR 2006)¹⁷.

The opportunity to prepare this HDR was deliberately used to revisit the CDS 1975 study not merely in terms of public intervention in ensuring a minimum standard of living but also study the resultant increase in human development and its role in triggering a growth process via the international migration and remittances given the absence of any significant domestic success in inducing industrialisation.

¹³ In my paper on the political economy of labour and development in Kerala (1998), I had presented the revival in growth for a third period (1988-89 to 1995-96) leaving behind a low growth period (1975-76 to 1987-88). The aggregate growth in the third period was 6.85 per annum as against 2.52 in the earlier second period. In Table 1 of the paper, I had also reported the sectoral growth rates that showed the leading role of the service sector but with an equally impressive secondary sector that were not further explored. To put the record straight it is important to quote the observation: “Interestingly, Kerala economy seems to have recovered from the slow growth since the late 1980s that marked the beginning of economic liberalisation process in the country. This is a significant development with an average annual growth rate of close to 7 per cent, which exceeds the national average. The tertiary sector continued to lead this enhanced growth but some recovery is discernible in both agriculture and manufacturing. However, the situation seems to offer little hope for the unemployed as employment growth is dismal and unemployment rates remain high. This seems to be a typical case of jobless growth” (Kannan 1998: L-67). It must however be mentioned that the main focus of the paper was on the nature of dilemmas facing Kerala on the relationship between labour and development and not on the trajectory of the KMD.

¹⁴ It was Ahluwalia’s study (2000) that brought the inter-state variations in growth performance which showed that Kerala had already emerged as one of the high-performing states that registered a growth rate closer to or higher than the national average.

¹⁵ See Gulati and Mody (1983), Isaac (1997), Saith (1992) and also Zachariah, et. al.

¹⁶ As part of a revisit of this study in terms of its impact on the macro economy of Kerala, a 47-year long time series estimate on annual remittances to Kerala was constructed that demonstrated its continuing crucial role in powering the Kerala economy.

¹⁷ See Centre for Development Studies (2006), *Human Development Report 2005: Kerala*, published by State Planning Board, Government of Kerala, Thiruvananthapuram. The CDS-KHDR 2005 was prepared by a team led by this author.

This report came out with the conclusion that Kerala has entered a new ‘virtuous’ phase of development: “human development and economic growth seem to have started reinforcing one another positively, in contrast to the earlier experience of ‘human development lop-sidedness’ (with weak economic growth)” (KHDR 2006: 2). It noted the impressive growth in all three sectors of the economy – primary, secondary and tertiary – and emphasized the main enabling conditions were demographic transition, education, emigration and certain economic reforms initiated at the national level since 1991¹⁸.

If the conclusions of the HDR 2005 are taken together, then one may reasonably claim that the evolutionary experience of Kerala’s pattern of development fits into a Human Development (HD)-led Economic Growth (EG) model that further leads to a higher HD which in turn feeds into a higher EG *a la* Ranis-Stewart-Ramirez (2000). Has this happened? Much of the latest data that the KHDR 2006 could use was up to the end of the twentieth century or just the first couple of years of the twenty-first century. While the resilience of the ‘Kerala Model’ was dissected and analysed in the KHDR 2006, it also warned that ‘success can carry its own seeds of failure’. In particular it not only pointed to the pressing and enduring problem of unemployment but also the growing gender ‘unfreedom’. We shall see later that these two problems have now emerged as the two sides of the same coin of gender unfreedom given the fact that the problem of educated unemployed is predominantly among the women.

Why Revisit the KMD at this juncture?

If the Kerala Model has moved away from its human development lop-sidedness to a virtuous one characterised by high HD and high EG, one may legitimately ask: why is there a need to revisit? There are two compelling reasons for me to undertake this revisit. First, it is now almost two decades since the last exercise was undertaken. And it is important to find out as to how Kerala has managed to sustain the ‘virtuous’ phase and, if so, how has it addressed its historically persistent problem of educated unemployment that was flagged specifically both in the CDS 1975 study as well as in the KDHR 2005 study. This opportunity is also being utilised to examine some crucial aspects of the emergent issues of gender unfreedom despite the impressive achievements of women in the realm of human development. The second reason is the need to re-examine the ‘virtuous cycle of growth’ from the point of its ability to close the sectoral imbalance and, if not, the reasons thereof. That has alerted us to the need to interrogate the performance of the state government in mobilizing public resources as well as delivery of economic goods that are crucial for the development of the lagging sectors of agriculture and industry. The third reason is to bring the story of KMD up to 2020 since the year is likely to emerge as a watermark in Kerala’s developmental journey along with the rest of the country due to the as yet unassessed impact of the world-wide Covid-19 pandemic. In addition, the massive floods of 2018 and unseasonal rains since then and their disastrous consequences on land and water resources has pushed the environmental dimension of development as an active agenda in public discourse.

Our revisit takes into account the entire period of the developmental trajectory since the formation of the State of Kerala in 1956. Based on availability of data, we have taken a long period of sixty years from 1960-61 to 2019-2020. Given the crucial importance of the developmental process in the larger Indian economy within which the Kerala economy is embedded, we have juxtaposed the results of our assessment of Kerala with that of all India.

¹⁸ The emergence of a virtuous cycle of growth and its possible causes as revealed in the KHDR 2006 was first published in two articles by Kannan 2005, later elaborated in 2007; and Chakrabarty 2005).

A broad theoretical framework

Given the considerable literature and subsequent debates and discussions on the ‘Kerala Model of Development, we are in a position to outline a broad theoretical framework within which this long-period assessment is undertaken.

To begin with Kerala is a regional economy within a large country with constitutionally determined division of powers. In the sphere of development, much of the power to garner resources lie with the central government; however, the regional governments also enjoy limited powers of taxation as well as mobilization of additional resources through debt and other means. From a development theory point of view, we need to recognize that the Kerala economy is a sub-system within a large national economy subject to such policy regimes as decided by the central government in matters of monetary policy, external debt, foreign exchange rate and foreign direct investment. Therefore, the national context of development is a crucial determinant. However, state-level economic performance has varied widely in India depending on initial conditions, state government’s own policies and initiatives in fostering the regional economy’s development (as in agriculture, industry as well as human development) and the regional politics and the nature of the public sphere. Thus, there is a strong case to subject a regional economy and society in a large country to an analysis of its development experience compared to the country as a whole.

Based on the economic growth trajectory, we have divided the six-decade old development experience of Kerala in two phases, more or less equally divided. The first phase has been characterized as one of low growth despite impressive progress in human development. The second phase witnessed an acceleration in growth along with further progress in human development.

In terms of development theory, the first phase may seem like the take off period in a Rostowian sense with low growth arising out of low savings rate and investment rate in material capital, if not in human capital. However, one should note that a favourable initial condition for Kerala is the relatively high human development compared to the Indian economy as a whole. Given the low but rising savings and investment in the Indian economy with limited role for foreign investment, Kerala could not have expected a higher than national average in growth during the first phase. But its higher human development and a critical institutional reform in the form of land reform and the efforts by the state government in expanding the public sector and public investment in infrastructure seem to have not paid off as expected. Here comes the role of institutions. While land reforms abolished the class of rent-seekers in agriculture, it was not accompanied by such technological and/or organizational changes to break it out of the low productivity syndrome. In fact, the stagnation in the primary sector has been mainly responsible for the low growth performance in the first phase. Institutional failures in introducing technological changes and timely completion of crucial infrastructural projects as in water control and power generation led to a lack of realization of investment into tangible output growth. The growth performance of the manufacturing sector was also lower than the national average. It was the service sector that kept pace with the national average in growth performance.

Apart from the possible limited savings and investment in both Kerala as well as the national economy, institutional factors perhaps played a crucial role in determining the differential performance as between Kerala and all-India. By 1960 wage labour in Kerala, including those in the unorganised/informal sector, emerged as a class with organised strength in trade unions with strong political links in radical politics. Though it helped raise wages in selected economic activities especially for the male workers, it had also opposed technological change of any kind until the 1990s

that seemed to cut down existing workforce. In both agriculture and manufacturing dealing with organised labour also became an issue given the power of disruption of sections of organised workers in the unorganised sector. Kerala came to be known as ‘an unfriendly place’ for prospective investors. This led to migration of both existing and new capital to neighbouring states. In pure economic terms, the profitability condition at a given level of technology and wages shifted in favour of the neighbouring states viz-a-viz Kerala.

Given the continuing demand for education and health care services backed by a strong civil society and a history of banking and financial sector arising out of the commercial cultivation of crops, export-orientation of both agricultural products and agro-processed manufactures, demand for services continued to grow. The fact that services are essentially in the category of non-traded sector where the rising costs could be passed on to the consumer is an important dimension that determined the direction of growth in the second phase.

Development theory would tell us that high human development is an indication of high human capital and that should work itself out in accelerating economic growth. Given the barriers to such a mechanism, the increasingly better educated adults without work or with low earnings seized the opportunity for international migration to the Gulf countries since the oil price boom in the early 1970s. But it reached a critical threshold in terms of size and share of domestic income only by the mid-1980s. In our analysis of the growth performance, we find 1987 as a turning point in Kerala’s take-off to a higher growth trajectory. With a history of export-orientation for its primary and secondary sector products, Kerala economy got further integrated into the global economy through its international labour migration. One could hypothesize that the centre of gravity of the Kerala economy shifted from the national context to the global context dictated by employment-related events in the oil-rich Gulf countries. The neoliberal economic policies introduced in the country by the central government in 1991 facilitated Kerala’s increasing linkage and dependence on the global economy but through the rich Gulf economies.

This story of high growth with the help of high human development in the second phase is mediated in a fundamental way by the steady and rising flow of remittance income into the household economy of Kerala. It raised per capita income as well as consumption and reached a level significantly higher than the national average. Its multiplier effect did not benefit the Kerala economy in breaking the low growth syndrome in the commodity producing sectors of agriculture and industry in a sustained manner because they were ‘traded’ commodities and could be purchased from the rest of India at competitive prices. But the multiplier effect seemed to have worked remarkably well in the non-traded service sector given the rising demand for education, health, finance and trading, transport and other services. A non-service sector that witnessed a sustained high growth is the construction sector given the demand for new houses arising out of the remittance income. That also led to the rise in demand for non-residential construction in tandem with the growth in the service sector.

Such a growth and development trajectory, while increasing the per capita income and further enhancing the human development standard, has led to a highly unbalanced economy in terms of sectoral contributions to growth. Kerala is now a largely service sector driven economy more than the national economy.

From a development theory point of view, high human development in the initial phase has indeed resulted in high economic growth albeit with a time lag. But given the institutional failures in Kerala this linkage between high HG and high EG is due to the private decisions of a sizable share of the male adult population to access relatively high-income employment opportunities abroad. A

Hirschmanian perspective of the success of unbalanced growth may be discernible here although it may not have been planned that way.

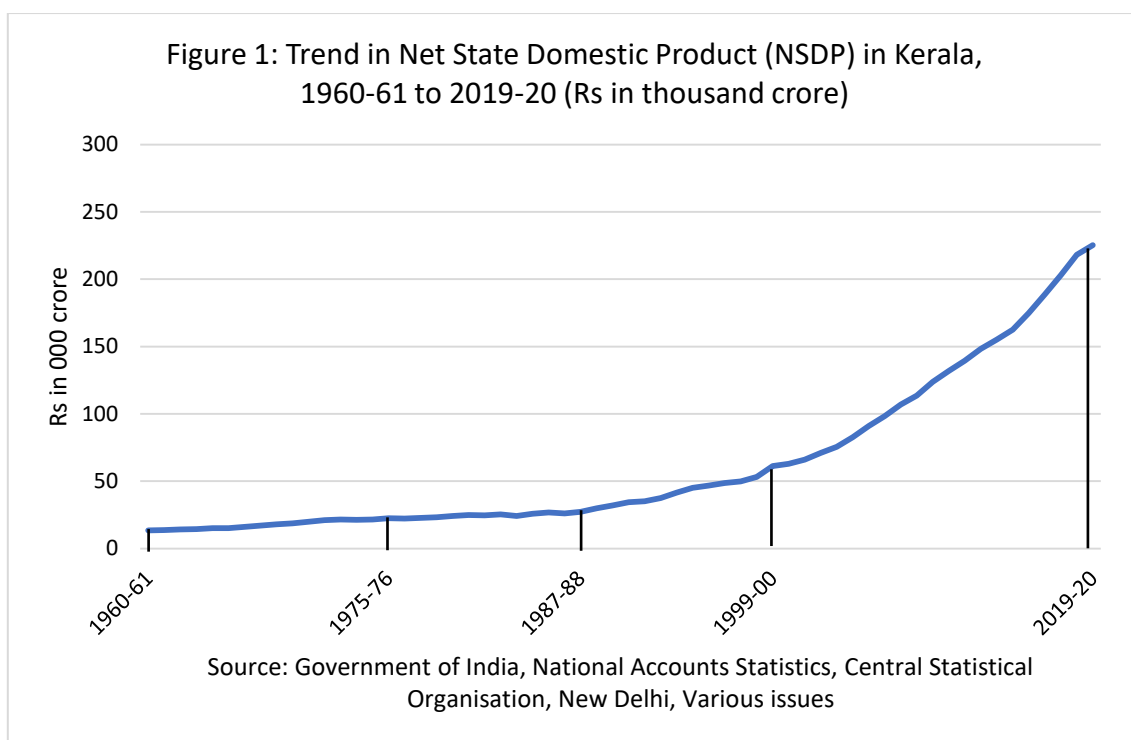
In an overall comparison, Kerala's growth performance is not radically different from the national economy. The crucial differences are in human development and early structural transformation. Both in all-India as well as in Kerala employment outcomes are not in tune with the high growth performance of the last three decades or more. The persistence of the informal sector and high rates of educated unemployment, not to speak of labour underutilization, pose difficult challenges. The characterization of 'jobless growth', along with the persistence of low-quality jobs (informal employment) is applicable to both the Kerala as well as all-India development experience.

While such basic input parameters of development as savings, investment and capital-output ratio matter, the role of state policy as well as institutions also play a crucial role in determining the outcomes. The failure of the regional state in public resource mobilization and its effective utilization has emerged as a glaring feature of the Kerala Model of Development where women, who have less mobility than men, have lost out heavily in terms of employment. Given the heightened awareness and struggles for greater gender equity, such an outcome has also raised equally crucial questions beyond women's economic participation to political representation. Such an unfavourable outcome for women despite their stellar contributions to higher educational attainments, early demographic transition, child care and survival and longevity should count as an irony of the KMD (see Tables A2 and A3). Over time the KMD is also challenging the ability of the regional state to incorporate environmental sustainability as a foundational framework for a meaningful development. All these call for more attention to a study of the political economy of development.

Periodisation of the developmental trajectory

While progress in human development in Kerala has been a secular one, the trajectory of economic growth has had several ups and downs. Based on the long-term trajectory of aggregate economic growth as per the official Net State Domestic Product (NSDP) statistics presented in Figure 1, we have divided the six decades into two phases; the First Phase being 1960-61 to 1986-87, and the Second Phase being 1987-88 to 2019-20. The First Phase representing a lop-sidedness with high human development and low economic growth and the Second Phase representing a virtuous one with high HD and high EG. However, we have divided each of these phases into two periods, based on the pace of growth, with a total of four periods (see Table 1). The moderate growth of the Kerala economy during Period 1 gave way to a deceleration bordering on stagnation during Period 2. The revival of growth since 1987-88 takes Kerala to a higher-level growth path on par with the national economy. In the subsequent Period 4, there is a marginal acceleration in growth. This periodisation is based on the growth in NSDP that reflects the internal growth dynamics of the Kerala economy. Later we have modified this series by adding the annual remittances and called it Modified State Income (henceforth MSI) (see Kannan and Hari 2002 and 2020). This MSI represents an important link of the Kerala economy with the global economy dictated largely by events in the six oil-rich Gulf countries in West Asia that employs Kerala's labour force equivalent to nearly a fifth of its domestic labour force.¹⁹

¹⁹ In 2018 people from households in Kerala classified as Non-Resident Keralites were found to be 21.22 lakhs of which 89 percent were located in the Gulf countries. It worked out to 10.3 percent of Kerala's working age population (15-59 years).



What we find is that the impact of initial investments in HD helped Kerala in triggering a steady process of economic growth but with a fairly long time-lag of close to three decades. In the subsequent three decades Kerala registered a growth rate close to the national average. Correspondingly the second period also witnessed an impressive progress in several of the crucial human development indicators for children, women and men (see Tables A2 and A3). In fact, the achievements are clearly much above the national average as well as South Asia and eminently comparable to the average in East and South Asian developing countries. Comparison in per capita income (in PPP dollars) is also commendable although some of the countries that have similar human development record as Kerala have already reached much higher levels of per capita income (see Table 3).

Table 1: Economic Growth and Human Development in Kerala compared to all India						
Period 1	Period 2	First Phase	Period 3	Period 4	Second Phase	Whole Period
1960-61/ 1974-75	1975-76/ 1986-87	1960-61/ 1986-87	1987-88/ 1998-99	1999-00/ 2019-20	1987-88/ 2019-20	1960-61/ 2019-20
14 years	11 years	26 years	11 years	20 years	32 years	59 years
High HD	High HD	High HD	High HD	High HD	High HD	High HD
Medium EG	Low EG	Low EG	High EG	EG > Period 3 but < India	High EG but < India	High EG but < India
High PCY growth	Negative growth in PCY	Low PCY growth	High PCY growth	High PCY growth	High PCY growth	PCY growth > India
Note: 'High' and 'Low' are used in relation to all-India trend. EG means Economic Growth, HD means Human Development, and PCY means Per Capita Income.						
Source: Growth classification based on Table 4. Low growth rate = 3 or below; Medium growth rate = >3 but <5; High growth rate = 5 and above. HD classification based on comparative performance of Indian States in terms of the values of HD Index. Kerala has kept in 1 st Rank among major Indian States since 1961. See, e.g., Government of India (2001) and Global Data Lab (globaldatalab.org/shdi/download/shdi/IND for data since 2001).						

Our analysis of the six decades of Kerala's development trajectory brings out the secular increase in several human development indicators. In some respects, the progress made has been faster than earlier periods belying the hypothesis of a 'limit to Kerala Model of Development'. Economic growth picked up from 1987 onwards has also showed an acceleration in recent times (Period 4). In several respects of human development, the gap between Kerala and all India has increased.

The importance of initial conditions

The CDS 1975 study had indeed highlighted some of the historically favourable factors in Kerala's ability to pursue a pattern of development that privileged distributional issues for reducing poverty and enhancing human development over growth per se issues. Two notable realms of initial favourable conditions that contributed to the characterisation of Kerala Model of Development were public policies on health and education. But studies have shown that these public policies were not autonomous decisions of ruling regimes but rather the pressures generated from the society, especially those deprived classes and segments, for a life of dignity (see, e.g., Nair 1981, Kabir 1996). In that sense one may characterise it as public action broadly understood. However, the dynamic element that resulted in favourable public action of a decisive kind after the formation of the State of Kerala was the creation of what we have earlier called 'effective political demand' i.e., demands backed up by collective and organised power (see Kannan and Pillai 2005). In that sense, the historical path that emerged during the late nineteenth century and expanded continuously through various public demands seems to have exerted a powerful influence in Kerala's developmental journey since 1956 by privileging human and social development over expanding the directly productive activities.

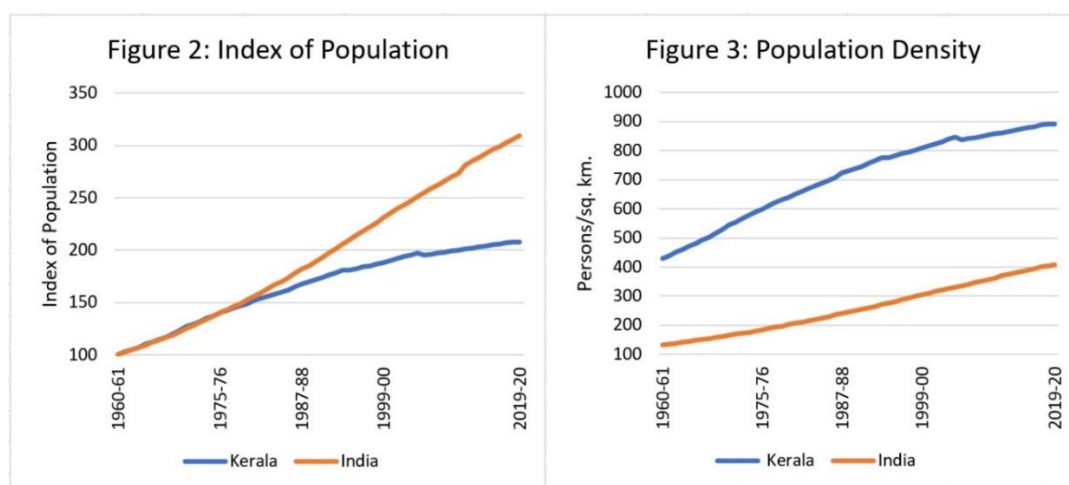
This notion of historical path is often characterised as historical path dependency in economic development literature to emphasize the influence of the past over the present (see Liebowitz and Margolis 2000 for a survey). In most cases it is used in a negative sense as a barrier to change as in the case of technology, location-specific industrialization and so on. We would however like to use this notion of historical path dependency in a neutral sense that could result in either a positive outcome or a less positive or even negative one. In the case of Kerala's long-term development, the historical path created since the late nineteenth century took a powerful turn from the hitherto feudal social and economic systems and induced the development of a social consciousness for greater dignity and rights made possible by the freedom movement that also gave birth to a radical political movement for human emancipation. Therefore, the initial conditions that the new State of Kerala found itself as a single political-cum-administrative unit within the larger constitutional democracy of India within a federal-type governance set up was favourable to the expansion and strengthening of the human development agenda of the Kerala society and for public measures to reduce absolute poverty.

However, the initial conditions arising out of a new historical path was not a favourable one for the development of the directly productive sectors of the Kerala economy that could perhaps explain its later stagnation or slow development and consequent lack of employment creation. We shall deal with this later.

The favourable initial conditions were mostly in the realm of education, health and consequently on demographic outcomes. It also led to an expansion, through public action, to the realm of what we later call the 'social economy' as well as cultural realm that is an extension of the realm of human development.

The unfavourable as well as the not-so-favourable initial conditions are partly structural and institutional. The agroclimatic conditions were more suitable for cash crops which had a steady demand resulted in a limited land availability for food crops. However, the absence of any major drought or famine also resulted in a population growth that saw Kerala as the state with the highest density of population resulting in a low land-man ratio, high incidence of landless labour in a context of highly unequal distribution of assets and a hierarchical caste system resulting in widespread poverty, low level of industrialization and so on. As if to offset such crucial barriers we also find a somewhat expanded service sector as in the case of financial intermediaries²⁰ – banking density – and the existence of cooperative organisations mostly in service provisioning. A powerful outcome of these unfavourable initial conditions is the high incidence of unemployment.

The favourable initial conditions in human and social development and not-so-favourable initial conditions in directly productive activities should also take into account the not-so-favourable condition of population density. While the human development process corrected this disadvantage later it took a fairly long time and only by the mid-seventies that Kerala's population growth started declining reaching rates that are below that of all India in subsequent periods. By 2011 Kerala has almost stabilized its population around 34-35 million and one should not be surprised by a negative growth rate in population in the next Census (hopefully in 2023) given the continuing decline in the Total Fertility Rate. Despite this achievement, Kerala continues to be a state with one of the highest population densities in India – from 3.25 times in 1960 to 2.19 times in 2019-20 that, in our view, continues to be a major constraint in meeting several developmental demands.



Source: Government of India, National Accounts Statistics, Central Statistical Organisation, New Delhi, Various issues

²⁰ Kerala – especially its Travancore and Cochin regions - has a record of high banking density even before independence. See, e.g., Oommen (1976).

In sum, what we would like to emphasize is that, firstly, the unified State of Kerala enjoyed an initial advantage in human development that was the result of a historical path created since the last quarter of the nineteenth century.

Secondly, this historical path was further strengthened through public action encompassing almost all social classes in the society including those who were economically poorer as well as socially disadvantaged in relation to the economic better off upper segments of the society. Since the late 1930s the various forms of public action – social reform movements, the radical political movement and the subsequent mobilization and organisation of the labouring poor, the emergence of various movements and organisations for social transformation – created an ‘effective political demand’ that continues to exert a powerful influence in the society till this day (Kannan and Pillai 2004).

Thirdly, despite the fiscal limitations and a low growth regime that got into a crisis during the First Phase, social and human development agenda continued to progress as a result of the emergence of a reasonably strong ‘social economy’ in the form of institutions based on non-profit objectives. This process of continuing social and human development got a further boost when the impact of the remittances began to show up as heightened demand for education, health as well as cultural products that was met through the market process by enhanced private investment. An example of this is the progress made in educational achievements especially for women in Kerala (see Table 2).

Fourthly, Kerala’s record is not only better than other major states but is also comparable to the south Asian and east and south east Asian average and some of its important constituent countries. In fact, compared to its income level, Kerala’s performance is well above some of the Asian countries with a higher level of achievement in income (see Table 3).

Table 2: Percentage of Working Age Population (WAP) with educational levels Secondary and above and Graduate and above, Kerala and India									
Gender	Year	WAP (15-59 years)				Younger Age (20-39 years)			
		Secondary & above		Graduate & above		Secondary & above		Graduate & above	
		India	Kerala	India	Kerala	India	Kerala	India	Kerala
Men	1983	16.3	18.5	3.8	2.9	20.0	19.7	5.5	4.0
	2019-20	47.9	60.8	14.6	14.8*	54.9	75.7	20.8	24.4*
Women	1983	6.6	15.4	1.4	2.3	8.0	16.4	2.3	3.7
	2019-20	37.1	61.2	11.8	19.8	44.1	78.9	18.1	34.7
Note: * The much lower percentage of younger men in Kerala in the graduate and above group compared to their female counterparts is largely due to the disproportionate emigration of young higher educated men to the rest of the country as well as to the Gulf countries for employment. Source: Calculated from unit level data from the 38 th NSS Round for 1983 and from PLFS for 2019-20.									

Table 3: Kerala's Human Development Record Compared with selected Asian countries							
HDI Rank	Country	Annual growth in HDI	HDI Value	Life Expectancy at Birth	Mean years of schooling*	GNI per capita (PPP\$)	GNI/ capita rank minus HDI rank
		1990-2017	2017	2017	2017	2011	2017
57	Malaysia	0.72	0.802	75.5	10.2	26,107	-11
58	Kerala	0.64	0.779	75.3	9.3	11,153	-19
76	Sri Lanka	0.69	0.770	75.5	10.9	11,326	19
83	Thailand	0.66	0.755	75.5	7.6	15,516	-7
86	China	0.62	0.752	76.4	7.8	15,270	-9
113	Philippines	0.64	0.699	69.2	9.3	9,154	-7
116	Indonesia	0.61	0.694	69.4	8.0	10,846	-19
116	Vietnam	0.58	0.694	76.5	8.0	5,859	14
130	India	0.52	0.640	68.8	6.4	6,353	-5
136	Bangladesh	0.49	0.608	72.8	5.8	3,677	9
148	Myanmar	0.46	0.578	66.7	4.9	5,567	-15
149	Nepal	0.47	0.574	70.6	4.9	2,471	12
150	Pakistan	0.47	0.562	66.6	5.2	5,311	-14
	East A& P	0.62	0.733	74.7	7.9	13,688	
	South Asia	0.53	0.638	69.3	6.4	6,473	

Note: East A&P means East Asia and Pacific. *For those 25 years and above.
Source: All data except for Kerala from UNDP (2018), *Human Development Indices and Indicators: 2018 Statistical Update*, New York. For India the value for life expectancy at birth is 69.4 as per Registrar General of Census Operations for 2014-18. For Kerala, the HDI value is taken from: Sub-national HDI – Area Data Base – Global Data Lab) Downloaded. Mean years of schooling computed from PLFS unit level data for 2017-18. GNI for Kerala represents Net State Domestic Product.

High growth in HD and the delayed High EG

From the point of the emergence of a virtuous cycle of growth led by high HD, the results presented in Table 4 is of crucial importance. First and foremost, the poor aggregate growth performance of Kerala during the First Phase gave way to a high performance during the Second Phase. The Second Phase trend growth has been two-and-a-half times that of the First Phase. In comparison the national growth performance was much better than Kerala – higher by 26 percent in the First Phase and but only 9 percent in the second phase. It is during this Second Phase that Kerala reduced its gap in growth performance with that of the national economy. For the 60 year-period as a whole the national aggregate growth performance was still higher than that of Kerala by a margin of 22 percent.

However, the story gets changed when the per capita growth in income is examined which is more appropriate because it neutralises the population growth rate. Kerala's per capita income growth was only two-fifth of all-India during the First Phase but gets reversed during the Second Phase due, obviously, to the demographic transition that was in the making during the First Phase²¹. However, for the whole period of six decades the per capita trend growth in income in Kerala was almost close to all-India but still short by a small margin. There is no doubt that despite a lower aggregate growth even in the Second Phase, Kerala managed to maintain a marginally higher per capita growth due to

²¹ Kerala attained a Total Fertility Ratio of 2 by 1990 compared to the all-India ratio of 4. See Zachariah, et.al. (1994).

its early demographic transition. In that sense, the demographic transition's contribution to Kerala's economic growth works out to one percentage point during the Second Phase. This is derived by the difference between the actual per capita growth and a per capita growth assuming a population growth as that of all-India. We call this Demographic Dividend-1 (DD-1) and the figures based on MSI are called DD-2.

The results based on MSI data show that the demographic dividend DD-2 is double that of DD-1 during the First Phase and in excess of 0.2 percentage point for the Second Phase at 1.2 percent per annum. For the sixty-year period DD-2 is also higher by 0.2 percentage points higher than that of DD-1 at 0.9 percent per annum.

Table 4*: Annual growth rate in NSDP (at 1999-00 prices) for Kerala and All India							
Particulars	First Phase (FP)			Second Phase (SP)			Whole Period
	P1	P2	FP	P3	P4	SP	
1. Kerala Economy (NSDP)	3.9	1.5	2.7	6.0	6.8	6.7	4.8
2. Kerala Economy (MSI)	3.9	1.9	2.8	6.2	6.9	6.8	4.8
3. Indian Economy	3.0	3.9	3.4	5.5	7.6	7.3	5.9
4. Population growth (K)	2.3	1.5	1.9	0.9	0.5	0.7	1.2
5. Population growth (I)	2.3	2.2	2.2	2.0	1.5	1.7	1.9
6. Per Capita growth (K)(NSDP)	1.6	0.0	0.8	5.1	6.3	6.0	3.6
7. Per Capita growth (K) (MSI)	1.2	0.7	1.1	6.2	5.8	6.2	3.8
8. Per Capita growth (I)	0.7	1.7	1.2	3.5	6.1	5.6	4.0
9. PC growth (K) assuming IPG	1.6	-0.7	0.5	4.0	5.3	5.0	2.9
10. Demographic Dividend-1 of Kerala (6 – 9)	0.0	-0.7	0.3	1.1	1.0	1.0	0.7
11. Demographic Dividend-2 of Kerala (7 – 9)	-0.4	0.0	0.6	2.2	0.5	1.2	0.9
Note: * Kinked exponential growth rates were calculated to reflect the trend in growth performance. Per cap growth = total economy growth minus population growth. P1, P2, P3, and P4 represent the four periods. FP and SP stand for first and second phase respectively. IPG means India's population growth. K and I stand for Kerala and India.							
Source: Government of India, <i>National Accounts Statistics</i> , Central Statistics Organization, Various issues.							

The conclusion that we draw from this exercise is that the demographic transition in Kerala helped it to achieve an additional growth rate of 0.7 percent per annum for a period of six decades. But a more accurate representation would be the difference between the First and Second Phases. If the contribution of demographic transition in the First Phase was 0.3 per cent per annum it jumped to 1.0 to 1.2 percent for the Second Phase. Given the fact that the demographic transition was an outcome of early policies and investment in human development this quantification could be reckoned as the direct contribution of human development to economic growth in a relative sense i.e., in comparison with the all-India situation.

High HD and High EG but a Lop-sided Growth Performance

A sector-wise examination of the growth performance reveals (see Table 5) a very poor performance of the primary sector that employed a majority of workers till the end of Period 3 (1999-00)²². The long-term growth of this sector of agriculture and related activities has been less than one percent per annum that was only one-third of the growth rate for all-India. The performance of the secondary sector was not a disappointing one even in the First Phase in comparison to all-India and its performance in the Second Phase almost matched that of all-India with an impressive trend growth rate. Of course, the secondary sector consists of manufacturing as well as construction and it was the latter that was responsible for the dynamism especially in the Second Phase. For the whole period of 60 years, Kerala's construction sector growth rate was one-and-a-half times higher than the all-India average whereas manufacturing sector growth rate was lower by almost one-third (see Table A1). The overall secondary and service sector growth for the whole period in Kerala is however only marginally lower than that of all India. However, it increased by a 0.3 percent point when remittances are included. As in the case of all-India, it was the service sector that led the overall impressive growth performance. Even the low growth performance in the First Phase was supported by relatively higher growth in the service sector. We have added the annual remittances to the service sector (shown with a star) for Kerala and it shows a higher long term trend growth compared to all India for the Second Phase. To the extent that remittances are driven by emigration that in turn is an outcome of initial high human development, the contribution of remittances to growth has largely taken place through the service sector in Kerala that has now considerably expanded its share in both state income and employment.

The remittance factor in Kerala economy may be summarised as given in Table 5. During Period 1 remittance in terms of its equivalence to the total state income (NSDP) was negligible, taken totally or by sectoral incomes. But during Period 2 it reached almost equivalent to 10 percent of the state income but it could not even maintain the growth performance of the economy during Period 1 due to negative growth in agriculture and fishing and transport and a significant negative growth in electricity, gas and water supply along with very low growth in manufacturing (see Table A1). However, Period 3 coincided with the introduction of neoliberal economic reforms which immediately benefitted Kerala through a windfall effect due to a change over from fixed to flexible (managed float) foreign exchange rate. It also witnessed increased out-migration resulting in higher remittance that was equivalent to almost one-fifth of the state income. Though largely limited to the non-traded sector, it also worked through a multiplier effect in the Kerala economy raising the overall growth rate that exceeded the national rate. Remittance continued to increase but its equivalence in state income declined marginally which is due to the higher rate of growth of the NSDP compared to the annual remittances. By Period 4 remittances were equivalent to one-and-a-half times the income generated in the primary sector and close to 78 percent of the secondary sector. When the annual remittances were added to the state income (MSI), Kerala crossed the average national per capita income ten years earlier than when only NSDP is considered (see Figure 4).

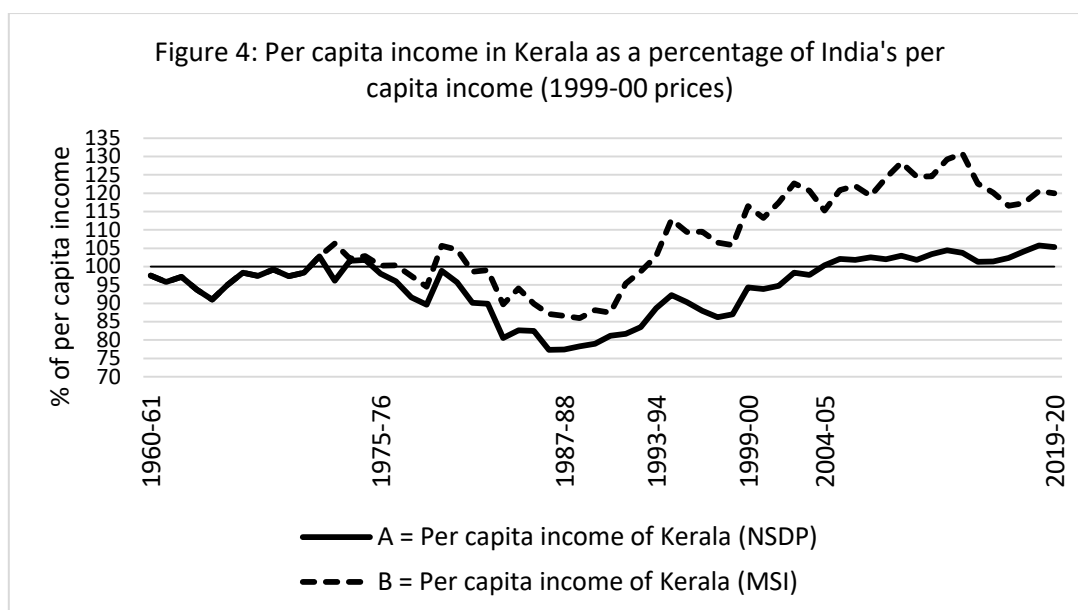
Remittances that constitute income to the household economy also dwarfed the government revenue as well as its total expenditure. It acquired some significance by Period 2 but in the subsequent two periods exceeded total government revenue by 25 to 34 percent and marginally higher than the total government expenditure.

²² This poor growth performance of the primary sector, especially agriculture, has a long record (see, e.g., Kannan and Pushpangadan 1988 and 1990), although the value-based land productivity levels are high comparable to Punjab and Haryana due to the cultivation of a variety of high-value cash crops (see Kannan 2010).

Table 5: The importance of remittance in the Kerala economy: Period-wise averages of remittance expressed in percentage equivalence to sectoral output and public finance categories (in current prices)						
Sl No	Remittance: Its percentage equivalence in	Period 1	Period 2	Period 3	Period 4	Whole Period
	Comparison with total and sectoral output					
	Total NSDP	0.27	9.53	19.73	17.27	17.28
	NSDP in Primary Sector	0.54	24.62	64.65	148.26	134.90
	NSDP in Secondary Sector	1.70	41.63	90.14	77.98	78.12
	NSDP in Services Sector	0.83	24.85	43.76	30.01	30.45
	Comparison with public finance					
1	Total Own Revenue	3.30	76.96	177.76	188.06	185.98
2	Total Central Govt transfers	5.75	154.05	408.51	468.09	459.28
3	Total Revenue (1+2)	2.10	51.32	123.86	134.16	132.38
4	Total Expenditure	1.79	43.71	100.19	103.26	102.30
Note: Figures presented are period-wise averages. Source: Computed from remittance data from Kannan and Hari (2020); NSDP data from Government of India, National Accounts Statistics, Various issues; and public finance data from Government of Kerala, <i>Budget in Brief</i> , Various issues.						

When the sectoral growth rates show such a wide disparity (see Table 6) it also indicates that the high growth sectors are increasing their share in the total income. This in turn would indicate which sector is leading the overall growth in the economy. This sectoral contribution to growth (see Table 7) shows the steady emergence of the service sector as the leading sector in both the Kerala as well as Indian economies. What is significant to note is the faster growth in the share of the service sector in Kerala; from contributing 42 percent of the overall growth in Period 1 to 78 percent in Period 4. To begin with the contribution of the service sector to growth in the Indian economy in Period 1 was higher (51 percent) than Kerala (42 percent) that got changed to 65 and 78 percent respectively in Period 4. That the contribution of the service sector in both the national economy of India and the regional economy of Kerala was higher than the two material producing sectors is an interesting contemporary historical datum that needs to be kept in mind.

The growth performance of Kerala and all India in terms of a detailed (15-sector) format presented in Table A1 (see Appendix) show that the sub-sectors in the service economy leading the overall high growth performance. Construction and Mining & Quarrying are the only two sub-sectors in the non-service sector with high growth especially in Kerala. By arranging the growth performance in a descending order for Kerala one gets an idea of the relative importance of the sub-sectors in the Kerala as well as all India economies.



Sector	Region	P1	P2	FP	P3	P4	SP	WP
Primary	Kerala	2.91	-0.98	0.84	4.14	-0.77	0.21	0.98
	India	1.94	2.43	2.28	3.53	3.03	2.95	2.81
Secondary	Kerala	4.72	4.95	4.94	4.01	6.83	6.16	5.33
	India	4.02	4.01	3.95	5.76	7.15	6.55	5.44
Tertiary	Kerala*	5.07	2.32	4.56	8.47	8.09	7.85	6.6
	India	4.16	5.55	4.54	6.82	8.24	7.84	6.53
All Sectors	Kerala	3.90	1.85	2.75	6.18	6.92	6.80	4.80
	India	3.03	3.87	3.41	5.53	7.62	7.25	5.49

Note: P1 to P4 refer to Periods. Period years as shown in Table 3. FP and SP stand for First and Second Phases. WP stands for Whole Period. *Denotes that the entire international remittance amount is treated as part of tertiary sector income.

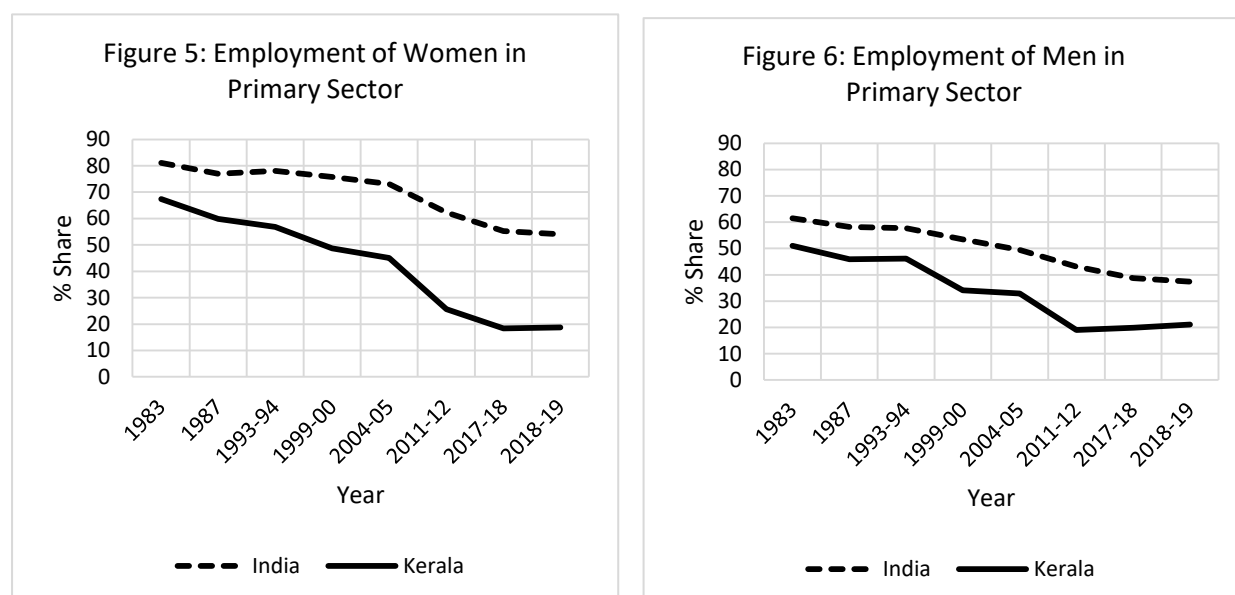
Though the human development trajectory of Kerala's development seems to have a historical path dependency via education and health care and the importance of trade, commerce and banking arising out of the export-orientation of commercial crops, the service sector was not a dominant sector in Kerala's economy until the mid-eighties. But its steady rise powered by remittances and the resultant expansion of the non-traded sector (construction, banking and finance, trade, transport, education and health) was such that it became the major sector by the end of the twentieth century coinciding with the beginning of our Period 4 in the Second Phase (51 and 57 percent in 1998-99 and 1999-00 respectively). Within the next twenty years i.e., by the end of Period 4 (2019-20) the service sector became the dominant sector accounting for 77 percent of the state income and a little more than half of total employment. Such a lop-sidedness in sectoral growth performance is also visible for all-India but lower than Kerala mainly because of the relatively higher share of agriculture in national income (Table 8).

Table 7: Sectoral Growth Contribution to Overall Growth in Kerala based on MSI 1999-00 prices								
Sector	Region	P1	P2	FP	P3	P4	SP	WP
Primary	Kerala	39.0	-21.1	14.2	21.3	-1.6	0.7	6.7
	India	28.3	23.4	27.4	20.2	8.8	10.3	15.1
Secondary	Kerala	19.2	59.0	32.9	15.2	23.2	21.4	23.8
	India	21.0	16.2	21.2	24.5	22.1	25.1	24.0
Tertiary	Kerala*	41.8	62.2	52.9	63.5	78.4	77.9	69.5
	India	50.7	60.4	51.4	55.3	69.1	64.6	60.9
All Sectors	Kerala	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	India	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Note: P1 to P4 refer to Periods. Period years as shown in Table 3. FP and SP stand for First and Second Phases. WP stands for Whole Period. Kerala* indicates that all remittances are accounted for in the Service Sector. Two points on sectoral growth calculation: (1) Share of each sector is based on geometric mean of the annual shares of sectoral NDP to total NDP at current prices for a given period. (2) Overall growth rate is based on kinked-exponential growth in MSI/NDP at constant prices.								

Table 8: Structural transformation of the Kerala and All India Economy: Sectoral percentage shares of the total income and employment									
Sector	Indicator	1983-84		1987-88		1999-00		2019-20	
		Kerala	India	Kerala	India	Kerala	India	Kerala	India
Primary	Income	39.3	34.2	34.0	28.7	21.7	22.2	5.0	9.9
	Employment	57.3	67.9	50.6	64.2	37.3	60.2	18.4	43.9
	Product/Worker ratio	0.69	0.50	0.67	0.45	0.58	0.37	0.27	0.23
Secondary	Income	23.5	17.4	24.1	17.3	20.5	16.0	20.7	14.9
	Employment	19.1	13.5	20.4	15.6	25.6	15.7	30.7	23.8
	Product/Worker ratio	1.23	1.29	1.18	1.11	0.80	1.02	0.67	0.63
Tertiary	Income	41.9	48.4	41.9	54.0	57.8	61.8	74.3	75.2
	Employment	23.6	18.6	29.0	20.2	37.1	24.1	50.9	32.2
	Product/Worker ratio	1.78	2.60	1.44	2.67	1.56	2.56	1.46	2.34
Note: Income data in 1999-00 prices. NSDP data from CSO's National Accounts Statistics, various issues. Kerala's state income data based on NSDP. Employment data calculated from unit level data from NSS 38 th (1983), 43 rd (1987) and 55 th Rounds (1999-00). For 2019-20 from PLFS data.									

This is the result of a significant share of jobloss in agriculture that was not fully compensated by non-agriculture especially for women, as we shall see later. In terms of chronology, Kerala's structural transformation i.e., a major share of both income and employment in the non-agricultural sector, started around the late 1980s and continued uninterruptedly such that the share of agriculture in state income/employment reduced from 30 and 51 percent respectively in 1987 to 4 and 18 percent respectively in 2020. This covers exactly our Second Phase characterized by high growth of the Kerala economy. Such an early structural transformation may also be attributed to an early process of human development that continued steadily over the whole period of six decades. For men, the structural transformation in employment started as early as 1983 whereas for women it started from the beginning of the 21st century (Figures 5 and 6).

The results of sectoral contribution to overall growth – where three-fourths of the overall growth is contributed by the tertiary (service) sector throws important questions of the nature of economic development both nationally and regionally. The increasing contribution of the service sector is not on the shoulders of an already developed primary and secondary sectors as in the case of economically developed countries. The low level of productivity in the primary and secondary sectors are matters of concern since it also contributes to inter-sectoral inequality that spills over to the group inequality as between those dependent on the low productivity sectors and high productivity sectors. In the case of Kerala, the fact that close to 77 percent of the overall economic growth is driven by the dynamism in the service sector has led to a lopsided growth and consequently development. Of course, as noted in the KHDR 2006, service sector is not an unproductive sector as a whole and there are important segments including the newly emergent ones such as Information and Communication Technology that are as valuable as the goods producing sectors. However, state policy has to balance the sectoral growth rates by focusing on productivity-enhancing interventions in the primary and secondary sectors.



Source: For Figures 4 and 5: Computed from unit level data from NSS Rounds on Employment and Unemployment and Periodic Labour Force Surveys (PLFS) for the years mentioned.

Public Action, Human Development and The Emergence of a Social Economy

In the transformation of Kerala from a ‘High HD with low EG’ to a ‘High HD with High EG’, there are important sub-texts to understand the rising trajectory of human development irrespective of the down and up-swings in the economic growth trajectory.

The first observation relates to the secular improvement in human development not just in the core indicators but on a wide range of indicators that captures, even if inadequately, the multidimensional nature of the process of improvement in the quality of human condition in the

Kerala society²³. This was possible, in our view, by the emergence of a vibrant social economy made feasible by various forms of public action emanating from the society.

The second observation is that the social economy consisted of institutions that catered more to the deficiencies in services than in the commodity-producing sectors. This is because the larger objective was human emancipation from a deeply embedded hierarchical society as well as to create new opportunities for human flourishing. Therefore, the direct impact of the functioning of the social economy was felt more in services than in the commodity-producing sectors. Since the social economy functioned only in a limited market sense by providing services that were either free or less than the market price, its impact on the growth of the state income was also limited. However, when the economy picked up to a higher trajectory of income growth primarily fueled by outside money in the form of remittance income, some major segments in the social economy got wider opportunities as a result of demand for its services backed by purchasing power (e.g., credit cooperative societies, increased demand for the services of cultural societies as in music, cinema, print and visual media, performing arts and so on). Hence, during the second phase, the result was a higher acceleration in the growth of the service sector than the commodity producing sectors of primary and secondary activities whether taken separately or in combination. Empirical evidence on a segment of the social economy i.e., Non-Profit institutions (registered under Charitable Societies Acts and Indian Trust Act) show that there is a high density of the social economy in Kerala (see Tables 9 and 10).

It is within this perspective that we make an attempt to understand the emergence and strengthening of the social economy in Kerala.

The idea of public action is crucial here to understand the emergence of a strong social economy. Starting with the struggles for social dignity in the first half of 19th century by Hindu lower castes along with the introduction of foreign Christian Missionary work in providing formal education, the three constituent regions of present-day Kerala witnessed a series of social reform movements in quick succession. One of the remarkable outcomes of the social reform movements was the establishment of a large number of schools and colleges and training centres through collective efforts of communities (see, e.g., Salam and Nair 2005). From a social economy point of view the most consequential feature of these educational institutions was that admission was open to all aspiring students irrespective of their community identity. Education was free at the primary level but was charged a fee for the high school levels. This social economy sector in education was called the ‘aided sector’ since the governments gave them an annual grant for maintenance. By the time the State of Kerala was formed 63 percent of the schools were in this aided sector registered as trusts and charitable societies controlled by community organisations (Salam and Nair 2002: 252). The story in most other parts of India may not be very different but the crucial difference could perhaps be in the coverage.

In parallel with the emergence of a social economy in formal education, a more significant development in Kerala was the spread of non-formal education beginning with literacy and then covering, education for social reform. This larger process took place as part of further social reform, freedom movement and then radical political movement. This created an increasingly large market for printed materials (newspapers, leaflets, magazines and books). The literacy movement resulted in a large network of setting up village libraries through voluntary effort over and above a network of public libraries aided by the state. The village libraries, starting from the 1930s, continued to grow

²³ While most social groups experienced progress, its unevenness and the challenge of initial conditions continues to pose problems especially to the two identifiable social groups of Dalits (Scheduled Castes) and Adivasis (Scheduled Tribes).

well into the end of the 20th century and came to be known as ‘the library movement’ in Kerala (see Pillai 2003). They were recognized by the state and a system of minimal grants to purchase books were introduced from early 1950s. The parallel activities of other social movements with a specified social purpose added, in our view, to the demand for more and better literacy followed by a generational change in sending children for formal education. For brevity, we have given a brief summary of the social economy in Kerala (see Table 9) to suggest that the continuing progress in several dimensions of social and human development needs to be seen from the prism of public action through a variety of voluntary social movements and social economy institutions.

New social movements such as the ‘people’s science movement, spearheaded by the Kerala Sastra Sahitya Parishad (known as KSSP in Kerala) generated significant voluntary labour in disseminating scientific information among students through extramural classes, cultivating a scientific temper among the larger masses through publications and public study classes, performing arts and special studies. A growth angle to these activities was the publication of three periodicals and close to one thousand book titles over half-a-century since its formation in 1962²⁴. By mid-1970s, an environmental movement began to take shape largely through a collection of smaller groups and organisations spread across the state. Women’s movement focusing more vigorously on issues of gender equity, dignity, and safety made a strong presence by 1990s.

All these created a vibrant public sphere. From the point of the linkage between human development and economic growth the emergence of the social economy out of such a vibrant public sphere resulted in two types of linkages. One is the creation of social economy entities that directly contributed to the growth process that did not fully capture its market value. The principal institutional form was the setting up of cooperatives. A higher percentage of cooperatives continue to function in the area of credit services although it is present in many other services such as education, health care and so on. In the case of commodity-production the cooperative sector could realise only limited success due to a variety of reasons. Despite the growth of a pro-labour radical political movement and its ability to secure government power through elections, the rather muted performance of labour cooperatives is an area that calls for serious research investigation²⁵. However, the idea of cooperation has also become, if not in a legally ordained institutional form, the motivation for a number of other types of social economy entities such as the non-profit organisations registered under a charitable societies act.

The Non-Profit sector has gained currency in understanding the functioning of a modern economy. The United Nations System of National Accounts has recommended studies on this sector including quantification of its contribution to national income. As the name suggests quantification of output in monetary terms has its limits since it is ‘non-profit’ by definition. Despite such limitations studies based on surveys carried out by the national and state level statistical systems are now available for selected years. Kerala’s position in the Non-Profit Sector is way above its population

²⁴ For a recent article on the people’s science movement spearheaded by the Kerala Sastra Sahitya Parishad see, Menon (2018). Early writings on the KSSP include Kannan (1976, 1978 and 1981), Ekbal and Isaac (2013). A book length study is by Zachariah and Sooryamoorthy (1994).

²⁵ There are a few exemplary examples of labour cooperatives that provide direct employment to its members when faced with a crisis of retrenchment. Even before the emergence of the freedom movement, not to speak of the radical political movement, a labour cooperative was formed in 1925 under the initiative of a social reformer called Vagbadananda (see Divya Kannan 2012). This cooperative known as Uralungal Labour Cooperative Society (ULCS) not only sustained itself but flourished into a modern labour cooperative in the 21st century. Today, ULCS is one of the leading public works contractors for local as well as state government departments (see Isaac, et. al. 2020).

share indicating its wider prevalence than in the rest of the country. Its activities are also spread over a number of areas. In terms of employment, the NPF sector is reported to have 16.3 lakhs paid employees in 2008 that was close to 13 percent of the total workforce as per the NSS 68th Round in 2011-12 (see Tables 9 and 10).

Table 9: Activity-wise Registered Non-Profit Institutions up to 2008 in India and Kerala		
Activity Sector	India (%)	Kerala (%)
1. Culture & Recreation	11.7	24.9
2. Education & Research	19.40	2.2
3. Health	1.9	1.3
4. Social Services	41.3	18.2
5. Environment	0.9	0.9
6. Development & Housing	5.0	18.3
7. Law, Advocacy & Politics	0.2	0.2
8. Philanthropy & Voluntarism	0.6	0.1
9. International activities	0.1	0.1
10. Religion	4.8	11.0
11. Business & Professional Associations, Unions	7.3	13.5
12. Not elsewhere classified	5.0	9.3
Information not available	2.0	0.1
Percentage total	100.0	100.0
Total number of NPIs (000s)	3174	326
Kerala NPIs as % of India	100.0	10.3
Kerala Popn as % of India	100.0	2.6
Source: Compiled from Government of India (2012).		

Table 10: Salient feature of NPIs: All India and Kerala		
Items	India	Kerala
1. % of NPIs functioning	70	100
2. % registered before 1980	10	6
3. Average size of GB	10	10
4. Average no. of volunteers	22	28
5. % of men in 4	74	71
6. Average no. of paid employees	3	5*
7. Total employees (in lakh)	66.7	16.3
Note: *including part-time (4.4+0.8).		
Source: Compiled from Government of India (2012).		

The emergence of a public sphere consisting of so many social and political movements that gave rise to a social economy also helped the emergence and expansion of a cultural economy of creative arts that awaits serious research from a developmental point of view. The rich repertoire of creative arts, crafts, sports in Kerala, as in the rest of India, await an assessment from the point of an expanding economy as part of the overall development of the society.

Cultural economy is a by-product of the larger process of cultural activities for individual and collective enjoyment that enhances human flourishing. In that sense it adds to the quality of human development and an end in itself. However, it also contributes to a society of creative wealth and demand for cultural goods and services. While a good part of these activities might be embedded in the social economy there are segments that are fast developing as part of the monetized market

economy as in the case of music and cinema, performing arts and sports. The demand for these products and services might have also contributed more to the service sector than to the material producing sectors. Literature on economic development has more often than not ignored this aspect of development. A recent work (Kabanda 2018) makes a powerful case for promoting arts as part of economic development that could, inter alia, take away the tag of ‘backward’ while referring to the developing countries in an economic sense.

The contribution of the social economy in Kerala first in generating an ‘effective political demand’ for human dignity and development and then creating a vast institutional structure and a corresponding social economy more of services than production is yet to be studied in a holistic framework to understand its long term and substantive contribution to a remarkably high human development status of Kerala. This was an integral part of a larger deliberative public sphere that became, and continues to be, the spring board of public action. A favourable state is indeed crucial but the positive response of the state was also rooted in the political gains that successive political party combinations secured through electoral successes. Often such state responses fulfilled the sectional demands, as in expanding educational facilities and affirmative action although the latter became a contested terrain since some social groups were not eligible for the benefits. This should dispel the impression, if any, that it is the institution of the state in Kerala and its progressive policies – first by the Travancore and Cochin princely rulers and then the democratically elected governments – that was solely or largely responsible for the high human development. What is significant is the ‘push’ given by the Leftist governments in the form of land reform, labour organisations for bargaining higher wages and state-assisted housing, to mention a few, that enabled poor sections to access the expanding educational and health services and demand state-assisted social security through ‘Welfare Boards’ for the unorganised sector workers. As I have tried to show earlier, it is this socially-embedded public action resulting in overall human development that first contributed to a part of the economic growth (the demographic dividend that we quantified earlier) and then to a significant share of the growth process through remittances induced by migration of largely ‘educated’ labour force (also see Kannan and Hari 2020).

This background has been an important factor in the institutionalisation of decentralization of governance when the political opportunity presented itself in the 1990s. Currently confined to civic duties and local level development activities at three levels with corresponding elected bodies. Such a new system demonstrated its critical role in times of natural calamities such as floods and the recent covid 19 induced pandemics. While Kerala’s efforts in institutionalising the decentralised governance system have a long way to go especially in harnessing its full potential it has now come to be fairly embedded in the socio-political system backed by its constitutional protection (For a review of the first two decades of the new Panchayat Raj see, among others, Kannan 2015).

The argument here is that the early ‘investment’ in basic human development and the consequent evolution of an active public sphere strengthened the idea of public action resulting in the creation of a representative democratic network at the local level that could reduce the negative impacts of natural calamities by timely interventions at the local level. This is another instance of high human development contributing to reduce economic, apart from other, costs of calamities.

Table 11: Some examples of the emergence of a modern social economy in Kerala
Organisational forms and nature of activities

Charitable Societies and Trusts

Education: Schools and colleges started in the non-government sector prior to 1960 eligible for government grant for maintenance and payment of salaries and pensions directly to the teachers. More than 60 percent of schools are in the non-government sector started by community organisations.

Informal/Public Education: Kerala has a vast network of Village Libraries in villages and Town libraries started through voluntary effort. 8200 (as of 2018) receive grants from a state funded agency called Kerala Library Council. However, field observations suggest that there is an equal number or more of smaller libraries without grant from the Library Council. This vast network of libraries provides a ready and large market for books and magazines published in Malayalam. The Village Panchayat and Municipality Administrators usually sponsor the purchase of a limited number of newspapers and weekly/monthly magazines.

Health Care: A number of health care institutions in different systems of medicine are registered under the Charitable Societies or Trusts Act. They function side by side with government and private sector institutions. According to the Periodic Labour Force Survey 2017-18, 25.2 percent of the total workers (i.e., 3,15,885) belonged to sectors other than government, corporate and private. This could be reckoned as the social economy sector consisting of cooperatives, charitable societies and trusts. Health workers here include allopathy, ayurveda, homeopathy, unani, siddha and others indigenous systems.

Mutual Benefit Societies: One of the major developments in the social economy in Kerala is the emergence of what may be called 'mutual benefit societies' although they are mistakenly often referred to as 'self-help groups. This is known by the brand name 'Kudumbashree' composed of Neighbourhood Groups of around 20 women largely from poorer families; they are then linked to an Area Development Society based on elections of representatives; and at the next level a similarly elected Community Development Society at the Panchayat or Municipal levels. This three-tier structure is present in almost all Village Panchayats and Municipalities of Kerala. Their membership by 2022 was over 45 lakhs represented a little more than half the total households in the state. All of them are engaged in creating and running Thrift Funds. Besides they participate in the implementation of the rural public employment programme called the Mahatma Gandhi National Rural Employment Scheme (MG_NREGS) funded by the Government of India. A number of other activities are also undertaken, though limited as a percentage of the total membership, with financial and technical support from the Government of Kerala. All these CDSs are registered under the Charitable Societies Act.

Non-Profit Institutions: As part of the initiative of the national statistical system, surveys have been initiated to capture the presence and economic significance of NPIs. These include all organisations registered under the Charitable Societies Act, Trust Acts as well as companies that are registered as non-profit organisations. In 2008, the total NPIs in Kerala was estimated 3.26 lakhs as against 31.74 lakhs in India that gives a share of 10.3 for Kerala as against its population share of 2.6. The total employment was estimated at 16.3 lakhs that works out close to 13 percent of the total work force in Kerala in 2011. The total number of volunteers was estimated at 91.28 lakhs that works out to 35 percent of the adult population in Kerala as against 8 percent for all-India. The last two indicators may be taken to represent the density of voluntarism in a society.

Cooperatives: Kerala has a fairly strong cooperative movement in credit and non-credit activities. As per the National Cooperative Union of India, the number of cooperatives in all sectors is reported as 18,812 in 2016 i.e., 2.26 percent of all India. Half of them is in consumer, dairying and primary agricultural credit activities. Conspicuous by its low share are labour, industrial and housing cooperatives. However, the credit cooperative sector has a much higher level of financial strength as compared to all India scenario.

Trade Union Movement

Organisations led by trade union organisations such as employees; cooperatives come under the cooperative sector. However, Kerala has a number of Welfare Fund Boards (mostly created by statutory legislation) that are run for the welfare of its worker-members on a tripartite basis consisting of representatives of the state, trade unions and employers. 32 such Welfare Fund Boards are currently in existence.

Kerala's achievements in several dimensions of human development are nothing but remarkable given the initial conditions of widespread poverty, as in the rest of India, but also high unemployment especially for its educated population. While this has linked up raising overall economic growth, the persistence of high unemployment and underutilization of labour especially among the educated women continues to pose severe challenges. Moreover, the continuing low growth performance of the commodity-producing sectors of agriculture and industry has resulted in a more lop-sided sectoral growth than before. These failures have several dimensions but the highly inefficient management of economic functions of the state are central to this lop-sided growth. We pick up three areas that call for immediate attention. These are (1) decreasing tax collection efficiency, (2) poor management of public sector enterprises leading to a drain in public resources as well as lost opportunities in public investment and employment generation, and (3) waste of resources through high time and cost overruns of public investment projects. First, we turn to the issue of educated unemployment.

II

Failures amidst Success: Spectacular Failure 1 Educated Unemployed and Gender Unfreedom

One of the unresolved challenges of Kerala's development experience is the persistence of the problem of unemployment, especially educated unemployment. Earlier in the 1970s it was a case of both educated and non-educated unemployment that later emerged as one of predominantly educated unemployment. For adult educated men, part of this problem was overcome by large scale international migration in search of jobs focused on the Gulf countries in West Asia. Given the continuing and increasing aspiration for higher education, this problem has now become one of high unemployment and underutilization of labour among educated women. This we flag as a spectacular failure of the Kerala 'Model' of Development.

The conventional wisdom in development economics is that as an economy goes through a growth phase it helps in the growth of employment, since growth is usually driven by the relatively higher productivity in the non-agricultural sector especially manufacturing. This in turn also results in the growth of employment outside agriculture. Since manufacturing is associated with a higher labour ratio with respect to output as well as higher backward and forward linkages than other sectors, it is the expansion of this sector that economists advocate both for growth and employment.

We have seen that the growth performance of the Kerala economy in the Second Phase spanning over more than three decades was as impressive as the all-India economy, if not better. However, this did not result in the creation of additional jobs to absorb the surplus labour, that was getting increasingly educated, in the economy. That the all-India scenario is also not dissimilar points to the overall national context in which growth was not adequately accompanied by net employment creation. In the case of Kerala, a good part of the problem of unemployment and underemployment of men was taken care of by the window of opportunity provided by international labour migration. When the growth is not accompanied by employment creation to the expected extent, what it suggests is that the employment content of growth is declining which is measured by employment elasticity. This could be due to technological or organisational changes taking place in the low productivity sector or new investments in less employment generating high productivity sector. We have presented

in Table 12 the employment elasticity in the Kerala economy including the sector-wise figures. The period is limited by the availability of detailed data but covers a time-span of 36 years including Periods 3 and 4 that comes under our Second Phase.

The results show that the declining employment elasticity in the Kerala economy has reached a stage (Period 4) when it is a case of jobless growth. But the devil is in the detail. It is entirely contributed by the exodus of labour from the agricultural sector right through the whole time-span. While the secondary and tertiary sectors also show a decline, they continue to have positive employment growth. It is quite plausible that the phase of labour exodus from agriculture is over – only 18 percent of the work force in 2019-20 compared to 44 percent for all-India – and the future trajectory of employment elasticity could be a brighter one provided new investments are attracted to the non-agricultural sector.

Table 12: Employment elasticity in the Kerala economy and all-India economy				
Sector	1983 to 1987	1987 to 1999-00	1999-00 to 2019-20	1983 to 2019-20
Primary	-2.86 [16.84] *	-0.55 [0.35]	-3.68 [-0.07]	-5.28 [0.16]
secondary	0.74 [1.37]	0.50 [0.36]	0.21 [0.53]	0.33 [0.54]
Tertiary	1.02 [0.59]	0.30 [0.46]	0.26 [0.35]	0.33 [0.41]
Economy	0.32 [0.49]	0.12 [0.31]	0.07 [0.20]	0.10 [0.26]
Note: * Income growth was 0.05 while employment growth was 0.81. Sources: Computer from unit level data from NSS 38 th , 43 rd , 55th Rounds and PLFS 2018-19.				

Since net employment creation is the result of a process of employment creation and employment destruction, we are in a position to measure the magnitude of employment lost and gained. Table 13 presents the relevant figures. The labour exodus from agriculture is to the tune of 37.8 lakh while the new employment created is to the tune of 64.1 lakh thus giving a net employment creation of 26.3 lakh during a period of 36 years. However, what is critical is the rise in net unemployment except for a brief Period 3 but a much more increase in the net unutilized labour that is equivalent to three-and-a-half times the net increase during 1983 to 1987. This translates itself to a low rate of actual growth in employment compared to the warranted growth dictated by growth in labour force (i.e., employed + unemployed in the sense of those seeking work), let alone the growth in labour underutilization (i.e., those who are out of workforce and in education, LU for short).

But what is significant from the point of what we call ‘spectacular failure’ of the KMD is the gender dimension in the net employment creation out of the dynamic process of employment creation and destruction. Our exercise reported in Table 13 show that despite a significant decline in employment in the primary sector affecting both men and women, men had a net gain of to the tune of 25.77 lakhs between 1983 and 2020. This, along with their migration to outside the state to the rest of India and abroad (mainly to the Gulf countries), men have brought down their additional unemployment to an insignificant level.

But the experience of women is exactly an opposite one. Their loss in primary sector employment is almost close to their gain in non-agricultural employment with the result that the net gain has been so small (less than a lakh). This means no significant employment gain during the last 36 years despite an increase in average level of education, reduction in fertility rate and a consequent increase in the working age population. This has increased the additional entrants to the pool of unemployed. But more significantly those who are out of work and education (called LU) increased significantly, from 46 to 57 percent of the working age population (see Table 15). It is this category that includes not only the unemployed (in the sense of seeking work) but also those who could be

characterised as discouraged workers indicated by an increase in the share of LU in the working age population.

From an earlier analysis of the employment trends in the Indian economy we had found (Kannan and Raveendran 2020) that those who lost jobs in recent times is the category of less educated in both men and women i.e., those with less than secondary level of education. It is therefore pertinent to check this dimension with reference to Kerala. Our findings reported in Table 13 show that the entire net loss in employment between 1983 and 2019 has fell on those with less than secondary level of education. Of course, women's loss is double that of men. What is significant is that those educated (secondary and above) has not experienced a net loss of employment in any of the broad three sectors or the detailed single-digit industrial classification (see Table 13). This should be a matter of concern as those with low education are usually found in poorer households. It is also possible that with a generalised upward shift in education even those who are currently engaged in manual work have a higher level of education and that they stand to gain whenever new employment opportunities come up even in the casual labour market.

It is in this complex process of large-scale loss of employment in agriculture and new employment creation in non-agricultural activities where those with low education have been left out that Kerala has experienced a structural transformation. For the economy as a whole 1993-94 seems to be the turning point when the employment in the primary sector fell below 50 percent of total employment. In income terms the share of the primary sector had already fell below the 50 percent mark as early as the seventies. Such a structural transformation took place in the national economy after a gap of close to two decades i.e., around 2011-12.

Table 13: Net gain/loss in employment differentiated by gender and major activity sector between 1983 and 2020 (in lakh)				
Category	Secondary and above		Below Secondary	
Sector	Male	Female	Male	Female
Agriculture	2.493	1.082	-17.645	-19.274
Mining & Quarrying	0.133	0.037	-0.693	-0.233
Primary Sector	2.626	1.119	-18.338	-19.508
Manufacturing	4.330	1.868	-3.622	-3.428
Electricity, GWS	0.257	-0.024	-0.043	0.005
Construction	7.622	0.720	7.921	4.144
Secondary Sector	12.207	2.564	4.256	0.721
Trade	8.227	2.459	2.477	1.861
Hotels & Rest	0.256	0.181	-1.595	-0.199
Transport, St & C	4.218	0.261	1.295	-0.212
Financial Intermediation	1.605	1.241	0.117	0.621
Real Estate, Renting & BS	3.111	1.380	0.562	0.134
Public Admn & Defence	0.154	0.642	-0.420	0.071
Education	1.111	3.203	-0.118	-0.069
Health & Social Work	1.777	2.328	1.584	1.028
Other C S & PS	1.038	0.912	-0.114	-0.077
Pvt HHs wEPs	-0.001	0.094	-0.265	-0.280
Tertiary Sector	21.496	12.701	3.524	2.878
Total Gain/Loss	36.329	16.384	-10.559	-15.908
Note: 2019 represents 2018-19. Source: Computed from unit level data from NSS 38th Round and PLFS 2018-19.				

The sum and substance of a jobless growth process in Kerala, as it has later been in India, is a kind of structural transformation whereby both income and employment in the primary sector has become insignificant. In income terms it is just five in 2019-20 whereas employment is just 18 percent. From a future growth and development point of view, it will be the non-agricultural sector that will drive the process. However, the challenging issue here is the low share of manufacturing in both income and employment. Such a scenario becomes all the more challenging when we view the sectoral product per worker ratio in the three sectors. The exodus of workers from agriculture is not due to an increase in labour productivity but a loss of labour-intensive rice cultivation that got substituted by annual and perennial cash crops. But later the gross cropped area has also started declining as a result of the high pressure or demand for land for non-agricultural activities especially building construction.

It is in such a context of the lacklustre performance of the commodity-producing sectors accompanied by a jobless growth of the overall economy that international migration emerged as a safety valve for the increasingly educated adult male members of the society. That option was not available to the adult women members in general. In fact, the required mobility to secure employment even within the state is limited by social norms, institutions and concerns about security. These kinds of ‘unfreedom’ defines women’s ability to find employment that further gets exasperated due to low demand. This has led to two kinds of situations. One, a greater incidence of unemployment in the official sense (i.e., those seeking work as a percentage of the labour force) but more importantly a higher incidence of underutilized labour (i.e., those seeking and not seeking work but out of work and education). It is this dimension of the inability of the state of Kerala to utilize the educated labour of women that we highlight as a ‘spectacular failure’.

Despite equipping themselves with higher levels of education and low and early completion of fertility (before age 30) women find themselves trapped in households without opportunities for gainful and decent employment. If we take the working age group of 15-59 years, the progression in acquiring higher educational capabilities is truly remarkable both for men and women. In 1983 only 18.5 percent of men and 15.4 percent of women had an educational attainment of at least secondary level (10 years or above). By 2019-20 it increased to 60.8 percent for men and 61.2 percent for women. The percentage of men with at least a graduate level was a mere 2.9 percent in 1983 that increased to 14.8 percent; while for women it increased from 2.3 percent to 19.8 percent. The lower rate of increase in graduate level and above for men could be a statistical one because of the disproportionate number of educated young men emigrating to other parts of India and abroad (mostly to Gulf countries) in search of jobs and better opportunities.

However, the outcome in the labour market is quite contrary to this progression in one of the important dimensions of human development. We have realized that the problem cannot be captured by examining the officially recognized unemployment rates alone. The limitation of this measure is that it is expressed as a percentage of the labour force i.e., those employed plus those who are seeking work. A considerable proportion of women are outside these two categories that suggest the existence of ‘discouraged workers’ as well as those who are unable to seek work due to restricted mobility. We therefore took an accounting framework of activities of those belonging to the working age group of 15-59 in terms of workers, those engaged in education and those other than workers and in education. In addition, we separately examined the problem among the younger generation by focusing on the age group 20-39 years. Following our earlier finding (Kannan and Raveendran 2020) that the labour market in India is sharply divided, among others, by education we take the two broad categories of (a) Less Educated (Below Secondary level), and (b) Higher Educated (Secondary and above level).

By measuring both unemployment (in the sense of ‘seeking work’) and under-utilisation of labour (seeking plus not seeking work but out of work and education) we get a fairly good picture of the intensity of the problem. Men have considerably low levels of both the official measure of unemployment as well as the under-utilisation of labour. Moreover, men in the less educated category have less ‘unemployment’ as well as LU as compared to the educated category. This is an interesting development for a number of reasons. First, the secular rise in educational attainment reduced the supply of labour for casual work that is wholly associated with informal work status. In fact, the shortage of men for manual casual work has led to a situation of in-migration of workers from other states in India especially from the central and eastern regions. Second, men in informal work in the informal sector is well organised in Kerala and has secured a higher wage rate than their counterparts in other states in India as well as women in Kerala. Third, they are also covered by collective care arrangements under occupation-specific ‘Welfare Funds’ (see Kannan 2002). Fourth, an overwhelming proportion of emigrants – specially to Gulf countries – are men earlier in the lower education category but now in the higher one. None of these favourable factors are available for women and hence less educated women experience a higher unemployment as well as LU for reasons of lack of adequate employment in the local economy as well as a lower mobility across space than men. It is this situation that we characterize as ‘unfreedom’ for women in Kerala despite their best efforts in enhancing educational and other dimensions of human capability to participate in the workforce. What is also important here is the rising aspirations among women for regular employment.

Table 14: Official Unemployment Rate i.e., those seeking work by age, gender and education						
Category	Gender	Kerala				All India
		1983	1987	1999-00	2019-20	2019-20
Working Age Group 15-59 years						
All	Male	8.2	10.6	6.7	8.6	5.6
	Female	9.3	18.9	16.6	17.6	4.6
Secondary & above	Male	16.7	19.2	11.4	13.0	9.3
	Female	30.3	42.0	37.1	26.3	14.2
Below Secondary	Male	6.7	8.3	4.6	2.6	2.7
	Female	5.7	12.1	6.2	3.0	0.6
Younger Generation WAP 20-39 years (Men Only)						
All	Male	8.0	11.2	7.9	13.6	8.0
	Female	10.3	23.3	23.2	33.9	7.7
Secondary & above	Male	18.2	22.5	15.1	17.1	12.9
	Female	32.5	45.5	44.2	38.4	18.3
Below Secondary	Male	5.8	7.7	3.8	3.8	2.9
	Female	5.2	14.5	7.8	8.7	0.8
Source: Computed from unit level data from the NSS 38 th , 43 rd , and 55 th Rounds and from PLFS 2018-19.						

Table 15: Rate of Labour Underutilization (LU) as percent of Working Age Population by age, gender and education						
Category	Gender	Kerala				All India
		1983	1987	1999-00	2011-19-20	2019-20
Working Age Group (WAP) 15-59 years						
All	Male	10.5	12.2	9.2	11.3	7.3
	Female	45.5	53.4	56.3	56.9	57.2
Secondary & above	Male	13.5	15.9	10.2	13.0	8.7
	Female	34.3	45.8	51.6	52.4	53.8
Below Secondary	Male	9.8	11.1	8.7	8.7	6.1
	Female	47.6	55.4	58.5	64.0	59.21
Younger Generation WAP 20-39 years (Men Only)						
All	Male	9.7	12.9	9.4	14.9	9.2
	Female	50.2	59.6	62.3	64.9	63.9
Secondary & above	Male	17.0	20.7	14.2	16.9	12.0
	Female	45.2	57.0	62.8	62.6	62.9
Below Secondary	Male	7.9	10.1	6.4	8.7	5.9
	Female	51.2	60.3	62.9	73.8	64.7
Source: Computed from unit level data from the NSS 38 th , 43 rd , and 55 th Rounds and from PLFS 2018-19.						

Spectacular Failure 2

Declining tax collection efficiency and the resultant loss of public resources

The assumption of a responsive state to public action focused on human development in a long-term historical perspective is not difficult to recognize but no such public action was visible in the sphere of management of public finance. This could be due to the fact that people do not experience, generally speaking, public finance as a factor in their day-to-day lives unlike the case of education, health care and social security.

The continuing bane of unemployment, increasingly manifesting as educated unemployment, has to be characterized as a spectacular failure of the Kerala's development experience that is at the root of its trapping as a low-income middle economy by global standards. While public action in the form of protests by the unemployed has been a frequent phenomenon, the regional state has not yet been able to devise an action plan that focuses on the creation of decent employment. Its ability to attract private investment has been a very limited one especially in the manufacturing sector. Much of the private investment that has taken place in Kerala has been an outcome of the uninterrupted flow of outside money in the form of international remittances and its multiplier effects in consumption and in selected areas of investment as in the case of construction, food-processing, tourism, higher education, and tertiary level treatment hospitals. It has also attracted investments in quick-money ventures notably in the entertainment sector such as film production, TV channels, and retail trading shops in gold jewelry and white goods.

While these new investments have created new jobs, we have seen that more jobs were destroyed in the agricultural sector as well as in some others. The regional state's ability to create decent jobs for the educated unemployed got stymied mainly due to the lack of financial resources to strengthen infrastructure, start new ventures in the public sector and/or strengthen the existing ones as well as embark on public employment programmes that could be linked to the creation of new capital

especially in strengthening and improving the natural capital via land and water management, investment in renewable energy, waste management and so on. All these call for an efficient management of public finances to husband as much public financial resources as feasible. In this crucial sphere of governance, the regional state in Kerala has been a failure which we call ‘spectacular’ given the potential created by early investment in human development and its consequent unintended benefit in the form of a steady flow of outside money for four decades that varied between 10 and 24 percent of the state income.

What is the nature of this ‘spectacular failure’? In the Indian federal context, there are two major sources of revenue for a regional state. One is called ‘Own Revenue’ sources given the state’s constitutional authority to tax defined goods and services, and the other ‘Central transfers’ that come from the national state through allocations determined by a Finance Commission and what is called transfers to implement ‘Centrally-Sponsored Schemes’. The second source is beyond the control of the regional state and partly determined by a constitutional procedure and partly by the discretion of the national government. Therefore, the focus has to be in raising own revenue and efficient management of its expenses.

The main indicators of public finance in Kerala are given in Table 16. Here we have calculated the Own Revenue of the state as a percentage of the state income. Since the official statistics on state income excludes the outside money in the form of international remittances, we have, as pointed out earlier, a revised state income called Modified State Income. Therefore, both the NSDP and MSI figures have been used to calculate the percentages. What we find is a declining trend in the share of own revenue as a percentage of state income since 1987-88 that corresponds to the beginning of the second phase of aggregate growth that in fact witnessed an acceleration (see Figure 7). The question then is how does one measure the tax collection efficiency or lack of it? One way is to find out the tax potential and compare it with the actual collection to find out the gap. But this requires estimates of tax potential which could have been best carried out by the government but not undertaken so far. In the absence of such a direct estimate, we opt for a second-best solution. We look at the long-term performance in tax collection and identify the period when it had reported the maximum collection as a share of state income. In our four-period classification scheme, we find the Period 2 as the best period when the tax collection efficiency was the maximum with an annual average of 12.4 percent of the state income (or 11.3 percent of the MSI). We then find out the gap between this historically given efficient average with that of the annual average of actual collection for the other three periods. The results are reported in Table 16. This gap is the loss of own revenue (calculated as OR Loss1 and OR Loss 2).

The loss of own revenue as a percentage of state income for the four periods are given in Table 17. The revenue lost is 2.6 to 2.8 times of the average annual capital expenditure for the sixty-year period as a whole. To put it differently, if the Own Revenue had been collected to the extent of the average for the Period 2, the capital expenditure of the Government of Kerala as a share of its NSDP could have been raised by 0.32 times during the First Phase and 3.4 times during the Second Phase. As a share of MSI it could have been raised by 0.03 times and 3.8 times. The record in the loss of capital expenditure during the high growth phase is a powerful indicator of the lost opportunity to create additional infrastructure.

The figures presented in Table 16 also bring out the sources of this lost opportunity. While the decline in revenue collection efficiency can be traced to both the tax and non-tax revenues, it is the latter that has disproportionally contributed to this state of affairs. What is surprising is that precisely during this declining efficiency period the economy has been witnessing a steady increase in taxable

goods arising out of both construction as well as direct consumption demands. Examples are the increasing use of electrical equipment including in households, electronic products including such personal products as computers, laptops, music devices, mobile phones, textile products, medical equipment and pharmaceutical products and so on. The high growth rate in the purchase of motor vehicles is another.

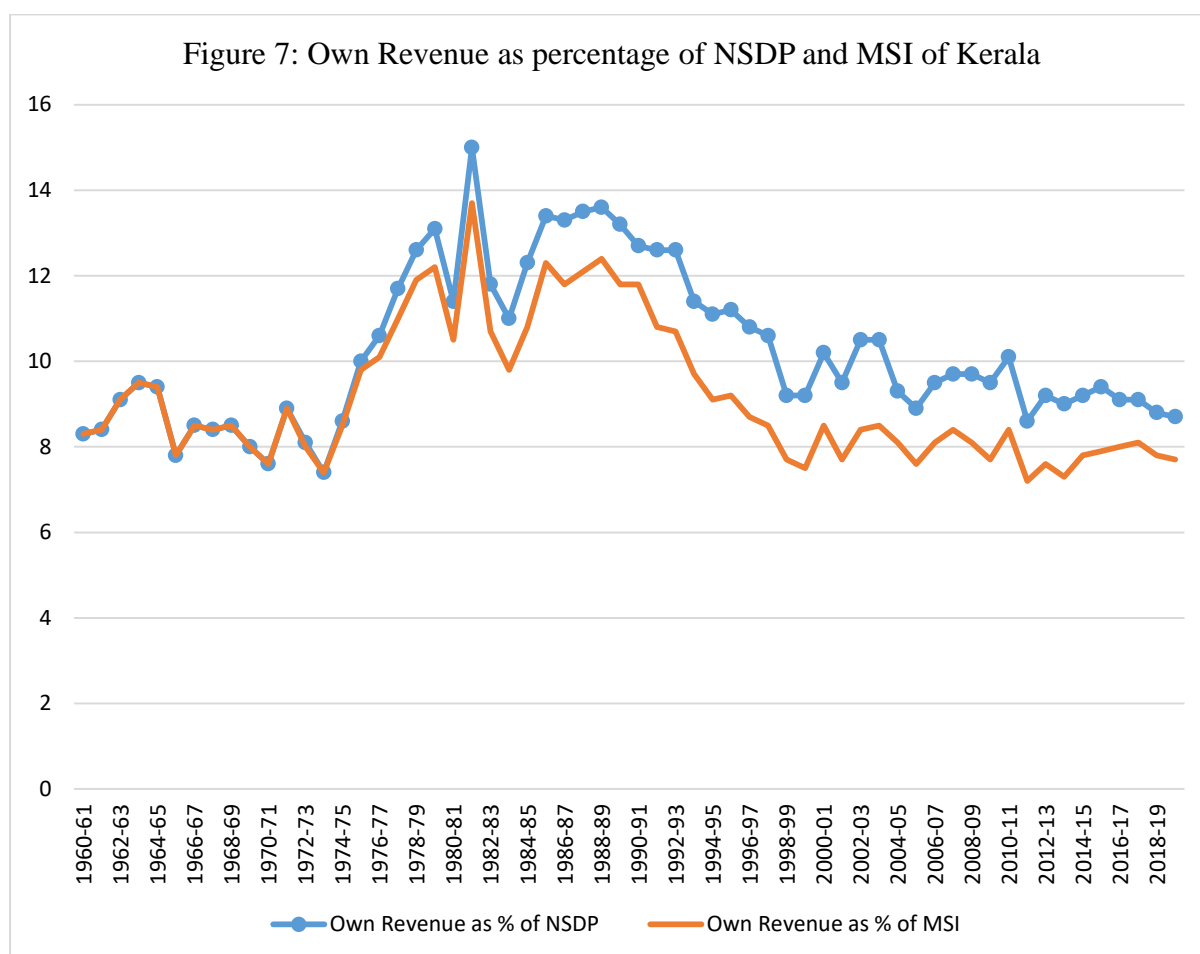
The second point is the high share of revenue expenditure in the total expenditure of the Government of Kerala that exceeded total revenue in several years. During the First Phase, 15 out of a total of 27 years reported revenue deficits. But they were almost negligible as a percentage of the state income at -0.2 percent. However, during the high growth Second Phase, the average revenue deficit jumped to -2.6 percent of NSDP and -0.2.2 percent of MSI.

To add to this poor state of affairs, the share of the Central Government in Kerala's total revenue has also been declining. While this is not unique to the State of Kerala, it also reflects the weakening power of the States in India in public resource mobilization. Had the own revenue collection been maintained at the Period 2 average level, Kerala would have almost obviated the need for incurring public debt. Alternatively, such debt could have been utilized for enhancing capital expenditure.

Table 16: Measurement of loss of revenue measure as percent of state income (NSDP and MSI) and its equivalence in terms of debt and capital expenditure								
Sl No	Indictor	Period 1	Period 2	First Phase	Period 3	Period 4	Second Phase	Whole Period
1.	Own Revenue as % of NSDP	8.3	12.4	11.5	11.1	9.2	9.3	9.3
2.	Own Revenue as % of MSI	8.3	11.3	10.7	9.3	7.8	7.9	7.9
3.	Own Tax Revenue as % of NSDP	5.6	9.6	8.7	9.7	7.8	7.9	7.9
4.	Own Non-Tax Revenue as % of NSDP	2.7	2.8	2.8	1.4	1.4	1.4	1.4
5.	Own Tax Revenue as % of MSI	5.6	8.8	8.1	8.8	6.6	6.7	6.7
6.	Own Non-Tax Revenue as % of MSI	2.7	2.6	2.6	1.1	1.2	1.2	1.2
7.	Share of Revenue Expenditure in Total Expenditure	87.2	86.1	86.3	92.0	92.5	92.4	92.4
8.	Central transfers as % of Total Revenue	36.5	33.3	33.9	30.3	28.7	28.8	28.8
9.	Annual debt as % of NSDP	2.2	3.2	3.0	3.8	3.8	3.8	3.8
10.	Annual debt as % of MSI	2.2	3.0	2.8	3.1	3.3	3.3	3.3
11.	Revenue deficit as % of NSDP	-0.3	-0.2	-0.2	-2.2	-2.6	-2.6	2.5
12.	Revenue deficit as % of MSI	-0.3	-0.1	-0.2	-1.8	-2.2	-2.2	2.2
13.	Fiscal deficit as % of NSDP				-2.7	-4.0	-3.8	-3.9
14.	Fiscal deficit as % of MSI				-2.3	-3.4	-3.3	-3.3
Source: Computed from data given in Government of Kerala, <i>Budget in Brief</i> , Various issues. MSI = NSDP plus annual remittance from abroad.								

Sl No	Table 17: Cost of declining revenue collection efficiency							
1.	Own Rev Lost as % of NSDP	4.1	0.0	0.9	1.3	3.2	3.1	3.1
2.	Own Rev Lost as % of MSI	3.0	0.0	0.6	2.0	3.5	3.4	3.4
3.	Capital expenditure as % of NSDP	1.96	3.03	2.79	1.6	1.3	1.3	1.3
4.	Capital expenditure as % of MSI	1.95	2.77	2.60	1.3	1.1	1.1	1.1
5.	Potential Capital Expenditure as % of NSDP (1+3)*	5.97	3.03	3.69	2.9	4.5	4.4	4.4
6.	Potential Capital Expenditure as % of MSI (1+4)*	5.96	2.77	2.69	2.6	4.3	4.2	4.2

Source: Note: *Assuming revenue collection efficiency at the Period 2 average. Computed from data given in Budget in Brief, Various issues. MSI = NSDP plus remittance from abroad.



Spectacular Failure 3

Public Sector as a drain on Public Resources

While the spectacular failure in collecting fully or even substantially the state government revenue is a sign of the failure of the sub-national state in sharp contrast to its shining performance in advancing human development, there is another failure, which also we would like to call as spectacular. This is due to the inability of the public sector enterprises (PSEs), taken as a group, owned by the state government. Most of the enterprises were created after the formation of the State of Kerala numbering

between 90 to 100 by the beginning of Period 3. Since annual data on the performance of all the enterprises as a group as well as individually are available only since the early 1980s, our analysis refers to the 31 years covering the Second Phase of the KMD. The results of our analysis of the available data on the performance of state-owned public enterprises in Kerala should shock anyone given the stellar performance of the state in advancing human development that later led to a process of accelerated economic growth lasting for a period of 31 years!

Kerala has been in the lead during the 1970s and 80s in creating a number of public sector enterprises arising out of a political realization that without industrialization it cannot neither create what we now call decent employment to the increasing educated youth nor increase the per capita income of the people. However, management inefficiency compounded by short-termist demands of politically powerful trade unions resulted in net loss year after year. Table 18 shows that the number of loss-making enterprises often outnumbered the number of profit-making companies. The result has been a net loss for the public sector enterprises as a whole for the two periods that come under our Second Phase of KMD that was characterized by an impressive aggregate growth performance. This we call Loss-1. This comes to 2.9 percent of the state's own revenue for the second phase as a whole; starting with a positive contribution of 6.4 percent in equivalence to the state's own revenue but ending in 2018-19 with a negative contribution of 3.3 percent in equivalence.

Given the scarcity of capital resources it is perfectly reasonable to expect a profit that is at the least equal to its opportunity cost that may be taken as the average cost of capital when the public sector enterprises seek loans from the market. We have therefore taken expected profit at ten percent of the capital invested and added the actual losses. Viewed from this angle of adding the opportunity cost of capital, the losses incurred by the PSEs as a group works out to 14.3 percent of the state's own revenue during the Second Phase and 16 percent in equivalence to the state's own revenue starting with a negative contribution equal to 9.3 percent in 1987-88 and reaching a high of 27.1 percent in 1999-00 and then declining to 11.8 percent in 2018-19.

Table 18: Summary results of the performance of Public Sector Enterprises in Kerala				
	Period 3		Period 4	
Indicator	1987-88	1998-99	1999-00	2018-19
Total number of PSEs	93	106	107	98
Number of Loss-making PSEs	54	51	56	43
Total employment/annum (in lakh)	1.40	1.26	1.26	1.23
Loss 1 as % of State's Own Revenue*	6.4	(-)1.6	(-)2.4	(-)3.3
Loss 2 as % of State's Own Revenue**	(-)9.3	(-)24.9	(-)27.1	(-)11.8
Profit/Loss per employee in Companies (Rs.)	4,688	1,553	5662	(-)52,712
Loss per employee in Statutory Boards (Rs)	3,021	(-)15,546	(-)29,085	(-)317,007
Loss in Companies (Rs in Crore)	34.06	10.24	36.94	(-)49.45
Loss in Statutory Boards (Rs in Crore)	45.65	(-)93.49	(-)176.16	(-)1578.19
Total loss in all PSEs (Rs in Crore)	79.71	(-)83.25	(-)139.22	(-)1627.64
Note: * actual monetary loss. ** actual monetary loss plus an assumed return of 10 percent over invested capital. Source: Government of Kerala, Review of Public Sector Enterprises in Kerala (Annual Publication prepared by the Centre for Management Development), Bureau of Public Enterprises, Various Issues.				

An argument often put forward in defence of the loss-making character of the PSEs is in terms of their employment. However, employment in the public sector enterprises, as shown above, never exceeded two percent of the total employment in the Kerala economy; moreover, there has been

a net decline in absolute employment arising out of the closure or liquidation of many public sector enterprises²⁶. Often loss-making PSEs are defended either because they contribute to the government towards taxes and/or fulfilling stated social objectives. The first argument of taxes doesn't hold much water because this would have accrued to the government even if the enterprise was not in the public domain. As for the second reasoning, it is often used as an alibi for hiding the deep internal inefficiencies and political interferences that seem to have acquired an institutional character. All these flies in the face of the larger developmental objective of state-led industrialisation in a poor developing economy. That is, efficient running of the PSEs is meant not only to generate current employment but also enable the generation of future employment through cycles of reinvestment of surplus generated over a period of time. It is this larger developmental dimension that is conspicuous by its absence when the PSEs as a group become a drain on public resources. In fact, the loss on a per capita employment basis, represent the cost borne by the public at large (through budgetary support) to maintain current employment in the PSEs. With a revenue deficit year after year, the state government can ill afford such drain on its scarce public resources.

There have been several attempts made by successive regimes in Kerala to improve the functioning of the loss-making PSEs so as to stop, at the least, the drain on public resources. On the basis of a number of committees and task groups, several reforms were also carried out. While isolated cases of success have been there, the overall performance seems to have worsened in terms of the actual losses incurred (see Figure 8). The dramatic increase in losses is associated with the years 2012 to 2016 followed by a small recovery in the subsequent two years. Politically speaking, a UDF government was in power during the years of the dramatic increase in losses and the subsequent revival could only bring back the losses to the previous 2016 level. This spectacular nature of the failure of the public sector in the context of the 'virtuous cycle of growth' of the KMD is something that calls for detailed investigation. We think the reasons for this failure have to be sought, as in the case of the earlier examples of failures, on the failure of the state-system (successive governments) in ensuring efficient running of the PSEs. Such a failure is in sharp contrast to the success in human development realms where public action has been the principal reason. Such a notion of public action is absent in the case of the functioning of economic institutions because the people at large do not face the adverse consequences on a day-to-day basis unlike in the case of human development and social security. This state failure in delivering directly productive economic services as opposed to the success in delivery of social services arising from public action has now become a characteristic feature of the KMD.

²⁶ As of 2018-19, twenty PSEs were either closed down, liquidated or transferred/merged with other enterprises. 15 of them were closed down and assets were transferred to public agencies for other activities.



At a disaggregated level it is too evident that the losses are largely contributed by major public sector enterprises that are/were Statutory Boards. Of the nine statutory boards, three of them contributed to around 80 percent of the total accumulated losses with the Kerala State Road Transport Corporation occupying the first place (see Table 19). The change of the status of two statutory boards (Transport Corporation and Electricity Board) doesn't seem to have changed their loss-making character in a significant way. In fact, the situation seems to have worsened in the case of the biggest loss-contributing entity, the road transport corporation.

Table 19: Accumulated Losses (AL) as on 31 st March 2019 (Rs in Crore)		
Name of Enterprise	AL	%
Kerala State Road Transport Corporation (C)*	10955	41.7
Kerala State Electricity Board Ltd (C)*	5261	20.0
Kerala Water Authority (SB)	4633	17.6
Kerala State Cashew Devpt Corpn Ltd (C)	1280	4.9
Kerala State Civil Supplies Corpn Ltd (C)	724	2.8
Kerala State Housing Board (SB)	643	2.4
Total of the above	23496	89.4
Total AL of all Public Enterprises	26274	100.0
Note: *These were statutory boards until they were compelled to convert into companies by central government directives arising out of economic reform measures. C means Company and SB means Statutory Board.		

Spectacular Failure 4

Loss of public resources through exorbitant time and cost overruns in economic infrastructure

While the first failure in effectively checking the unemployment problem, especially among the expanding segment of educated persons, is rooted in both internal and external factors, the remaining three that we highlight here are mainly due to factors internal to the governance by the successive state governments. In this section what we therefore highlight is the loss of precious time as well as scarce resources in the implementation of public projects. We take two examples to highlight the issue. One relates to the time and cost overruns in the completion of electricity generation projects and the other relates to that of irrigation projects. Needless to say, both are critical factors in the journey of economic development of poor agrarian economies.

Power Projects

A detailed study on the issue of time and cost overruns of 20 power projects in Kerala was undertaken by this author jointly with another colleague as part of a larger study on the power sector (Kannan and Pillai 2002)²⁷. The findings of this study are shocking given the repeated experiences of time and cost overruns. The causes for delays in time as well as several upward revisions in capital costs are several such as changes in the technical design and feasibility reports, inadequate or incomplete data and unrealistic assumptions in original cost estimates, inefficient management, inadequate scientific and technical investigations (such as in geological characteristics) before preparing the feasibility reports, vague and ambiguous specifications and conditions of contract, sluggish decision-making at various stages of construction, unavailability of materials or lack of transport, infighting and ego clashes among different groups of the bureaucracy and technocracy of Kerala State Electricity Board, unwanted transfer of planning and supervisory staff between projects during their construction, lack of vision about the power needs of the State, labour disputes, court interventions for aggrieved contractors, and so on. These causes have been analysed in some detail along with an enquiry into the political economy issues²⁸.

The study covered all the power projects completed up to the year 2000. There were wide variations in both time and cost over-runs. Time over-runs (in the sense of additional time taken) ranged from 63 percent (i.e., 0.63 times) to 500 percent (i.e., 5 times) whereas cost over-runs (in the sense of additional costs incurred) ranged from 64 percent (i.e., 0.64 times) to 777 percent (i.e., 7.8 times). The project-wise details are given in Table 20.

How much is the total loss due to cost overruns? This is a question an informed citizen is likely to ask. There are technical issues in aggregating the cost overruns since the projects are undertaken in different time-points with a positive rate of inflation that makes aggregation at historical prices less meaningful²⁹. The projects also vary in their size as well. By sticking to the historical cost data, the average To (i.e., number of years originally estimated) for the 20 projects works out to 5.15 whereas the Ta (i.e., number of years actually taken for completion) works out to 13.5 thus giving a ratio of 2.62. Similarly, the ratio between Co (i.e., capital cost originally estimated) and Ca (i.e., capital cost actually incurred) works out to 3.78. That is to say the cost overrun was 278 percent higher than the original estimate whereas the time overrun was 162 percent higher than what was originally planned. we have calculated the capital cost per unit of energy potential and computed

²⁷ See Chapter 5 of this study. A separate article was also published in Pillai and Kannan 2002.

²⁸ See Chapter 10.

²⁹ A cash flow of capital expenditure is hard to get from published documents except some information on revised cost estimates for some years.

a capital waste factor in terms of how many say, Kakkad-type projects could have been built with this excess capital cost incurred. Alternatively, one may also see this as resources lost for capital formation in general.

In order to capture the combined effect of time as well as capital cost overruns, we had also calculated what may be called a Resource (Time-cum-Cost) Waste Factor (RWF) (see Morris 1990) that is obtained as the difference between the actual capital x time (CaxTa) and the originally planned capital x time (CoxTo) measure as a percentage of the latter (where CaxTa are the actual and originally planned estimates of capital cost and Ta and To are the corresponding period of commissioning. In estimating this resource waste factor, the implicit assumption is that the expenditure over the course of the project takes place uniformly. Thus, in the case of Kakkad project, the originally planned resources were Rs.18.6 crore x 10 years = Rs. 186 crore years. but the actual resources spent were Rs. 153.52 crore x 23 years = Rs. 3,3530.96 crore years, resulting in an RWF of Rs.3,344.96 crore years or 1,798 percent (i.e., 17.98 times or close to 18 times) of the originally planned resources. Thus, it shows that as a result of time and cost over runs, this project has eaten up about 18 times more capital and time combined than what was originally planned. In other words, if the Kakkad project had been completed as planned, the Kerala State Electricity Board could have built another 18 Kakkad-type projects!

Table 20: Cost Escalation of Power Projects (as in 1999–2000)				
Name of the Project	Time Overrun		Cost Overrun	
	To/Ta (Years)	(%)	Co/Ca (Rs Crore)	(%)
Idukki II Stage	8/16	100	31.68/68.00	114.65
Idukki III Stage	6/16	167	4.10/15.11	268.54
Sabarigiri Augmentation	8/18	125	1.28/11.22	776.56
Idamalayar	8/17	113	23.40/90.03	284.74
Kakkad	10/23	130	18.60/153.52	725.38
Kallada	8/19	63	11.80/18.02	52.71
Lower Periyar	8/14	75	88.43/353.04	299.23
Malampuzha	2/12	500	2.95/6.79	130.17
Mattupetty	2/11	450	2.92/4.78	63.7
Malankara	3/12	300	7.80/41.13	427.31
Chimony	3/12	300	3.14/4.25	35.35*
Peppara	3/9	200	3.92/6.81	73.72
Pooyankutty	6/21	250	250.00/820.00	228
Azhutha Diversion	5/11	120	2.90/14.46	398.62
Poringalkuth LB Extn	4/10	150	9.02/42.73	373.73
Kuttiady Diversion	3/12	300	2.14/9.49	343.46
Vadakkepuzha Diversn	3/12	300	1.31/5.14	292.37
Vazhikkadavu Diversion	4/12	200	1.86/15.99	759.68
Kuttiady Tail Race	4/11	175	3.97/12.92	225.44
Kuttiady Extension	4/8	100	30.73/198.00	544.32
Note: To = Number of years originally estimated; Ta = number of years actually taken for completion; Co = Original capital cost; Ca = actual capital cost incurred. Source: Kannan and Pillai 2002: 186.				

Apart from the loss of time as well as financial resources in capital construction, there is an additional loss in the form of loss of revenue from the electricity during the time overrun period. This has been calculated for the period 1983-84 to 1999-2000 that works out to Rs. 886.3 crore as on 2000 or Rs. 52 crore per year in terms of historical prices. This of course is derived by adding up the losses

over the years. Viewed from present value terms, this does not take into account the inflation and consequent depreciation in the value of the rupee.

Irrigation Projects

Another mind-blowing example of exorbitant loss of public resources is the case of constructing and commissioning irrigation projects. Unlike the power projects the accessibility and availability of relevant statistics have been quite challenging. For example, while data on the start of the projects have been reported, very little is known about the original estimate of the year of completion so as to find out the time overruns. The final costs of completed projects are often not available. What is available is the latest revision of capital costs that could be lower than the actual final cost. The data are supplied by the Department of Irrigation to the State Planning Board who is charged with preparing the annual Economic Review of the Kerala economy for tabling in the State Legislative Assembly before the presentation of the annual budget.

Table 21 gives a picture of the time and cost overruns of the completed projects for which we have managed to get the required data. The worst performer is the Kallada Project (in Kollam district) with the highest time overrun as well as the cost overrun. It took 43 years to complete instead of the originally estimated six years that meant a time overrun of 617 percent or 6.17 times. The cost overrun has been truly mind blowing that involved 5359 percent or 53.6 times more expenditure than what was originally estimated. Next in line in terms of cost overrun is the Muvattupuzha irrigation project with almost 45 times more expenditure than the original estimate and a time overrun 557 percent or 5.57 times more than the original estimate. What is interesting to note is that projects started before the formation of the State of Kerala reported a shorter time as well as cost overrun than those started after. What is expected is that the experience in implementing projects in earlier times becomes lessons for drawing up projects such that the newer project reports are in a position to anticipate various hurdles especially of a technical and organisational nature that are internal to the implementing agency.

There is then the question of inflation due to price rise in materials as well as wages and salaries. These are supposed to be factored in the original estimates but then limited to the estimated time for completion of the project. When time delays occur, then the subsequent revision of the capital costs will have to factor the inflation rate. Further time delays then call for further revisions both due to inflation as well as other factors. Therefore, the inefficiency in completing the projects on time leads to further cost escalation. Correcting technical and organisational flaws further contributes to this cycle of revisions in the capital costs of the projects.

The comparison of projects in terms of time and cost overruns gives an idea of those that have caused less drain on the public exchequer than those that caused more. However, it would be interesting to combine the time and cost factor, as we have done for the power projects, and see the combined effect in terms of the Resource Waste Factor. The results of this exercise are also presented in Table 20.

Then there is the serious issue of projects that are reported as ‘ongoing’ or suspended or abandoned due to a variety of reasons. The capital expenditure on these projects is now in the category of ‘sunk costs or costs that cannot be recovered’ in any way and hence a waste of resources. The reasons for such enormous delays in completing such critical infrastructure projects might have been subjected to internal scrutiny although not much published materials are available. However, in recent times there has been an attempt to examine the cases of four large irrigation projects that have

been in the ‘ongoing’ category for far too long. A committee was formed in 2017 and a report was submitted in 2018. It would appear that as a result of the recommendations one of the projects was completed by 2020 but the fate of the other three are not known. The findings of this committee are worth noting that includes the brazen technical flaws in the design and construction of such seemingly not so complex systems such as canals (see Government of Kerala 2018)³⁰. It also points to the poor technical capability of the concerned government department.

In sum, the record of project implementation in major and medium irrigation and power projects in Kerala is one of huge loss of public resources as well as loss of time. Over time the fiscal situation of the Government of Kerala became precarious with persistent revenue deficits since 1983-84 and fiscal deficits from 1995-96 to the present without any break. This has meant considerably reduced capital expenditure including in these two critical sectors.

Table 21: Time and Cost Overruns of Irrigation Projects

Sl. No.	Name of Irrigation projects	Year of Start/Finish	T(o)/T (a)	Time Over-run (%)	C(o) (Rs Crore)	C(a) (Rs Crore)	Cost overrun (%)	Resource Waste Factor (%)
1	2	3	4	5	6	7	8	9
1	Kallada	1961/2004	6/43	617	13.28	725.00	5359	391
2	Muvattupuzha	1974/2020	7/46	557	20.86	958.00	4493	302
3	Kanjirapuzha	1961/1995	7/34	386	3.65	140.00	3736	186
4	Pazhassi	1961/1992	6/31	417	4.42	150.00	3294	175
5	Chitturpuzha	1963/1992	4/29	625	1.06	25.70	2325	175
6	Periyar Valley	1956/1994	6/38	533	3.48	83.51	2300	152
7	Pampa	1961/1992	6/31	417	3.83	58.98	1440	80
8	Chamravattom	1985/2012	7/27	286	8.70	120.00	1279	53
9	Kuttiady	1962/1993	6/31	417	4.96	50.73	923	53
10	Chimoni-Mupli	1976/1996	6/20	233	6.33@	59.58	841	31
11	Mangalam (PC1956)	1953/1966	4/13	225	0.45	1.06	136	8
12	Neyyar (PC1959)	1951/1973	4/14	250	2.48	4.61	86	7
13	Malampuzha (PC1955)	1949/1966	6/17	183	3.88	5.80	49	4
14	Walayar (PC1956)	1953/1964	4/11	175	0.92	1.32	43	4
15	Thrithala	1998/2007	4/9	125	19.00	26.60	40	3

Note: PC means Partially Commissioned. C(o) and T(o) indicate original cost and time estimate while C(a) and T(a) indicate actual cost and time taken to complete the project. Some of the final cost figures are the latest available revised cost estimates and hence the possibility of the actual cost could be higher. Resource Waste Factor = $[C(o) \times T(o) / C(a) \times T(a)] \times 100$.

³⁰ In a rare move to examine the status of long-pending irrigation projects with considerable time and cost overruns, the State Planning Board constituted a Technical Committee on the Ongoing Major and Medium Irrigation Projects in Kerala on 16 May 2017. Its report was submitted on 9 August 2008. The Committee focused mainly on the inordinate delay in the completion of four major projects that were still in the process of construction varying from 36 to 43 years as on 2017. Only one project i.e., Muvattupuzha Irrigation Project started in 1974 is reported to be completed arising out of the recommendations of this Committee. Although the report has not delved into all the details of the sources and forces that are responsible for the massive delays, it is worth reading to understand some of the technical and institutional aspects of delays in project implementation. In its concluding chapter, the Committee stated: “In all the projects we examined, one general drawback noticed was the poor quality of technical investigations that preceded the preparation of project proposals. These drawbacks were visible to us in terms of, among other things, the fixation of canal alignments and the accurate conduct of hydraulic investigations. What we need is the creation of a team/teams within the Irrigation Department that is/are professional and technically accurate in preparing designs and conducting field investigations. The existing IDRB [Irrigation Design and Research Board] has not been felt to us as such a professional and technically updated entity” (Government of Kerala 2018: 45).

In Lieu of Conclusion

Our assessment of the performance of the Kerala economy since its formation covering a period of six decades show a mixed performance in the background of its famed ‘model’ called KMD. What we have been able to bring out is the positive link between investment and attainment in human development that ultimately resulted in high economic growth despite the poor performance of the commodity-producing sectors of agriculture and industry. We have quantified the contribution of human development that worked through a demographic transition and found that it is not an insignificant one. Further it is the same human development that worked through emigration of large numbers of predominantly men that ignited and sustained a high economic growth in the Second Phase through remittances and its consequent multiplier effects. But this has resulted in a further lop-sidedness of the Kerala economy dominated by the service sector.

While such a growth process also resulted in a structural transformation of Kerala’s economy, much earlier than the national economy, it has resulted in heightening the inter-sectoral inequality. However, despite the impressive increase in per capita income along with a high human development record, Kerala continues to face the problem of unemployment with a significant underutilization of labour of both educated and less educated working age population. The main burden of the educated unemployment has fallen on women adding to the problem of gender unfreedom. The state’s ability to tackle this basic problem of unemployment and enhance capital expenditure has been thwarted by a declining revenue collection efficiency leading to borrowing to meet both revenue and capital account deficits. Besides the state has also failed to generate any surplus from its public sector enterprises and thus having to carry the burden of its losses. In addition, the state’s record in project implementation has been a deeply disappointing one leading to waste of scarce public resources as well as time.

The overall picture emerging from this assessment is therefore one of spectacular successes in human development along with a spectacular failure on the part of the state government in managing the public finance and delivering economic services.

Associated with these failures rooted in ‘state failure’ in economic management, there are important issues that are debated in Kerala’s public sphere. One is the low representation of women in constitutional bodies as well as in the political and civil society organisations despite their attaining high levels of human development. The other is the continuing challenges of economic development of the socially most disadvantaged sections belonging to Scheduled Castes and Tribes that raises important issues of ‘social inclusion’. The foundational issue of economic inequality is also gaining attention especially from scholars who have noted its increasing trend since the beginning of neoliberal economic reforms in the country (see, e.g., Subrahmanian and Prasad 2008; Oommen 2014; and Kannan and Hari 2020). While increasing economic inequality need not be an off-shoot of the KMD, proactive state policies could have moderated it with effective public policies especially in generating gainful employment to the underutilized labour. However, given the ‘state failure’ in public finance and public investment management that we discussed, there was very little scope for such a proactive role. These issues certainly merit more investigation and attention.

The time has therefore come for Kerala to re-examine its governance system and rise to the challenges posed by a society with high human development that has consequentially generated high aspirations especially among the younger generation. Two external shocks have also made it imperative for a re-examination. One is the Great Floods of 2018 and its devastating impact on its ecology calling for a conscious adoption of environmental sustainability as a framework for future development (see Kannan 2019). The other is the Covid-19 induced pandemic that has affected the

country as a whole – along with many other countries – forcing a rethink on the neoliberal economic policies of unfettered liberalization and globalization. In that sense the sixty-year period that we have examined here with two major phases has come to an end with a structural break in the growth process³¹. For the first time since 1987, Kerala registered a negative economic growth (of more than nine percent) in 2020-21. It has also thrown up new challenges in the form of coping with the emerging market for work and employment. It will also strengthen the need for a reformed or new perspective on the future course of development.

The examination and analysis of the six decades of the KMD here is anchored on an economic development perspective in which we have flagged the role of the public sphere in the making of such a process of development. Given the highly contested nature of political parties and their broad grouping into two coalitions so far, a political economy understanding of Kerala's development is likely to be of value in its future possibilities of correcting the lop-sidedness in its current developmental scenario. This is a task that I intend to pay attention to.

³¹ According to the Economic Survey 2021 published by the Kerala State Planning Board, Kerala's NSDP at constant prices declined to +2.09 during 2019-20 and -9.43 during 2020-21 (Vol.1, page 4).

Appendix Tables

Table A1: Sub sectoral Growth (Exponential) rate in Kerala (Based on NSDP 1999-00 prices)

Sector	Kerala/ India	P1	P2	Phase1	P3	P4	Phase2	WP
		1960-61 to 1974-75	1975-76 to 1986-87	1960-61 to 1986-87	1987-88 to 1998-99	1999-00 to 2019-20	1987-88 to 2019-20	(1960-61 to 2019-20)
Real Estate, OD & BS	Kerala	-0.81	5.00	9.64	3.35	8.62	15.92	8.16
	India	2.63	7.57	4.10	7.15	8.47	7.55	6.81
Transport, S & C	Kerala	6.05	-1.01	4.00	4.63	10.54	10.79	7.44
	India	5.72	5.87	5.99	6.24	9.81	9.68	7.66
Banking and Insurance	Kerala	7.75	9.05	9.01	5.73	9.97	9.08	8.58
	India	5.54	7.86	6.82	9.56	10.26	9.79	8.85
Construction	Kerala	4.81	16.08	8.55	5.25	7.35	8.17	8.14
	India	7.25	5.58	6.57	8.29	6.52	6.57	5.06
Mining and quarrying	Kerala	-5.60	2.54	1.45	4.57	4.25	7.86	6.44
	India	2.91	5.37	3.88	4.78	3.29	3.75	4.46
Trade, H & R	Kerala	5.41	3.56	4.00	11.38	5.95	7.80	6.20
	India	3.83	4.85	4.36	7.2	8.15	7.95	6.31
Electricity, G & WS	Kerala	9.16	-10.87	3.81	11.19	2.14	5.93	4.60
	India	3.95	2.85	3.38	4.88	4.48	5.34	6.43
Public Administration	Kerala	4.99	5.32	4.75	2.29	6.19	5.89	5.55
	India	6.35	5.79	5.63	4.75	6.18	6.11	5.88
Forestry and Logging	Kerala	4.07	1.71	5.63	19.64	0.94	4.78	4.61
	India	2.67	-0.20	0.44	0.77	2.25	1.85	0.77
Manufacturing	Kerala	4.45	1.13	3.43	2.71	6.30	3.84	3.47
	India	3.89	4.45	4.09	5.90	7.72	6.65	5.40
Fishing	Kerala	13.51	-4.02	6.11	7.75	0.27	1.73	4.04
	India	3.85	3.37	3.88	6.02	4.75	4.06	4.09
Agriculture	Kerala	2.58	-0.92	0.50	3.09	-0.14	-0.04	0.45
	India	1.79	2.59	2.33	3.47	3.03	2.92	2.80
Other Services	Kerala	5.13	-1.51	2.74	4.47	7.45	7.54	4.78
	India	3.41	3.83	3.25	6.1	6.65	6.57	5.24

Note: P1 to P4 indicate Periods. WP stands for Whole Period. OD & BS means Ownership of Dwellings and Business Services; G & WS means Gas and Water Supply; S & C means Storage and Communication; H & R means Hotels and Restaurants.

Table A2: Progress in selected indicators of human development in Kerala and India						
	Region	Period 1	Period 2	Period 3	Period 4	
A. Population	Year	1960-61	1975-76	1987-88	1999-00	2018-19
Population Density/SqKm ¹	Kerala	435	600	749	819	874
	India	135	185	255	313	407
Females/1000 Males ¹	Kerala	1022	1032	1036	1058	1102
	India	941	934	927	933	946
Urban population (%) ¹	Kerala	15	19	26	26	48
	India	18	22	26	28	34
% of SC and ST in popn ¹	Kerala	9.7	11.0	11.0	12.3	12.9
	India	21.6	23.5	24.6	28.3	29.8
B. Life Expectancy	Year		1981-85	1992-96	2004	2018
Life Expectancy (Male)	Kerala		65.4	70.2	71.4	72.5
	India		55.4	60.1	62.6	68.2
Life Expectancy (Female)	Kerala		71.5	75.8	76.3	77.8
	India		55.7	61.4	64.2	70.7
C. Literacy	Year	1961	1981	1991	2001	2020
Male literacy rate	Kerala	55	75	94	94	97
	India	40	56	64	75	85
Female literacy rate	Kerala	39	66	86	88	94
	India	15	30	39	54	71
D. Average years of schooling	Year		1983	1993-94	1999-00	2018-19
Adults 15-59 years: Urban	Kerala		6.8	7.9	8.5	11.1
	India		5.8	6.9	7.5	9.7
Adults 15-59 years: Rural	Kerala		5.6	7.0	7.4	10.4
	India		2.3	3.2	3.7	6.9
Adults 15-39 years: Urban	Kerala		7.4	8.6	9.2	12.3
	India		6.4	7.3	7.8	10.5
Adults 15-39 years: Rural	Kerala		6.3	7.8	8.4	11.8
	India		2.8	3.7	4.3	8.3
Source: Figures for A based on CSO projections for annual population; For B from Government of India (2002) and Institute for Applied Manpower Research (2011); For C from Census Reports with 2020 from PLFS 2020-21; For D computed from NSS Rounds on Employment and Unemployment for 1983, 193-94 and 1999-00 and PLFS 20181-19.						

Table A3: Comparative performance of Kerala in selected Human Development indicators during the Second Phase						
	Period 3		Period 4			
Indicator	1998-99		2005-06		2015-16	
	Kerala	India	Kerala	India	Kerala	India
CHILDREN BELOW 5 YEARS						
Infant Mortality Rate (IMR)	16.3(1)	67.6	15.3 (1)	57.0	5.6 (1)	40.7
Under 5 Mortality Rate (U5MR)	18.8 (1)	94.9	16.3 (1)	74.3	7.1 (1)	49.7
Nutritional status of children						
Height for age (% below -2SD) U5C (Stunted)	21.9 (1)	45.5	24.5 (1)	48.0	19.7 (1)	38.4
Weight for height (% < -2SD) U5C (Wasted)	11.1 (3)	15.5	15.9 (5)	19.8	15.7 (4)	21.0
Weight for age (% < -2SD) U5C (Underweight)	26.9 (1)	47.0	22.9 (1)	42.5	16.1 (1)	35.7
Any Anemia (%) (6-59 months)			44.5 (1)	69.5	35.7 (1)	58.5
Severe anemia			0.5 (1)	2.9	0.4 (1)	1.6
IMR and U5MR for 1000 livebirths for the five years preceding the survey. As per WHO recommendation, the problem of wasting, stunting and undernourishment among children are best measured by the percentage of those with more than 2SD below the median.						
WOMEN ONLY (15-49 years)						
BMI: Height (% <145cm)	18.7 (3)	35.8	8.6 (9)	11.4	4.8 (4)	11.1
Any anaemia (%)	22.7 (1)	51.8	8.0 (1)	24.2	34.3 (1)	53.1
Severe anaemia (%)	0.5 (1)	1.9	0.5 (2)	1.8	0.3 (1)	1.0
TFR (No. of children per couple)	1.96 (1)	2.85	1.93 (1)	2.7	1.6 (1)	2.2
Women (18-29 yrs) married by age 18 (%)	17.0 ^a (1)	50.0 ^a	17.2 (3)	45.6	9.3 (2)	27.9
Physical or sexual violence on Women (15-49) any time (%)	10.2 ^b (3)	21.0 ^b	17.3 (4)	35.4	14.5 (4)	30.4
Currently employed (last 12 months)			27.9 (15)	36.3	17.3 (19)	24.0
Currently employed (Married Women 15-49))	25.0 (13)	39.2			21.9 (15)	30.6
Note: *a refers to age between 20-24. b refers to physical mistreatment since age 15 only.						
MEN ONLY (15-49 years)						
Any anaemia (%)			8.0 (1)	24.2	11.7 (1)	22.7
Severe anaemia			0.4 (1)	1.3	0.5 (3)	1.1
Men (21-29) married by age 21			2.0 (1)	26.6	2.4 (1)	17.4
Currently employed (last 12 months)			84.4 (9)	84.5	71.6 (16)	75.3
Currently employed (Married)			98.9 (13)	98.8	98.0 (14)	97.5
Note: Figures in bracket refers to Kerala’s rank among major states in India. Source: National Family Health Surveys.						

References

- Ahluwalia M S (2000): 'Economic Performance of States in Post-Reforms Period', *Economic and Political Weekly*, Vol 35, No 19, May 6.
- Centre for Development Studies (CDS) (1975), *Poverty, Unemployment and Development Policy: A case study of selected issues with reference to Kerala*, United Nations, New York.
- Chakraborty, Achin (2005), 'Kerala's Development Narratives', *Economic and Political Weekly*, Vol. 40, Issue No. 06, 05 February.
- Dreze, Jean and Amartya Sen (1991), *Hunger and Public Action*, Oxford University Press, 1991.
- Dreze, Jean (2017), *Sense and Solidarity*, Permanent Black, Ranikhet.
- Frankie, Richard and Barbara Chasin (xx), *Radical Reform as Development*
- Frankie, Richard and Barbara Chasin (1999), 'Is the Kerala Model Sustainable? Lessons from the Past: Prospects for the Future' in Oommen (1999).
- Government of India (2012), *Non-Profit Institutions in India: A Profile and Satellite Accounts in the framework of the System of National Accounts (including State-wise Comparison of Profiles)*, Central Statistical Office, New Delhi.
- Government of India (2002), *National Human Development Report 2001*, Planning Commission, New Delhi.
- Heller, Patrick (2000) *The Labor of Development: Workers and the Transformation of Capitalism in Kerala*, Cornell University Press, Ithaca.
- Institute of Applied Manpower Research, *India Human Development Report 2011: Towards Social Inclusion*, Oxford University Press, New Delhi.
- ILO (International Labour Organisation) (2009), *Beyond Unemployment: Measurement of Other Forms of Labour Underutilization*, Report of the Working Group on Labour Underutilization, ILO, Geneva.
- Isaac, Thomas, T.M. (1982), 'From Class Struggle to Class Compromise: Redistribution and Growth in a South Indian State', *Economic and Political Weekly*, Vol. XVII, No. 31.
- Isaac, Thomas, T.M. Paul van Stuijvenberg, and K. N. Nair (1992), *Modernisation and Employment: The Coir Industry in Kerala*, Sage Publishers, New Delhi.
- Jeffrey, Robin (1992), *Politics, Women and Wellbeing: How Kerala became 'a Model'*, Palgrave Macmillan, London.
- Jose, A. V. (2017) 'Changes in Wages and Earnings of Rural Labourers', *Economic and Political Weekly*, Vo.48, Nos.26-27, June 29.
- Kabanda, Patrick (2018), *The creative wealth of nations: can the arts advance development?* Cambridge University Press,
- Kabir, M. and T. N. Krishnan (1996), 'Social Intermediation and Health Change: Lessons from Kerala', Monica Das Gupta, Lincoln C. Chen and T. N. Krishnan (eds.), *Health, Poverty and Development in India*
- Kannan, K.P. (1995), 'Public Intervention and Poverty Alleviation: A Study of the Declining Incidence of Rural Poverty in Kerala, India', *Development and Change*, Vol.26, No.4, October.

Kannan, K.P. (1976), 'Kerala: Science for Social Revolution' in *Economic and Political Weekly*, June 26 pp. 943-44.

Kannan, K.P. (1978), 'Kerala: Science for the People' in *Economic and Political Weekly*, October 7. Pp. 1691-92.

Kannan, K.P. (1980), 'Evolution of unionisation and changes in labour processes under lower forms of capitalist production: A study of the cashew industry of Kerala', Das, Arvind N., V. Nilakant and P.S. Dubey (eds.) *The Worker and the Working Class: A Labour Studies Anthology*, Public Enterprises Centre for Continuing Education, New Delhi.

Kannan, K.P. (1981), 'A people's science movement' *Development*, No.1, Journal of the Society for International Development, Rome (pp. 37-40).

Kannan, K.P. and K. Pushpangadan (1988), 'Agricultural Stagnation in Kerala', Vol. 23, No. 39.

Kannan, K.P. and K. Pushpangadan (1988), 'Dissecting Agricultural Stagnation in Kerala: An Analysis across Crops, Seasons and Regions' in *Economic and Political Weekly*, September, Vol. XXV, No. 36.

Kannan, K. P. (1990), 'Kerala Economy at the Crossroads', *Economic and Political Weekly*, Vol. XXV, Nos. 35-36. September.

Kannan, K. P. (1998), 'Political Economy of Labour and Development in Kerala', *Economic and Political Weekly*, Vol. 33, Issue No. 52, December.

Kannan, K. P. and N. Vijayamohanan Pillai (2004), 'Public Action as Participatory Development: The Kerala Experience Re-interpreted', Arjun Sengupta, Archana Negi and Moushumi Basu (eds.) *Reflections on the Right to Development*, New Delhi: Centre for Development and Human Rights.

Kannan, K. P. (2015), *The New Panchayat Raj in Kerala: Reflections on its Institutionalization and Development Record*, Occasional Paper 4, Research Unit on Local Self Governments, Centre for Development Studies, Trivandrum.

Kannan, K. P. and G. Raveendran (2019), 'From Jobless to Job-loss Growth: Gainers and Losers during 2012-18', *Economic and Political Weekly*, 54 (44), November 9.

Kannan, K. P. (2019), 'The great Kerala Floods 2018' in *Seminar*, No.713, January.

Kannan, K. P. and K. S. Hari (2020), 'Revisiting Kerala's Gulf Connection: Half a Century of Emigration, Remittances and Their Macroeconomic Impact, 1972-2020' in *The Indian Journal of Labour Economics* (2020) 63:941-967.

Kurien, C. T. (1999), 'Sustainability of Kerala's Development Experience', in Oommen (1999).

Kurien, John (2000), 'The Kerala Model: Its Central Tendency and the Outlier', Govindan Parayil (ed.), London: Zed Books.

Liebowitz, S.; Margolis, Stephen (2000). *Encyclopaedia of Law and Economics*, p. 981.

Lindberg, Anna (2001), *Experience and Identity: A Historical Account of Class, Caste and Gender among the Cashew Workers of Kerala*

Mathew, George (1989), *Communal Road to Secular Kerala*, New Delhi: Concept Publishing.

Mencher, Joan (1980), 'The Lessons and Non-Lessons of Kerala: Agricultural Labourers and Poverty' *Economic and Political Weekly*, October, 1980.

- Menon, R.V. G. (2018), 'Fifty Years of a People's Science Movement', K. P. Kannan (ed.), *Kerala in Transition: Essays on Economy, Polity and Society*, Thiruvananthapuram: Centre of Science and Technology for Rural Development (COSTFORD) and Laurie Baker Centre for Habitat Studies.
- Nair, Gopinathan P. R. (1981) *Primary Education, Population Growth, and Socioeconomic Change: A Comparative Study with Particular Reference to Kerala*, Allied Publishers, New Delhi.
- Nair, K.N. (1990), 'Cattle Development in Kerala – Trends and Prospects' in *Economic and Political Weekly*, Vo.25, Nos. 35-36, September 1.
- Oommen, M.A. (1976), 'Rise and Growth of Banking in Kerala', *Social Scientist*, Vol.5, No.3, October.
- Oommen, M.A. (ed.) (1999), *Rethinking Development: Kerala's Development Experience*, Concept Publishing Company, New Delhi.
- Oommen, M.A. (2014), 'Growth, Inequality and Well-being: Revisiting Fifty Years of Kerala's Development Trajectory', *Journal of South Asian Development*, 9(2), August.
- Oxford Poverty and Human Development Initiative (OPHI) (2020), *Global MPI Country Briefing 2020: India (South Asia)*, Oxford Department of International Development, Queen Elizabeth House, University of Oxford.
- Panikar, P.G.K. and C. R. Soman (1986), *Health Status of Kerala: The Paradox of Economic Backwardness and Health Development*, Thiruvananthapuram: Centre for Development Studies.
- Parayil, Govindan (ed.) (2000), *Kerala: The Development Experience. Reflections on Sustainability and Replicability*, Zed Books, London.
- Pillai, Govindan P. (2003), 'Library Movement and Development Process in Kerala' in Nair, Raman R. (ed.) (2003), *Information Technology for Participatory Development*, Concept Publishing, New Delhi.
- Pushpangadan, K. (2003). "Remittances, Consumption and Economic Growth in Kerala: 1980-2000." Working Paper No. 343, Trivandrum: Centre for Development Studies.
- Pushpangadan, K. (2012), 'Analytics of Migration and Growth: Exploring Kerala's Economic Performance' in *Growth, Development and Diversity: India's Record Since Liberalisation*, edited by K. Pushpangadan and V.N. Balasubramanian, 1-22. New Delhi: Oxford University Press.
- Pushpangadan, K. and Murugan, G. (2019). International remittances and economic growth: A Dynamic Analysis, Gulati Institute of Finance and Taxation, Trivandrum, mimeo.
- Salam, Abdul and P. R. Gopinathan Nair (2002), *Educational Development in India: The Kerala Experience Since 1800*, Anmol Publications Private Ltd, New Delhi.
- Saradamoni (1999), 'Kerala Model: Time for Rethinking' in Oommen (1999).
- Sen, Amartya (2001), *Development as Freedom*, Oxford University Press, New Delhi.
- Subrahmanian, K.K. and P. Mohanan Pillai, (1987), 'Kerala's Industrial Backwardness: An Exploration of Alternative Hypothesis', *Economic and Political Weekly*, Vol. 21, No. 14.
- Subrahmanian, K.K. (2003), *Regional Industrial Growth under Economic Liberalization: A Case Study of Selected Issues with Reference to Kerala State*, New Delhi: Manak Publications.

Subrahmanian, K.K. and Syam Prasad, *Rising inequality with high growth: Isn't this trend worrisome? Analysis of Kerala experience*, Centre for Development Studies, Working Paper No. 401, June.

Tharamangalam, Joseph (1983), *Agrarian Class Conflict: The Political Mobilization of Agricultural Labourers in Kuttanad, South India*, UBC Press, Vancouver.

Tharamangalam, Joseph (1998), 'The perils of social development without economic growth: The development debacle of Kerala, India' in *Bulletin of Concerned Asian Scholars*, 30:1.

Thampi, M. M. (1990), 'Wage-Cost and Kerala's Industrial Stagnation: Study of Organised Small-Scale Sector', *Economic and Political Weekly*, September, Vol. XXV, No. 37.

Tornquist, Olle and P.K. Michael Tharakan (1996a), 'Democratisation and Attempts to Renew the Radical Political Development Project: Case of Kerala' (in three parts) in *Economic and Political Weekly*, 13, 20, and 27 July.

Stack, Martin; Gartland, Myles (2003). "Path Creation, Path Dependency, and Alternative Theories of the Firm". *Journal of Economic Issues*. 37 (2): 487.

Mathew Zachariah and R. Sooryamoorthy, *Science in Participatory Development: The Achievements and Dilemmas of a Development Movement: The Case of Kerala* (London and Atlantic Highlands, N.J.: Zed Books, 1994).

Zachariah, K. C. et. Al. (1994), *Demographic transition in Kerala in the 1980s*, Monograph Series, Trivandrum: Centre for Development Studies.



Centre for Development Studies
Prasanth Nagar,
Medical College.P.O, Ulloor,
Thiruvananthapuram - 695011
Kerala, India
Phone: +91 471 2774200
www.cds.edu