

# STATE FINANCES OF KERALA

PERFORMANCE, CHALLENGES AND THE WAY AHEAD

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# **Executive Summary**

## **Background**

Maintenance of fiscal discipline by state government is of paramount importance not only from the point of view of macroeconomic stability but also to ensure adequate funding of essential social and economic services as well as building the foundations for long term economic growth. However the fiscal anatomy of the states in India are plagued by numerous structural deficiencies such as high budgetary deficits and debt, unhealthy expenditure pattern, limited resource base and adoption of populist fiscal measures.

Kerala is no exception to this trend and its public finances suffers from continued high levels of fiscal and revenue deficits, low levels of public spending on capital works, utilisation of borrowed funds more to fund revenue expenditure, mounting debt liabilities, higher interest payment burden and falling own revenue mobilisation efforts. In this context, the objectives of the present study are three-fold: (a) to examine the extent and causes of fiscal stress of Kerala, (b) to identify the necessary policy initiatives to overcome the fiscal stress of Kerala, in particular, the mounting revenue and fiscal deficits, (c) to identify the best fiscal management practices and policies of selected other states and draw lessons for Kerala wherever applicable. Kerala is widely known for its high human development indicators but has also shown remarkable economic growth in the period since 2002-03. Our analysis shows that this economic progress has not been associated with improvement in the public finances of the state.

## **Results of analysis**

We find that Kerala's Debt-GDP ratio is the third highest among the comparable states (after Andhra Pradesh and Rajasthan) in the third phase of accelerated growth (2002-03 to 2016-17). Although the debt ratio has been coming down over the years, it is currently at

27.36 per cent that is considerably higher than the 13 other major states of India for whom the average figure stands at 23 per cent.

One of the major consequences of having a high debt ratio is the outflow in terms of interest payments. Kerala's Interest payments to Revenue receipts ratio in the recent period is the next highest only to Gujarat. Although Kerala's IP/RR has been coming down but is still considerably higher than the average figure for 13 major states of India.

Kerala's gross fiscal deficit is not too high compared with other states but what is of more serious concern is the quality of the deficit. In fact the major states on an average show a revenue balance in 2016-17 while Kerala's revenue deficit remains rather high at 1.50 per cent. The share of provident funds in Kerala's outstanding liabilities is more than twice that of the average for 13 major states.

A lion's share of public expenditure in Kerala consists of current expenditure. However, starting from the second half of the last decade, the share of public expenditure on capital asset creation has increased notably. The key reason for the higher share of revenue expenditure in Kerala has been the larger expenditure commitment on salaries and pensions and interest payments. Significantly, as percentage of revenue expenditure, at present Kerala has highest salary and pension burden among the comparable states.

As percentage of state GDP, the total expenditure on social and economic services has declined significantly in Kerala over time, including during the phase of high economic growth from 2002-03. However in Kerala, contrary to the trends in the comparable states, the expenditure on capital formation in the crucial social services has declined both during moderate and accelerated economic growth phases.

As percentage of GSDP the total expenditure incurred by Kerala on several social and economic services namely education, public health, housing, agriculture and allied activities,

irrigation, and industry and minerals has declined during the phase of accelerated economic growth. As regards the expenditure on capital formation in these individual heads, it has declined during the phase of accelerated economic growth in Kerala.

Coming to revenue performance, the total revenue receipts of Kerala experienced a declining trend as percentage of state GSDP since 1985-85. However, from mid-2000s the revenue mobilisation improved owing to better utilisation of own non-tax revenue sources. All the components of revenue receipts namely own tax revenues, own non-tax revenues and central transfers have declined significantly as percentage of GSDP during the accelerated economic growth phase since 2002-03.

An analysis of composition of Kerala's own tax revenue reveals that only a handful number of tax handles contribute to public revenue mobilisation in the state meaningfully. They include sales tax/value added tax, state excise duties, motor vehicle tax, and stamps and registration fees. However, the huge drop in the share of state excise duties and stamps and registration fees in the own tax revenues over the years and in the recent past respectively is a serious cause for concern.

All major own tax revenue sources namely sales tax/VAT, state excise duties and motor vehicle tax grew at a lower rate in Kerala during the phase of accelerated economic growth compared with the phase of economic stagnation. Moreover, the buoyancy of own tax revenue was lower than the desired level in Kerala during the phase of economic stagnation as well as the phase of accelerated economic growth.

Regarding non-tax revenue mobilization, the major concerns facing Kerala are negligible contribution by way of dividends and profits from state public sector enterprises and consistently falling contribution from economic and social services.

## **Policy recommendations**

- 1) There is an urgent need for increasing the share of capital expenditure and outlay in the total expenditure, including in the social sector.
- 2) To finance meaningful programmes which contribute to capital formation in the state, the government needs to identify “fiscal space” through a combination of cut in expenditure on ongoing or low-priority programmes, revenue increases and debt funds.
- 3) Within capital expenditure, focus must be on projects whose social benefits exceed their economic costs.
- 4) In order to reduce its salaries and pension burden, the government has to generate more jobs in the private sector by way of creating an appropriate environment. Also, the practice of appointing large number of temporary staff (also called contract employees) have to be discontinued. The government may put a freeze on recruitment except for essential services and explore outsourcing or contracting or public private partnership modes of functioning wherever possible. It may be prudent to raise the retirement age in the state.
- 5) Adopt performance budgeting, which involves setting goals for each government scheme, assessing how well particular schemes achieve them and terminating ineffective and low priority schemes in favour of better ones.
- 6) Adopt zero-based budgeting in which at the time of preparing annual budget each government programme would be viewed as *new* and therefore has to be justified by the concerned department for their continuity. Outcome budgets can be included in the annual budgetary exercise to link outlays with quantifiable deliverables or outcomes.
- 7) Programmes, say multiple social welfare programs, with similar nature could be identified and merged to curb outlays. This would also help in achieving economies of scale in expenditure.

- 8) The government can improve the control over expenditure through appropriate targeting of beneficiaries of various government social welfare programmes.
- 9) To avoid expenditure overruns, off-budget expenditures have to be controlled or minimized.
- 10) While designing or reviewing expenditure policy adequate emphasis must be given on operation and maintenance of government facilities created in the past.
- 11) Loan/credit guarantees extended by the government has to be based on proper assessment of cost-benefits associated with the projects and ranking of net present value of the projects. Also, it is desirable to limit loan guarantees only to creditworthy PSEs.
- 12) Privatization of public sector enterprises which are loss making and are operating in areas in which government has no comparative advantage can save substantial amount of public money that could be spend on other productive purposes.
- 13) A comprehensive review of pay and employment policy with respect to government employees has to be undertaken.
- 14) Subsidy programs have to be rationalised.
- 15) There is a serious need to strengthen own tax revenue mobilization in Kerala. In a state which has been witnessing faster economic growth and retains top position in per capita consumer expenditure, the decline in the growth of major own tax revenue sources namely sales tax/VAT, state excise duties and motor vehicle tax, stamps and registration fees and motor vehicle tax over the years has to be examined thoroughly and corrective actions have to be taken accordingly. For instance, revenue can be enhanced by way of rationalisation of tax/duty structure, use of technology, keeping accurate and updated registries of property values and improving property records by way of proper monitoring of property sales. The e-stamping facility followed in many

states such as Uttarakhand, Tamil Nadu and Karnataka can be introduced to prevent malpractices in land registrations.

- 16) Tax sources namely land revenue, urban immovable property tax, entertainment tax and taxes and duties on electricity have to be adequately tapped. Also new tax and non-tax sources with good revenue potential can be identified and taxed. The state must introduce a more prudent liquor policy which taxes premium brands at higher rates that will generate revenues not only from domestic high income consumers but also from tourists and business visitors. Mega sporting events can be organised in different parts of the state (e.g. football or volleyball which are popular sports among locals) leading to generation of economic activity and tourist inflow which in turn will generate tax and non-tax revenues (including collection of license fees from the organisers).
- 17) The secular decline in the contribution of excise duties in Kerala's own tax revenues demands a detailed analysis of excise revenue system of Kerala.
- 18) Serious efforts have to be taken to avoid/reduce tax evasion. This may be achieved with a tax system characterised by a broad base, low rates, limited exemptions, easy compliance and effective use of big data and technology. More use of technology is needed to check tax evasion. For instance, smart surveillance cameras at the state border roads and bye-routes to capture the goods vehicles which have not uploaded their invoices showing payment of integrated GST (IGST) to the GSTN portal. Big data on commercial (including property) transactions can be analysed to identify potential tax evasion and take necessary policy action.
- 19) Avoid granting tax amnesty to the tax payers.
- 20) Incentivising advance payments of VAT on the basis of annual turnover of the dealers can increase tax collection and compliance.

- 21) Engage the tax administrators to mobilise revenue from sources or lucrative tax payers that provide substantial revenue.
- 22) One useful way to prevent and reduce tax evasion would be to offer cash rewards to citizens for sharing information on tax evaders with the tax department.
- 23) Ensure that the government collects a fair share of the income or profits generated in the natural resource based industries such as granite mining operations.
- 24) Review, strengthen and update current tax administration with the goal of increasing efficiency, simplifying and improving compliance, thereby raising the additional revenues.
- 25) There is a serious need to enhance own non-tax revenues in Kerala particularly the dividends and profits from state PSEs and user charges from economic and social services. Potential sources of revenue in this sphere are raising tuition fees for public universities, penalties for violation of traffic rules, and admission fees for museums and public recreation facilities. There is considerable potential of collecting higher user fees (with premium pricing for foreign tourists) at several tourist destinations across the state (e.g. beaches, wildlife parks, heritage buildings, museums). Introducing online booking and digital payments for collecting user fees can reduce leakages and increase revenues.
- 26) Considering that revenue from the sale of state lotteries (general services) constitute a significant portion of Kerala's own non-tax revenue, efforts have to be made to consolidate and expand the gains from this revenue source e.g. e-lottery system (as in Arunachal Pradesh) or offshore casinos (as in Goa).

# 1 Introduction

Government finances influence economic development in several ways (World Bank, 1988). Firstly, government revenue, expenditures and budget deficit affect consumption, savings and investment and distribution of wealth and income in an economy. Secondly, fiscal policy has to be prudent to avoid balance of payments crises, external debt crisis and prolonged recession. Thirdly, size of fiscal deficits determines both the external (current account deficits, capital flight, and external debts) and internal (real interest rates, private investment, and inflation) macroeconomic imbalances. Fourthly, fiscal implications are important determinants of the success of measures such as financial liberalization, currency devaluation, price deregulation, and trade reform. Fifthly, the method of revenue mobilisation adopted by the government can substantially affect economic efficiency. For instance, reliance on ad hoc revenue mobilisation measures makes revenue systems complex and distortionary, thereby affecting economic progress. Finally, the quality of government expenditure represented by higher budgetary spending on productive capital investments can positively influence economic development of a country.

India has a federal form of government comprising central/national, state and local governments. Both central and state governments have expenditure responsibilities and revenue sources. Considering macroeconomic stability, scale economies and national importance, the following major functions are assigned to the centre: Currency, foreign exchange, insurance, stock exchanges, defence, external affairs, railways, posts and telecommunication, national highways, shipping and air transport, and atomic energy. The major functions assigned to the states are: public order, police, health, relief of the disabled and unemployed, agriculture, irrigation, land rights, fisheries, water supply/storage, trade and commerce within the state and cooperative societies. All other services that are not included

in centre and state lists are included in the Concurrent List.<sup>1</sup> The Indian Constitution also assigns tax powers to the centre and states separately to perform their functions. Progressive and broad-based taxes, taxes with inter-state base and taxes for which all-India uniformity in rates is desirable to facilitate industry/trade are generally vested with the centre while location-specific taxes and taxes related to local consumption are with the states.<sup>2</sup> The major state taxes are: taxes on the sale or purchase of goods (i.e., value added tax), motor vehicle tax, electricity duty, land revenue, excise on alcoholic liquors, opium, hemp and other narcotics, stamp duty, and registration fees.

In this framework of economic governance, maintenance of fiscal discipline at the state-level is significant due to the following three major reasons (See Ahluwalia 2000; Bagchi 2006; Gopinath 2009; Reddy 2007). First, to ensure India's macroeconomic stability, prudent fiscal management is needed both at the central and state government levels. Fiscal profligacy even at one layer of government may cause macroeconomic instability. Second, as per Constitutional assignment of expenditure/functional responsibilities between the centre and the states, the primary responsibility of funding essential social and economic services such as education, health, sanitation, agriculture, irrigation and transport is in the hands of the state governments. The importance of the states in the public expenditure management in India can be gauged from the fact that state governments contribute around 60 per cent of the total public expenditure incurred in India.<sup>3</sup> Therefore, it becomes important for the states to be financially sound enough to spend adequate amounts on human resources and physical infrastructure development of the country. Third, in order for India to achieve the goal of higher economic growth rate consistently over a longer period, all states need to grow to their full potential.

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<sup>1</sup> In the event of conflict relating to the functions specified in the Concurrent List, the centre has overriding powers (Article 246).

<sup>2</sup> The major central taxes are: taxes on income other than agricultural income, corporation tax, excise duty on manufactures (excluding alcoholic liquors etc.) and customs duty.

<sup>3</sup> Computed from *Indian Public Finance Statistics*, 2014-15

Since private sector investment, which is essential for economic growth, exhibit the tendency to flow to those states that manage to create an enabling business environment such as better law and order situation and the provision for adequate and quality physical and social infrastructure, it is imperative for the states to enhance public investment in such fields. Hence, it becomes essential for the states to keep their fiscal house in order.

However, state finances are one of the major ‘unreformed parts’ of the Indian economy even after two decades of economic liberalisation experience. The fiscal anatomy of the states continues to be plagued by numerous structural deficiencies. They include high budgetary deficits and debt, unhealthy expenditure pattern, limited resource base and adoption of populist fiscal measures. This is despite the initiation of a series of fiscal reform measures at the state-level aimed at achieving fiscal sustainability through restructuring of expenditure and tax policies (see Bagchi 2006; Gopinath 2009; World Bank 2005 and several other studies whose findings are summarised in Appendix 1).

The state of Kerala is no exception to this general trend. The fiscal edifice of Kerala has been diagnosed with several cracks (George and Krishnakumar 2012). They mainly include continued high levels of fiscal and revenue deficits, low levels of public spending on capital works, utilisation of borrowed funds more to fund revenue expenditure, mounting debt liabilities, higher interest payment burden and falling own revenue mobilisation efforts. To highlight the state's precarious financial situation, the state government has recently brought out a *White Paper on State Finance*, which warned that Kerala is heading for a financial crisis owing to a failure both on expenditure control and resource mobilisation. Such a situation calls for a detailed study on the fiscal management of Kerala and identification of corrective measures to keep the fiscal house in order.

In this context, the objectives of the present study are three-fold: (a) to examine the extent and causes of fiscal stress of Kerala, (b) to identify the necessary policy initiatives to overcome the fiscal stress of Kerala, in particular, the mounting revenue and fiscal deficits, (c) to identify the best fiscal management practices and policies of selected other states and draw lessons for Kerala wherever applicable. The rest of the report is organized as follows. Chapter 2 provides an overview of Kerala economy with emphasis on its growth and fiscal challenges. Chapter 3 presents the methodology, period of study, variables and data sources. Chapter 4 contains the analysis of fiscal imbalances based on a study of trends, sustainability indicators and estimation of a fiscal reaction function for Kerala. Chapter 5 discusses the composition, trends and quality of expenditure of Kerala government. Chapter 6 analyses revenue performance of Kerala. Chapter 7 summarises the findings, generates some future scenarios and provides recommendations to improve fiscal performance of Kerala.

## **2 Kerala Economy**

Kerala's economic status today is characterised by co-existence of high economic performance and high human development indicators. On the human development front, compared to all-India levels, Kerala has been characterised by low population growth, favourable sex ratio, high literacy levels (particularly female literacy), high life expectancy, high quality of health care, low infant mortality rate, low death rate, low fertility rate and low level of poverty (see Table 2.1). All these achievements were made possible due to the social welfare policies followed in the state, high level of public sector spending for social sector and large amounts of remittances received from Keralites working outside Kerala, particularly in the Middle Eastern countries.

On the economic front, even though Kerala economy was going through a phase of prolonged stagnation until the mid-1980s, but starting from 1987-88 to 2001-02 the state economy grew at a moderate growth. This was followed by a phase of accelerated economic growth from 2002-03 (GoK 2015). The gross state domestic product (GSDP) of Kerala grew at the average annual rate of 1.12 per cent between 1970-71 and 1986-87. On the other hand, during the period 1987-88 to 2001-02 and 2002-03 to 2014-15 the figures for the same were 5.84 per cent and 7.83 per cent respectively. Moreover, during the post-economic reforms period (1993-94 to 2013-14) as a whole, GSDP and per capita GSDP of Kerala grew at a higher rate of 6.62 per cent and 5.97 per cent respectively compared with the figures of 6.56 per cent and 5.08 per cent recorded for 21 major states of India. Kerala's economic growth is driven primarily by the following sectors: construction; transport, storage and communication; trade, hotel and restaurants; real estate; and business, legal and other communication services.

As regards the structure of the Kerala economy, the share of agriculture and allied services in state GSDP has declined from 30 per cent in 1990-91 to 10.6 per cent in 2010-11.

The growth rate of agriculture and allied sectors declined from 2.34 per cent in the 1990s to 0.46 per cent in the succeeding decade. Industrial sector accounts for 21 per cent of Kerala's GSDP, which is significantly lower than the national average of more than 28 per cent (GoK 2015). More disappointing is the lower share of manufacturing (10 per cent) in GSDP compared to the national average (16 per cent). A comparative analysis of Kerala with the top nine states of India reveals that Kerala lagged behind all of them in terms of the average share of industry during 2004–05 to 2009–10 (GoK, 2015). Another notable feature of the structure of industrial sector in Kerala is the disproportionately larger share of unregistered manufacturing in total manufacturing. Today, the services sector is the backbone of Kerala economy. The key segments within services sector contributing to the growth of the Kerala economy are transport, storage and communication; trade, hotels and restaurants; banking and insurance; real estate and legal services. 'Travel and tourism' has great economic significance for Kerala due to the state's clear comparative advantage in this sector and its capacity for income generation and job creation.

Over the years, Kerala economy has gradually emerged out of the situation of high social sector development with low economic growth though the higher economic growth was contributed predominantly by the services sector. Few other factors have contributed to this remarkable turnaround in Kerala's economic growth from 1987 onwards. They are high level of public spending on the social sectors; large flow of remittances, in particular after 1991, and the resulting consumption boom, and welfare role of social organisations. It is also important to note that during the accelerated economic growth phase, 77 per cent of growth was generated through services sectors.

Despite the rapid economic growth achieved since the beginning of the last decade, Kerala economy today faces several challenges (George 2011, GoK 2015). They include poor industrial development, lack of adequate private investment and physical infrastructure, high

unemployment rate among the educated<sup>4</sup>; high dependence on external economy (other states and countries); deteriorating public finances; growing number of elderly population; environmental degradation; falling productive capacity of economy; rising economic inequality; and challenges posed by rapid urbanization.<sup>5</sup>

It has been argued that the capacity of Kerala to address the above development challenges effectively and to sustain high economic growth performance depends crucially on the health of the public finances of the state (GoK 2006; 2015). First, in order for Kerala to sustain its high growth performance, it is imperative to maintain high levels of public expenditure on social sectors, public administration and welfare programme. However, this is possible only if the state's fiscal house is in order. Second, as noted above, Kerala has been facing several problems associated with the developed countries such as large and growing share of elderly population, higher level of educated unemployment, municipal waste management, and rapid environmental degradation. To tackle such problems the state needs to mobilise adequate public revenues and spend them efficiently. Third, due to mobility of private investments between the states in pursuit of better business environment, today business environment at the state level plays a very important role in attracting private investment (Ahluwalia 2000). Hence it is imperative that states mobilise adequate financial resources to shore up public investment in critical areas of socio and economic infrastructure. This is very important for Kerala because due to increased inter-state competition for private investment and weak physical infrastructure the inflow of private investment remains too small in the state. Fourth, in the light of the rapid economic growth experienced during the last decade and having attained the top position among states in terms of monthly per capita consumer expenditure

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<sup>4</sup>In 2011-12 (regular) unemployment rate in Kerala was 9.8 per cent of labour force against 3.8 per cent for all India.

<sup>5</sup>As per 2011 census, the percentage of urban population in Kerala was 47.72 per cent compared to 31.15 per cent for all India.

(MPCE)<sup>6</sup>, it may be argued that Kerala today has greater capacity to mobilise more public revenues than before and utilise the same for funding programmes aimed at addressing the state's development challenges.

**Table 2.1: Basic Social Indicators: Kerala Vs India**

	<b>Unit</b>	<b>Period</b>	<b>Kerala</b>	<b>India</b>
Population Growth	%	2001 to 2011	4.91	17.69
Population Density	Per sq. km.	2011	860	382
Sex Ratio	Females per 1000 of males	2011	1084	940
Literacy Rate	%	2011	94	74.04
Female Literacy Rate	%	2011	92.1	65.46
Average population served per Government Hospital bed	Nos	As on January 1, 2013	910	879
Total Fertility Rate	Children born/woman	2012	1.8	2.4
Infant Mortality Rate	Per 1000 live births	2010	13	47
Death Rate	For 1000 persons	2013	6.9	7
Poverty ratio*	% of persons	2011-12	7.1	21.9

\* - Based on Tendulkar's methodology

**Sources:**

- (i) India 2016 A Reference Annual, Publications Division, Ministry of Information and Broadcasting, GoI
- (ii) Selected Socio-Economic Statistics India, 2011
- (iii) National Rural Health Mission, Ministry of Health and Family Welfare, GoI ([http://nrhm.gov.in/nrhm-in-state/state-wise-information/kerala.html#health\\_profile](http://nrhm.gov.in/nrhm-in-state/state-wise-information/kerala.html#health_profile))

<sup>6</sup>Since the early 1980s Kerala has been among the top three Indian states in terms of MPCE (GoK 2015) and currently, as per National Sample Survey 68<sup>th</sup> round (2011-12), the state is ranked first in MPCE in the rural areas and second in the urban areas.

### **3 Methodology**

#### **Period of analysis and data**

The empirical analysis in the subsequent chapters covers the period 1980-81 to the present/latest available year. In this report we have divided the entire time period into three phases as per the economic growth trajectory of Kerala provided in the perspective plan of the Government of Kerala (GoK, 2015). The first phase is from 1980-81 to 1986-87 when Kerala economy was going through a phase of stagnation. The second phase starting from 1987-88 to 2001-02 is when the state economy grew at a moderate pace. This was followed by the third phase when the state witnessed accelerated economic growth from 2002-03 onwards. We analyse Kerala's fiscal performance over these three phases as well as compare Kerala's performance in these phases with other states that are selected such that they have experienced similar phases of growth as Kerala thereby providing us a basis for the inter-state comparison. This exercise led us to the following six states that show similar growth phases as identified for Kerala: Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Rajasthan and Tamil Nadu (see Table 3.1).

The study is based on secondary data sources such as Handbook of Statistics on State Government Finances, Reserve Bank of India (RBI); Annual studies of state finances published by the RBI; Official and Budget documents of the Kerala government and Handbook of Statistics on Indian Economy, RBI. We supplemented the data by consulting (wherever necessary) additional sources such as: Economic and Political Weekly Research Foundation, Centre for Monitoring Indian Economy's States of India.

## **Hypothesis**

We study whether Kerala's fiscal situation has deteriorated over the years compared to the average performance of the above named six comparison states as well as with respect to the average figures for thirteen other major states of India. We further investigate the causes of Kerala state's fiscal stress by separately analysing fiscal imbalances, expenditure and revenue performance. The thirteen other major states whose average figures we compare Kerala with are: Andhra Pradesh, Bihar (including Jharkhand), Gujarat, Haryana, Karnataka, Madhya Pradesh (including Chattisgarh), Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh (including Uttarakhand) and West Bengal.

## **Case studies**

We have compiled a list of fiscal reforms carried out by various states (including Kerala) over the past 5 years (see Appendix 2). We have conducted brief case studies of some of the relevant fiscal reforms and drawn lessons from them as part of the recommendations presented in Chapter 7.

## **Selection of study area**

The study focuses on Kerala state but also compares the state's performance with six other comparable states as well as with the average figures for thirteen major states of India.

## **Statistical tools and software**

In this report we have used trend analysis, ratio analysis, growth rates<sup>7</sup> and period averages to examine the trends in fiscal performance. We have also used advanced tests of debt sustainability (e.g. indicator analysis, Bohn's test) and revenue performance analysis (e.g. buoyancy estimates) including multi-variate time series analysis wherever applicable using

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<sup>7</sup> Growth rates are calculated using Compound Annual Growth Rate (CAGR) method i.e. based on a semi-log regression of the relevant variable on trend.

appropriate econometric software such as EViews and Stata. The empirical procedures are described in the relevant chapters that present the analysis.

<b>Table 3.1: State-wise Growth of GSDP</b>			
<b>State</b>	<b>Phase of economic stagnation: 1980-81 to 1986-87</b>	<b>Phase of moderate economic growth: 1987-88 to 2001-02</b>	<b>Phase of accelerated economic growth: 2002-03 to 2014-15</b>
Kerala	1.85	5.84	7.83
Andhra Pradesh	3.36	5.67	8.24
Gujarat	4.93	6.84	9.71
Karnataka	4.59	6.58	7.49
Maharashtra	4.28	6.80	8.71
Rajasthan	5.29	6.44	8.05
Tamil Nadu	4.89	6.30	9.16
<b>Source (Basic Data):</b> EPWRF India Time Series and Central Statistical Organisation			

## **4 Analysis of Fiscal Imbalances**

The key measure of fiscal imbalance in the case of India, including for the states, is the fiscal deficit. It is defined as the total expenditure of the government minus all non-borrowed receipts. It indicates the dependence of the government on borrowings and therefore the vulnerability of government finances. It is sometimes referred to as the public sector borrowing requirement (in national accounts). The fiscal deficit of states is financed through market borrowings, loans from the Centre, special securities issued to NSSF, small savings, loans from financial institutions, reserve funds, loans from RBI (ways & means advances, overdrafts) and other deposits and advances.

However it includes interest payments and hence does not truly reflect the current state of fiscal management. In order to assess the fiscal practices of the current period, it is important to study the primary deficit which is defined as the fiscal deficit excluding interest payments. The third key deficit indicator is the revenue deficit that indicates the deficit created by the government from its current activities. This is akin to government savings. Prudent fiscal management requires revenue deficit to be zero as the government should not be borrowing funds to finance its current or revenue expenditure. However a small amount of revenue or fiscal deficit may be tolerable under the argument that the government is borrowing to finance asset creation. But in the case of a worrisome debt situation, even the primary or fiscal balance may be required to show up as surplus. Therefore it becomes pertinent to examine whether the level of debt is sustainable or not.

We begin our analysis by reviewing the trends in debt and deficits of Kerala state and do a comparison with the 6 comparable states that experienced a similar growth trajectory as Kerala. We also compare Kerala's fiscal imbalances with the average figures for 13 major

states of India. Our analysis covers the period from 1980-81 till the latest period for which data was available.

## **Debt**

Figure 4.1 shows the debt-GDP ratio of Kerala alongside that of the comparison states for the three phases identified for temporal analysis. While the debt situation has been worsening for all the comparison states, Kerala's debt-GDP ratio is the third highest after Andhra Pradesh and Rajasthan. It is noteworthy that Kerala's neighbouring states of Tamil Nadu and Karnataka have been able to control their debt at around 20 per cent of GDP while Kerala's debt level at over 32 per cent of GDP is far above the 14<sup>th</sup> Finance Commission's recommended level of 25 per cent.

Figure 4.2 shows the debt-GDP ratio of Kerala in comparison with the average for 13 major states of India (other than Kerala). After peaking at 36.14 per cent at the turn of the millennium, the debt ratio has been coming down over the years even though it remains high at 27.36 per cent in the latest year of analysis. This remains above the 14<sup>th</sup> Finance Commission's recommended limit. Indeed the debt ratio was either lower or at par with the 13 major states in the previous decades but is currently (at 27.36 per cent) considerably higher than that of the other major states (at 23 per cent).

## **Interest payments**

One of the major consequences of having a high debt ratio is the outflow in terms of interest payments. The 14<sup>th</sup> Finance Commission recommended that interest payments should be less than or equal to 10 per cent of the revenue receipts in order to qualify for enhanced borrowing limit. Figures 4.3 and 4.4 show the interest payments as percentage of revenue receipts (IP/RR) for Kerala alongside that of the 6 comparison states and the average for 13

major states respectively. It is clear that Kerala's interest payments out of its current income has been rising across the three phases but so has been the case for most of the comparison states except for Karnataka. However Kerala's IP/RR in the third phase of growth (at 20.2 per cent) is the next highest only to Gujarat (20.8 per cent). Within the third phase, Kerala's IP/RR has been coming down (see Figure 4.4) but stands at 15 per cent in 2016-17 which is considerably higher than the average figure for 13 major states (12.7 per cent).

This phenomenon is of serious concern since Kerala, unlike some other states with high IP/RR such as Gujarat does not provide enough for capital expenditure to sustain this high level of interest payments. For instance, Gujarat's capital outlay as percentage of total expenditure is over 20 per cent for the last 5 years whereas it is only 7 per cent for Kerala. Therefore while Gujarat can look forward to generating higher growth and engendering greater revenues, Kerala may not be able to afford the rising interest burden. Finally, such high outflows on account of interest payments is bound to squeeze out the space for productive government spending over the next few years.

### **Key deficit indicators**

Table 4.1 shows the behaviour of gross fiscal deficit and revenue deficit (both expressed as percentages of GSDP) over the three phases alongside the figures for the comparisons states. Gross fiscal deficit has been the second highest next only to Rajasthan in the second and third phases. However, as Table 4.2 shows Kerala's gross fiscal deficit is not higher than that of 13 major states by a considerable margin. In 2016-17 the figure stands at 3.03 per cent which is slightly higher than the 3 per cent mandated by the 14<sup>th</sup> Finance Commission while 2.99 per cent is the average for the other states. But what is of more serious concern is the quality of the deficit that can be assessed by the revenue deficit. The revenue deficit for Kerala shot up in the

second phase along with the comparison states. However the comparison states managed to bring down their revenue deficit in the third phase of accelerated growth while Kerala's revenue deficit remained above 2 per cent during the same period. In fact the average figure for the major states indicates a revenue balance in 2016-17 while Kerala's revenue deficit remains rather high at 1.50 per cent. Clearly there is scope of much improvement in the quality of the state's finances.

### **Decomposition of Gross Fiscal Deficit**

Tables 4.3 and 4.4 show the decomposition of fiscal deficit into revenue deficit, capital outlays and net lending (all as percentages of GFD). From Table 4.3 it appears that capital outlays have dominated in the first phase for all the states but revenue deficit started gaining prominence in the second phase. However in the third phase all states except Kerala have tried to make course correction and increased the share of capital outlays in gross fiscal deficit. For Kerala this increase was only marginal from 32.4 per cent in the second phase to 34.7 per cent in the third phase whereas for all the other states except Maharashtra the increase was by 20-50 per cent. In fact for Karnataka the share of capital outlays is as high as 117 per cent in the third phase. Consider the comparison of Kerala with the average for 13 states shown in Table 4.4. In 2016-17, the share of capital outlays for Kerala was 47.86 per cent compared to 86.87 per cent for the average of 13 states. On the other hand the share of revenue deficit for Kerala was 49.48 per cent when the average for 13 states was -0.86 per cent. This lop sided composition of fiscal deficit can have serious consequences for capital formation in the state and its long term productivity and growth.

### **Revenue expenditure and receipts**

Further insights on the quality of finances can be obtained by examining the trends in revenue expenditure and revenue receipts as percentages of GSDP (Tables 4.5 and 4.6). It is

clear from Table 4.5 that since the second phase, revenue receipts slipped behind revenue expenditure especially for Kerala and Andhra Pradesh. While in the first phase revenue expenditure for Kerala was 16.75 per cent of GDP and revenue receipts was 16.48 of GDP – a gap of just 27 basis points, in the third phase revenue expenditure was 14.02 per cent of GDP and revenue receipts was 11.71 of GDP – a gap of 2.69 per cent. Table 4.6 shows that since the mid-nineties Kerala's revenue receipts as well as revenue expenditure (as percentages of GDP) have been lower than the average figures for 13 states. However in recent times Kerala's revenue expenditure (as percentage of GDP) has exceeded the average figure for 13 states. If the state has to bring down its outstanding liabilities then it is clear that the growth in revenue expenditure has to slow down. Otherwise the government will not be able to reduce its outstanding liabilities fast enough.

### **Composition of Outstanding Liabilities**

Finally we investigate what is responsible for the high debt levels of Kerala. Tables 4.7 and 4.8 show the outstanding liabilities and guarantees as percentage of GSDP. Total internal debt has shot up in the third phase in all the comparison states along with Kerala (Table 4.7). Loans from banks and financial institutions have also increased for all the states. Loans and advances from the Centre have steadily declined over the three phases. However what is remarkable about Kerala is the huge Provident funds component of outstanding liabilities. Table 4.7 shows that the share of provident funds in total outstanding liabilities is close to 30 per cent over the second and third phases while internal debt has increased over this period coinciding with a decline in loans and advances from the Centre. This is in complete contrast with all the comparison states where the share of provident funds has either come down (except in case of Rajasthan where it has remained at 20 per cent but still significantly lower than Kerala's case). With an ageing population in Kerala this is one item that could threaten fiscal stability in the years to come. Table 4.8 shows that while all other components of outstanding

liabilities are lower for Kerala in 2015-16 as compared with the average for the 13 major states, the share of provident funds (25 per cent) is more than twice that of the average for the 13 states (11.32 per cent). Another kind of liability, which is however an off-budget item, is contingent liabilities that takes the form of guarantees extended by the government on loans raised by PSEs or other government bodies. Table 4.9 shows that contingent liabilities as a percentage of GSDP have been coming down over the years yet (at 2.12 per cent) is the highest for Kerala compared to the comparison states.

### **Sustainability Analysis: Indicator based assessment**

Having analysed the trends in fiscal imbalances we now move to studying the sustainability of Kerala's state finances. Public debt sustainability refers to sustainability of the government's debt without the threat of a default. Typically a default is a last option or in most cases it is not even an option. Instead the government would drastically change its policies to delay or avoid the default (Ianchovichina et al, 2007). Therefore public debt sustainability or fiscal sustainability can be defined more generally as a government's ability to carry on with its current fiscal operations without encountering a crisis or drastically changing in policies (Greene, 2012). Therefore to examine debt sustainability it becomes important to study the growth in the debt and also assess the fiscal balance (especially primary balance) being generated which would worsen or improve the debt situation.

Domar (1944) argued that, debt is sustainable as long as the real growth of the economy remains higher than the real interest rate (the so-called Domar condition). According to Buitier (1985) and Buitier and Patel (1992), fiscal sustainability requires the rate of growth of debt-GDP ratio to be no more than the real interest rate. These studies have culminated in the widely used Indicator based approach for studying debt sustainability (RBI, 2014). The analysis covers a number of fiscal indicators starting with the popular Domar condition to credit worthiness and liquidity indicators of government finances. Table 4.10 presents an analysis of

several such indicators across the three phases of analysis. The evidence can be described as mixed. For instance, the comparison of output growth with debt growth and interest rate (Domar condition) shows that Kerala's debt is not unsustainable in view of the high GSDP growth rate in the third phase. The indicators involving primary balance indicate that while primary revenue balance has improved but the primary balance has remained negative.

Indicators 5 and 6 show that debt has grown faster than revenue receipts and own tax revenues. While interest burden appears to be under control (indicator 7) on account of a high rate of GDP growth, indicators 8 to 10 show a significant worsening of the interest payments with respect to revenue expenditure and revenue receipts along with falling revenue receipts (as percentage of GDP).

### **Sustainability Analysis: Time series approach**

The literature has gone beyond the indicator-based approach by employing time series analysis based on an inter-temporal budget constraint. Blanchard (1990) provided two conditions for sustainability viz., a) the ratio of debt to output should converge to its initial level, and b) the present discounted value of the ratio of primary surplus to output should be equal to the current level of debt to output. In other words, debt level is sustainable if a country's debt to GDP ratio remains stable, and if the economy generates debt stabilising primary balance to cover that debt in future.

Ley (2009) summarizes these ideas in terms of an elegant algebraic framework starting with the following inter-temporal budget constraint of the government:

$$D_t = (1+i_t)D_{t-1} - PB_t - \Delta M_t$$

which states that public debt at the end of any year ( $D_t$ ) is generated by the public debt at the end of the previous year ( $D_{t-1}$ ) along with the interest payment ( $i_t D_{t-1}$  where  $i$  is the average

nominal interest rate on debt) but adjusted for the primary balance (PB<sub>t</sub>) and seignorage (equivalent to increase in moneys supply ΔM<sub>t</sub>). This equation implies that the government ex-post always meets its debt obligations. Also any deficit (PB<0) is financed either by new debt or printing money (seignorage). In case of state governments who do not have recourse to seignorage, we can drop the last term and rewrite the above equation as:

$$D_t = (1+i_t)D_{t-1} - PB_t \text{ ---- (1)}$$

Normalising by GDP, we can easily arrive at an expression with all terms reported as ratio of GDP:

$$d_t = \frac{1+i_t}{(1+g_t)(1+\pi_t)} d_{t-1} - pb_t \text{ ---- (2)}$$

Greene (2012) shows how this equation can be used to arrive at the change in debt-to-GDP ratio ( $d_t - d_{t-1}$ ):

$$\Delta d_t = \frac{r_t - g_t}{(1+g_t)} d_{t-1} - pb_t \text{ ---- (3)}$$

Equations (2) and (3) are used for many types of fiscal sustainability exercises. While (2) provides the time profile of debt-to-GDP ratio, (3) can identify the primary balance needed to stabilise the debt-to-GDP ratio.

Ley (2009) shows that inserting  $\Delta d_t = 0$  in the above equation can lead us to a debt-stabilising primary balance:

$$pb_t = \frac{r_t - g_t}{(1+g_t)} d_{t-1} \text{ ---- (4)}$$

The left hand side of this expression gives us the required primary surplus that will stabilise the debt and can also be interpreted as a fiscal rule. This expression generated a lot of time series based empirical work using tests of non-stationarity and cointegration of the debt and primary balance series. However Bohn (1998, 2008) criticised such tests as flawed as they

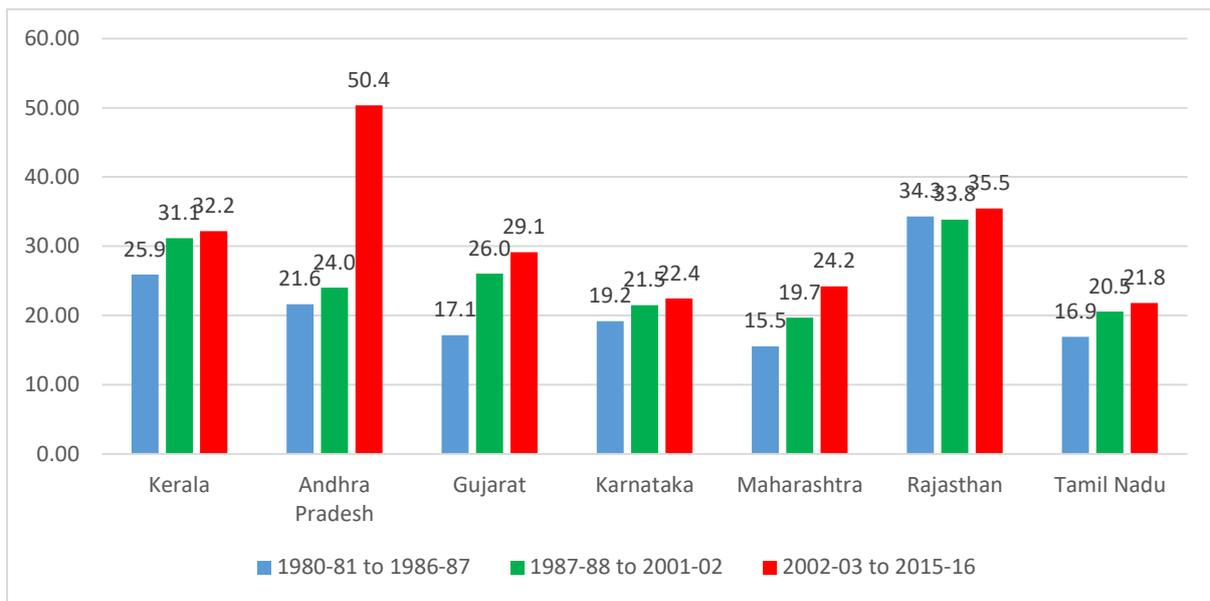
make assumptions about future states of nature that are difficult to estimate from a single set of observed time series data. Instead Bohn formalised the above fiscal rule idea in terms of a simple and intuitive fiscal reaction function that tests whether the primary balance to GDP ratio is a linear function of the debt to GDP ratio:

$$pb_t = a_0 + a_1*d_t + a_2*Z_t + e_t \text{--- (5)}$$

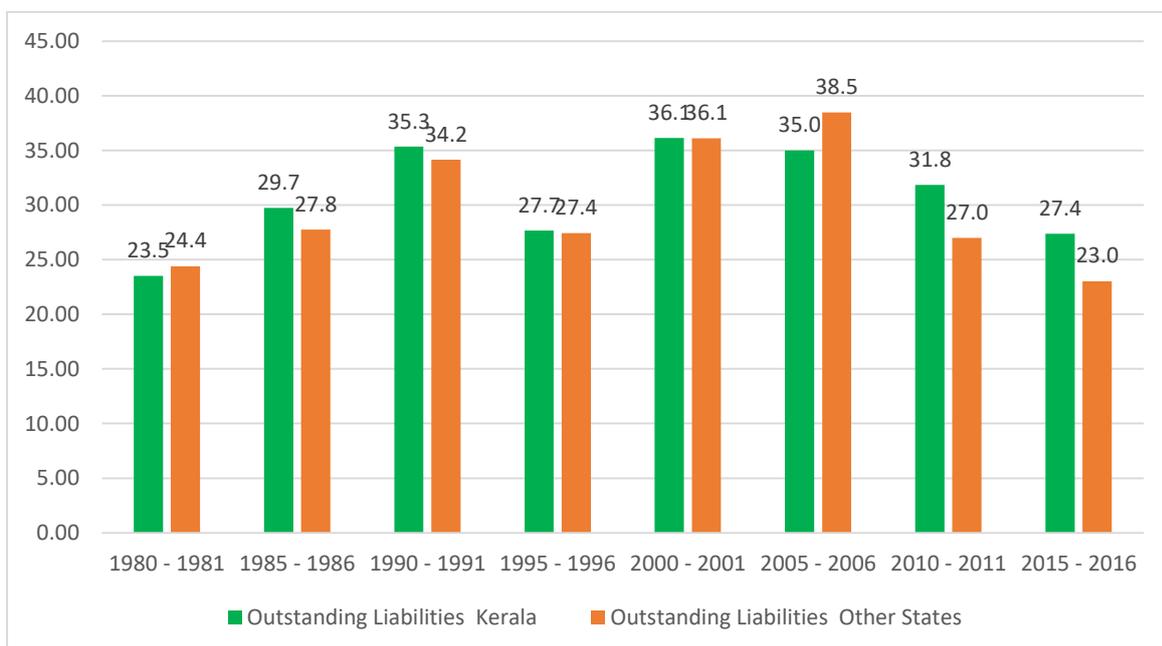
where  $a_1$  is the fiscal reaction parameter,  $Z_t$  is a set of other determinants of primary balance and  $e_t$  is an error term. This fiscal reaction function shows how a government reacts to debt accumulation and therefore it is expected that the primary balance should respond positively to any increase in the debt stock. Therefore a positive and statistically significant fiscal reaction parameter becomes the test of fiscal sustainability. We carry out this test using the output gap and lagged primary balance as additional determinants of primary balance as done in various studies (e.g. Stoica and Leonte, 2011; Burger et al., 2012; Nguyen, 2013). The output gap is defined as the difference between the actual GSDP and a potential GSDP series (generated using a Hodrick-Prescott filter).

The unit root tests reveal that while the primary balance to GSDP series is stationary, the debt-GSDP series is non-stationary. Therefore, we estimate equation (5) using both OLS as well as VAR in first difference and the results are shown in Table 4.11. The OLS result shows that the coefficient of debt is positive but is not statistically significant. The only statistically significant coefficient is that of lagged primary balance whose positive sign suggests some inertia in fiscal behaviour. The VAR results also do not provide a statistically significant fiscal reaction coefficient. Therefore the result of this analysis does not point towards unsustainability of Kerala's fiscal situation.

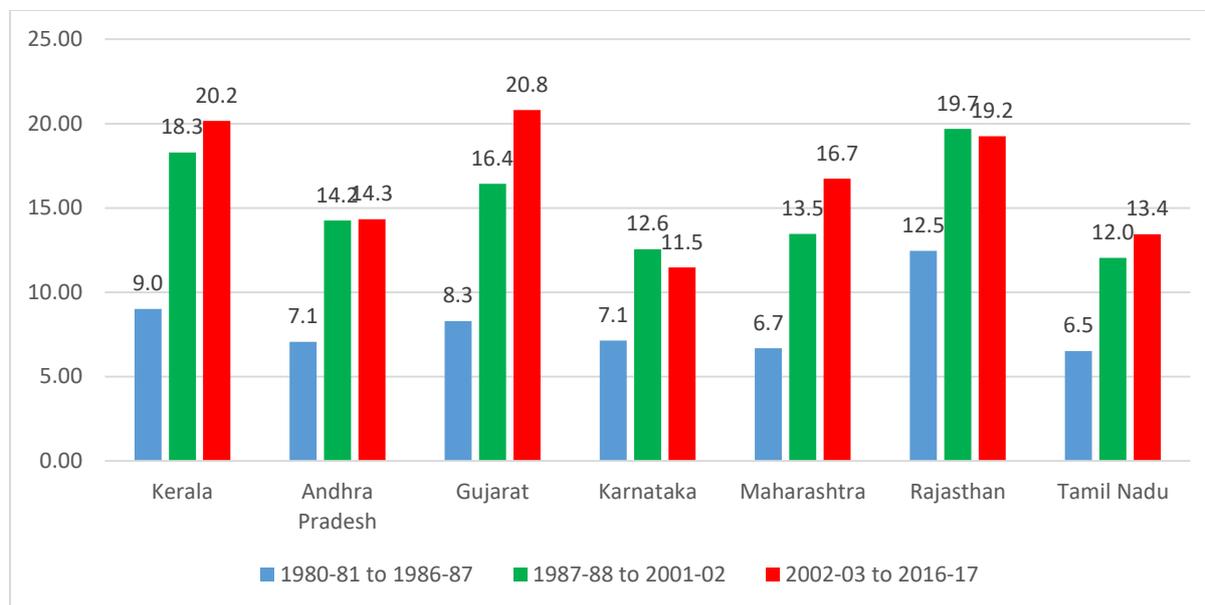
**Figure 4.1: Phase-wise Average of Outstanding Liabilities (% of GDP): Kerala vs Comparison States**



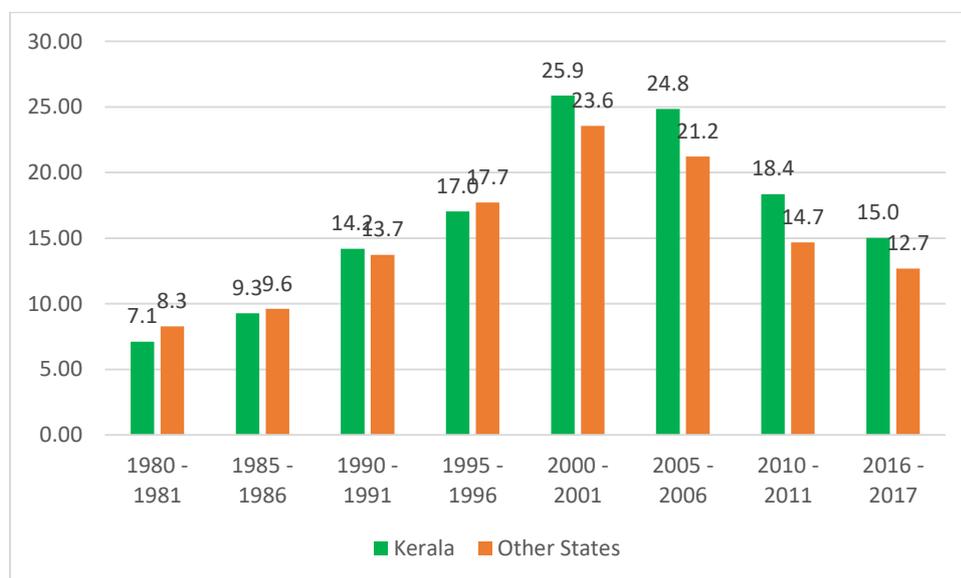
**Figure 4.2 Outstanding Liabilities (% of GDP): Kerala vs 13 Major States (at five year intervals)**



**Figure 4.3 Phase-wise Average of Interest Payments (% of Revenue Receipts): Kerala vs Comparison States**



**Figure 4.4 Interest Payments (% of Revenue Receipts): Kerala vs 13 Major States (at five year intervals)**



**Table 4.1 Phase-wise Average of Gross Fiscal Deficit & Revenue Deficit (% of GSDP): Kerala vs Comparison States**

States	Gross Fiscal Deficit			Revenue Deficit		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	3.63	4.51	3.54	0.28	2.42	2.15
Andhra Pradesh	3.25	3.45	2.68	-0.02	1.01	0.19
Gujarat	3.74	4.29	2.79	-0.40	1.77	0.34
Karnataka	3.66	3.32	2.48	-0.44	0.86	-0.41
Maharashtra	3.27	3.01	2.38	-0.14	0.96	0.55
Rajasthan	4.54	4.99	3.93	-0.27	1.73	0.89
Tamil Nadu	2.72	3.08	2.35	-0.83	1.99	0.30

**Table 4.2 Gross Fiscal Deficit & Revenue Deficit (% of GSDP): Kerala vs 13 Major States (at five year intervals)**

Year	Gross Fiscal Deficit		Revenue Deficit	
	Kerala	Other States	Kerala	Other States
1980 - 1981	4.20	3.97	0.65	-1.34
1985 - 1986	4.30	4.09	0.98	-0.32
1990 - 1991	5.67	4.87	2.99	1.38
1995 - 1996	3.36	3.43	1.04	1.25
2000 - 2001	5.34	5.17	4.33	3.12
2005 - 2006	3.06	2.77	2.29	0.22
2010 - 2011	2.93	2.43	1.39	0.13
2016 - 2017	3.03	2.99	1.50	0.00

**Table 4.3 Phase-wise Average of Composition of GFD - Revenue Deficit, Capital Outlay & Net Lending (% of total): Kerala vs Comparison States**

States	Revenue Deficit			Capital Outlay			Net Lending		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16
Kerala	-11.19	50.40	54.08	91.49	32.41	34.73	19.76	16.13	10.39
Andhra Pradesh	-12.14	27.19	3.00	89.52	52.23	88.70	22.59	20.59	14.82
Gujarat	-10.61	31.52	0.60	69.50	55.76	97.33	46.81	12.74	2.46

Karnataka	-25.68	22.99	-22.74	75.67	65.59	117.01	49.93	11.43	7.83
Maharashtra	-8.15	27.61	51.50	67.90	58.98	44.37	40.39	13.42	4.43
Rajasthan	-6.08	28.61	9.66	79.48	63.64	85.53	26.54	7.76	-0.85
Tamil Nadu	-31.93	60.79	-3.82	46.46	32.21	94.05	85.46	7.00	10.15

**Table 4.4 Phase-wise Average of Composition of GFD - Revenue Deficit, Capital Outlay & Net Lending (% of total): Kerala vs 13 Major States (at five year intervals)**

Year	Revenue Deficit		Capital Outlay		Net Lending	
	Kerala	Other States	Kerala	Other States	Kerala	Other States
1980 - 1981	15.56	-34.08	67.78	79.26	16.67	54.84
1985 - 1986	22.91	-13.62	63.78	72.37	13.31	41.24
1990 - 1991	52.82	23.16	32.04	53.61	15.14	23.26
1995 - 1996	30.93	33.03	40.38	53.43	25.79	13.54
2000 - 2001	81.15	58.70	14.88	36.64	3.97	4.66
2005 - 2006	74.82	-44.79	19.54	153.49	5.64	-8.66
2010 - 2011	47.48	-47.92	43.47	134.42	9.31	14.21
2016 - 2017	49.48	-0.86	47.86	86.87	-	-

**Table 4.5 Phase-wise Average of Revenue Expenditure & Revenue Receipts (% of GSDP): Kerala vs Comparison States**

States	Revenue Expenditure			Revenue Receipts		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	16.75	17.14	14.02	16.48	14.71	11.71
Andhra Pradesh	16.32	15.50	14.17	16.34	14.49	12.97
Gujarat	12.82	15.23	10.75	13.22	13.46	10.47
Karnataka	15.82	15.95	13.14	16.25	15.09	13.55
Maharashtra	13.70	12.89	10.61	13.83	11.93	10.07
Rajasthan	15.92	17.27	15.16	16.19	15.54	14.40
Tamil Nadu	15.44	16.22	12.62	16.27	14.23	12.32

**Table 4.6 Revenue Expenditure & Revenue Receipts (% of GSDP): Kerala vs 13 Major States (at five year intervals)**

Year	Revenue Receipts		Revenue Expenditure	
	Kerala	Other States	Kerala	Other States
1980 - 1981	14.94	15.73	15.58	14.39
1985 - 1986	18.23	16.98	19.22	16.66
1990 - 1991	17.04	17.19	20.04	18.57
1995 - 1996	13.99	14.00	15.03	15.25
2000 - 2001	12.02	13.38	16.35	16.50
2005 - 2006	11.18	14.21	13.46	14.43
2010 - 2011	11.75	13.86	13.14	13.85
2016 - 2017	12.75	13.33	14.17	13.50

**Table 4.7 Phase-wise Average of Composition of Outstanding Liabilities (% Share in total): Kerala vs Comparison States**

States	Total Internal Debt			Loans from Banks and Fls			Loans and Advances from Centre			Provident Funds		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16
Kerala	21.08	24.77	55.51	0.00	3.24	6.34	59.06	38.98	9.44	19.86	30.72	29.70
Andhra Pradesh	21.05	26.01	64.65	0.00	2.84	5.14	72.11	53.63	15.71	6.84	8.80	6.90
Gujarat	18.14	14.72	68.26	0.00	1.58	3.22	71.01	60.50	11.06	10.85	8.20	4.97
Karnataka	19.92	21.57	54.60	0.00	2.27	2.93	68.19	52.55	15.33	11.89	15.41	13.81
Maharashtra	13.67	11.62	62.57	0.00	1.16	3.50	73.45	57.15	7.01	12.88	9.56	6.60
Rajasthan	19.78	22.89	59.29	0.00	1.90	3.71	69.58	47.64	10.25	10.64	19.85	20.93
Tamil Nadu	23.18	23.78	68.21	0.00	2.69	6.69	69.46	48.96	10.09	7.35	13.12	9.85

**Table 4.8 Composition of Outstanding Liabilities (% Share in total): Kerala vs 13 Major States (at five year intervals)**

Year	Total Internal Debt		Loans from Banks and Fls		Loans and Advances from Centre		Provident Funds	
	Kerala	Other States	Kerala	Other States	Kerala	Other States	Kerala	Other States
1980 - 1981	16.57	20.20	0.00	0.00	65.48	69.34	17.96	10.46
1985 - 1986	16.72	16.23	0.00	0.00	61.78	71.37	21.50	12.40
1990 - 1991	22.88	15.10	2.93	1.73	43.47	56.51	28.32	13.86
1995 - 1996	23.19	17.37	3.49	1.73	39.54	52.46	31.62	16.14
2000 - 2001	28.83	30.33	5.61	4.77	25.41	40.54	38.81	16.36
2005 - 2006	53.50	61.31	7.84	5.45	11.32	14.46	30.99	12.78
2010 - 2011	57.79	64.31	6.46	4.37	7.58	8.75	28.33	12.96
2015 - 2016	65.09	69.14	3.12	4.33	5.36	5.93	25.01	11.32

**Table 4.9: Outstanding Liabilities (as percentage of GSDP)**

Year	Kerala	Andhra Pradesh	Gujarath	Karnataka	Maharashtra	Rajasthan	Tamil Nadu
1991 - 1992	9.95	8.94	14.74	10.16	10.01	11.85	7.83
1995 - 1996	5.37	5.44	9.07	8.31	5.15	10.06	4.42
2000 - 2001	12.06	9.08	15.57	11.99	17.82	14.50	8.44
2005 - 2006	8.73	6.80	5.75	4.53	12.22	9.21	2.46
2010 - 2011	2.82	1.99	1.69	1.61	1.43	14.98	_
2011 - 2012	2.27	1.36	1.24	1.10	0.89	13.91	2.94
2012 - 2013	2.21	1.86	0.88	0.97	0.65	_	2.81
2013 - 2014	2.10	3.36	_	0.95	0.47	_	5.10
2014 - 2015	2.12	1.31	_	1.20	_	_	_

**Table 4.10: Sustainability indicators**

	Indicators	Phase I	Phase II	Phase III
		1981-82 to 1986-87	1987-88 to 2001-02	2002-03 to 2015-16
1	Rate of Growth of GDP (G) should be greater than Rate of Growth of Debt (D); $G - D > 0$	-5.07	-1.11	1.24
2	Real Output Growth (g) should be higher than Real Rate of Interest (r); $g - r > 0$	6.68	7.73	8.81
3	Primary Balance should be in surplus; $PB > 0$	-2.14	-1.90	-1.19
4	Primary Revenue Balance ( $PRB = RD - IP$ ) should be in surplus	-1.21	-0.19	0.07
5	Debt to revenue receipts ratio should decline over time	1.58	2.17	2.77
6	Debt to own tax revenue ratio should decline over time	3.02	3.53	4.26

7	Interest Burden Defined by Interest Payments (IP) to GDP ratio should decline over time	0.01	0.03	0.02
8	Interest Payments (IP) as a per cent of Revenue Expenditure (RE) should decline over time.	0.09	0.15	0.17
9	Interest Payments (IP) as a per cent of Revenue Receipts (RR) should decline over time.	0.09	0.18	0.21
10	Revenue Receipts (RR) as a percent to GDP should increase over time.	0.16	0.15	0.12

**Table 4.11: Fiscal reaction function for Kerala**

Dependent variable: Primary Balance	OLS		VAR (in first difference)	
	Coefficient	t-statistic	Coefficient	t-statistic
Constant	-0.024903	-2.123155	-0.000176	-0.10260
Debt (-1)	0.048074	1.287025	0.053136	0.70330
Output_gap (-1)	-1.98E-08	-0.141597	1.02E-07	0.77516
Primary balance (-1)	0.362002	2.148450	-0.192725	-1.23437
Adjusted R-squared	0.134792		0.001043	
Log likelihood	116.2906		110.6974	

## 5 Expenditure Management

Government expenditure is needed in an economy due to the following main reasons (Greene 2011).

(a) Provision of public goods: Public goods are the ones which (a) cannot be bundled out to individual consumers (b) are consumed without reducing the size of the good available and (c) do not generate profits. They could ideally be supplied only by the government. Some of the examples of public goods are public health and education, police and fire services, public museums and national defence.

(b) To tackle economic slowdown: At times of general economic slowdown the private sector would show a tendency to cut down its investment activity. In such circumstances, the government could venture into additional spending, called countercyclical fiscal policy, to enable the economy grow out of tough time.

(c) Regulation: In a market economy government, as a neutral institution, has an important role to play to regulate the private businesses and to smooth out the inherent conflicts of interest between private businesses by way of establishing a robust regulatory framework consisting of regulatory authorities and dispute resolution mechanisms, which could guide the operation of the private sector.

(d) Income redistribution: In a market economy not all the sections in the society would benefit from the operation of the private sector as the latter functions with profit motivation. This would cause inequality in income and neglect of vulnerable sections of society from the economic development process. Government can address this concern by way of spending on essential public services such as health, education and social welfare and of creating a social safety net for the poor and vulnerable.

Evidence across the globe suggests that the size of government expenditure depends heavily on the size of the public revenue mobilized through tax and non-tax sources. That is, higher the willingness of the taxpayers to pay taxes, larger the size of government expenditure. Suitable examples of such a trend are Denmark, France, and Sweden. Another factor determining the level of government expenditure is the income level of the country. In general, it is found that government expenditure in high income countries exceeds that in low income countries mainly due to higher public revenue in the former.

### **Types of government expenditure**

Government expenditure can be categorized under two headings namely economic and functional. The economic classification comprises two sub-divisions: Current expenditure and Capital expenditure. Current expenditure refers to expenditure incurred on day-to-day functioning of govt. Examples are expenses on wages and salaries of government employees, purchase of goods and services by government for its use, interest payments, grants to SNGs and non-profit institutions, subsidies pensions and military outlays (excluding spending on military bases). Expenditures which are incurred on asset creation are called capital expenditure. It includes spending on fixed capital formation such as public buildings, infrastructure and military installations excluding weapons; facilities supporting the expansion of private businesses; grants for capital formation; investments in shares of government concerns and loans given by national government to SNGs for the purpose of capital formation.

The purpose of functional classification of government expenditure is to group government spending under various programme/functional areas such as health, education, family welfare, housing, agriculture, irrigation, rural development, energy and transportation. Functional classifications vary from country to country on the basis of the nature of government programs in each country.

## Composition and growth of expenditure in Kerala

A significant part of Kerala's total public expenditure consists of current expenditures. Its share in total expenditure has increased over the years from 78.13 per cent in 1980-81 to a peak of 90.33 per cent in 2000-01 and then declined to 86.43 per cent in 2016-17 (Figure 5.1). Concomitantly, the share of capital expenditure and capital outlay declined over the years.<sup>8</sup> The fact that only a very small portion of state's overall budgetary resources are allotted for capital formation (capital outlay) do not augur well for the state economy as it is this expenditure that really affects the growth process in an economy. These trends on composition of expenditure were visible in the major states as well, on an average (Figure 5.2 and 5.3). However, one notable difference is that in Kerala, over the years, the share of current expenditure and capital outlay was higher and lower respectively than the major states as a whole (Figure 5.4 and 5.5).

The key reason for the higher share of revenue expenditure in Kerala has been the larger expenditure commitment on two revenue expenditure heads namely salaries and pensions and interest payments (Table 5.1). Today, they constitute around 56 per cent of state's revenue expenditure. More importantly, as percentage of revenue expenditure, Kerala had the highest salary and pension burden among the comparable states since the beginning of this decade (Table 5.2). However, the silver lining is that both as percentage of revenue expenditure and state GDP the expenditure on salaries and pensions in Kerala has declined significantly over the years. Similar trend was witnessed in all the comparable states except Gujarat (see Table 5.2). Another notable trend has been the fall in the interest payment liabilities in Kerala and all the comparable states from the beginning of the current decade (Table 5.3). Subsidies constitute

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<sup>8</sup> However, starting from 2005-06, the share of capital expenditure and capital outlay in Kerala's total expenditure has witnessed an upward trend against downward trend earlier. As percentage of GSDP as well, capital outlay has increased notably from 0.60 per cent in 2005-06 to 1.45 per cent in 2016-17 (Figure 5.2).

a negligible portion of Kerala's revenue expenditure, though it has increased over the years, particularly in recent times (Figure 5.6).

Table 5.4 presents the trends in total public expenditure and its components in Kerala and comparable states during the three phases of economic growth trajectory identified in this study. The total public expenditure of Kerala has declined from 20.38 per cent of GSDP during the phase of moderate economic growth (1987-88 to 2001-02) to 16.20 per cent during accelerated economic growth phase (2002-03 to 2016-17). In all the comparable states as well the total public expenditure has declined between the same periods. The drop in the total expenditure in Kerala was second largest (4.18 percentage points) among all the comparable states and was caused by decline in both revenue expenditure and capital expenditure and outlay. In contrast, in all comparable states except Rajasthan the decline in the total expenditure was not at the cost of capital outlay. Moreover, the capital expenditure and outlay incurred in Kerala during accelerated economic growth phase was lowest among the comparable states.

### **Expenditure on Social and Economic Service in Kerala**

Tables 5.5, 5.6 and 5.7 present the expenditure under the two functional heads namely social and economic services (excluding as well as including loans and advances) as percentage of state GSDP in Kerala and major states. Over the years Kerala has been spending more on social services than economic services. The total expenditure on social and economic services (both excluding and including loans and advances) as percentage of GSDP has declined significantly in Kerala over the years (Table 5.5). Similar trend was witnessed in the major states as a whole, particularly in the case of economic services. The expenditure on social services in Kerala has declined from the peak of 11.20 per cent of GSDP (including loans and advances) in 1985-86 to 5.10 per cent in 2016-17. In case of economic services the same has declined from 6.43 per cent in 1980-81 to 3.30 per cent in 2016-17. But, the silver lining is that starting from the second half of the last decade the expenditure on social services has increased

in Kerala and major states put together as percentage of GSDP. In case of economic services as well, the total expenditure increased both in Kerala and major states between 2010-11 and 2016-17 (see Table 5.5).

An analysis of expenditure incurred on the provision of social and economic services during the various economic growth regimes reveals that, on an average, expenditure on social and economic services (both including and excluding loans) has declined as percentage of GSDP in Kerala and almost all the comparable states during the moderate and high economic growth phases compared with the stagnation phase (Table 5.6 and 5.7). Also, during the high growth phase, the expenditure incurred on economic services in Kerala was lowest. Such a trend is a cause for serious concern since higher economic growth is expected to lead to higher public spending on essential public services due to improved prospects of public revenue mobilisation in a fast growing economy.

More importantly, the drop in the expenditure on social and economic services was larger during the phase of accelerated economic growth in Kerala and majority of the comparable states compared with the moderate growth phase. And, in case of Kerala the decline in the expenditure on social services during the accelerated economic growth phase was the highest among the comparable states and was caused by decline in both revenue expenditure and expenditure on capital formation (See Tables 5.7 and 5.8). The decline in the expenditure on economic services in Kerala was also resulted from the decline in revenue expenditure, capital expenditure and capital outlay (Table 5.9). In the comparable states, the expenditure allocation is partly better in the sense that the capital expenditure and outlay on social services has witnessed an increase as a percentage of state GDP during the phase of accelerated economic growth (Table 5.8).

Tables 5.10 to 5.16 present the expenditure incurred on major individual category of social and economic services as percentage of GSDP under the three economic growth regimes.

Over the years, among the comparable states, Kerala has spent more on health and education than any other heads of social and economic services.

Alarming, except transport and communications (under economic services), the total expenditure on all the other individual heads namely education, public health, housing (all under social services), agriculture and allied activities, irrigation, industry and minerals (all under economic services) has declined in Kerala during the phase of accelerated economic growth compared with the period of moderate economic growth.<sup>9</sup> The decline in the public expenditure under these heads was caused by the fall in all the components of expenditure namely revenue expenditure, capital expenditure and capital outlay. A comparison of Kerala's performance with the comparable states reveals that, compared with the phase of moderate economic growth, the total expenditure on education, public health, agriculture and allied activities, irrigation (except Andhra Pradesh) and industry and minerals (except Maharashtra) has declined as a percentage of GSDP in all the comparable states during the period of accelerated economic growth. However, unlike Kerala, the fall in the total expenditure on two crucial expenditure heads namely education and public health in the comparable states (except Rajasthan in case of education) was not at the cost of capital expenditure and capital outlay.

### **Quality of expenditure on social and economic services in Kerala**

In addition to the reduced significance of allocation on social and economic services another distressing feature of expenditure pattern in Kerala and comparable states has been the disproportionately larger amounts spend on current expenditures like wages and salaries, subsidies and other transfers within the social and economic services. Consequently, budgetary resources allotted for maintenance of capital assets and creation of new assets within such

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<sup>9</sup> Moreover, the expenditure on education, public health, housing, and agriculture and allied activities has declined during the moderate economic growth phase as well compared with the period of economic stagnation.

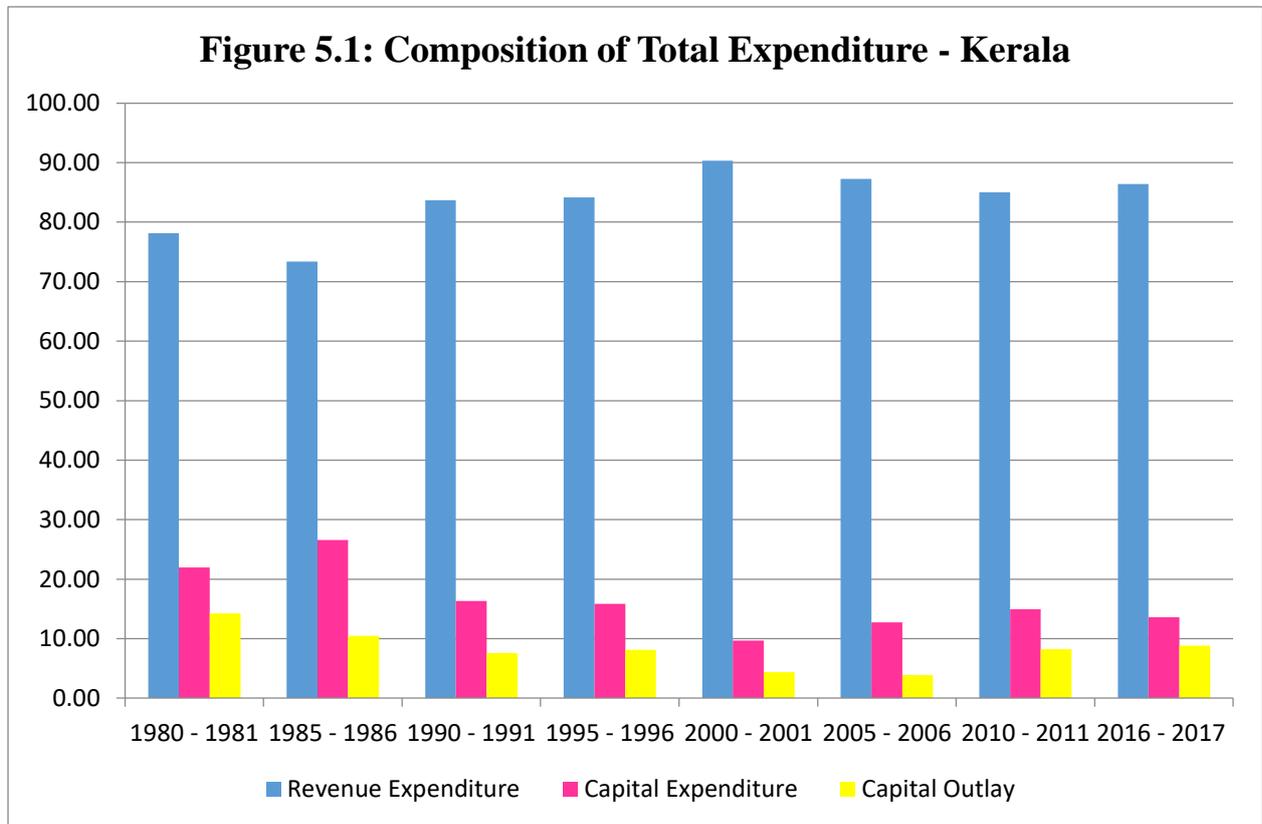
essential services has declined over time. This fact is brought out clearly in Tables 5.17 and 5.18 showing the revenue expenditure, capital expenditure and capital outlay components of states' allocation on social and economic services.

Current expenditures constituted over 90 per cent of expenditures on social services in Kerala since 1980-81 (Table 5.17). On the other hand, the share of capital expenditure and capital outlay on social services was not only small but also declined consistently till 2000-01. However, starting from 2000-01 the state witnessed an upward movement in the share of capital expenditure and capital outlay on social services. For instance, the capital outlay on social services in Kerala has increased from a mere 1.32 per cent of total expenditure on social services in 2000-01 to 5.10 per cent in 2016-17. Similar trend was witnessed in case of major states as a whole. However in their case the increase in the share of capital expenditure and capital outlay from 2000-01 was much larger compared to Kerala (see Table 5.17).

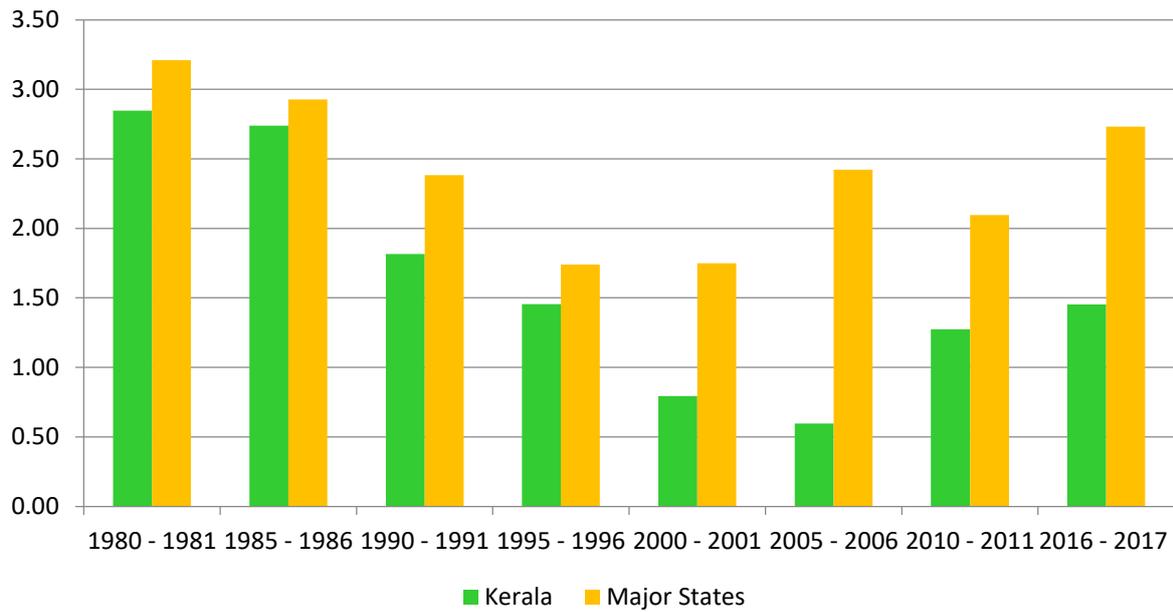
Compared to social services, the quality of expenditure is better in the case of economic services in the sense that the capital expenditure and capital outlay on economic services was much higher than social services both in Kerala and major states put together (Table 5.18). However, until mid-2000s, the share of capital outlay on economic services was falling consistently in Kerala. Since mid-2000s, the share of capital outlay on economic services has increased notably in Kerala from 13.47 per cent of total expenditure on economic services in 2005-06 to 35.24 per cent in 2016-17 (see Table 5.18).

Indeed the above analysis of quality of expenditure focuses only on components of spending but on the outcomes. While outcomes are not the focus of our report, we made an attempt to analyse the question whether Kerala is overspending on health and education compared to other states in achieving the desired outcomes (see Appendix 3). The analysis examines whether Kerala spends more than necessary to achieve its education and health outcomes. Such an 'efficiency of spending' analysis reveals that Kerala overspends on

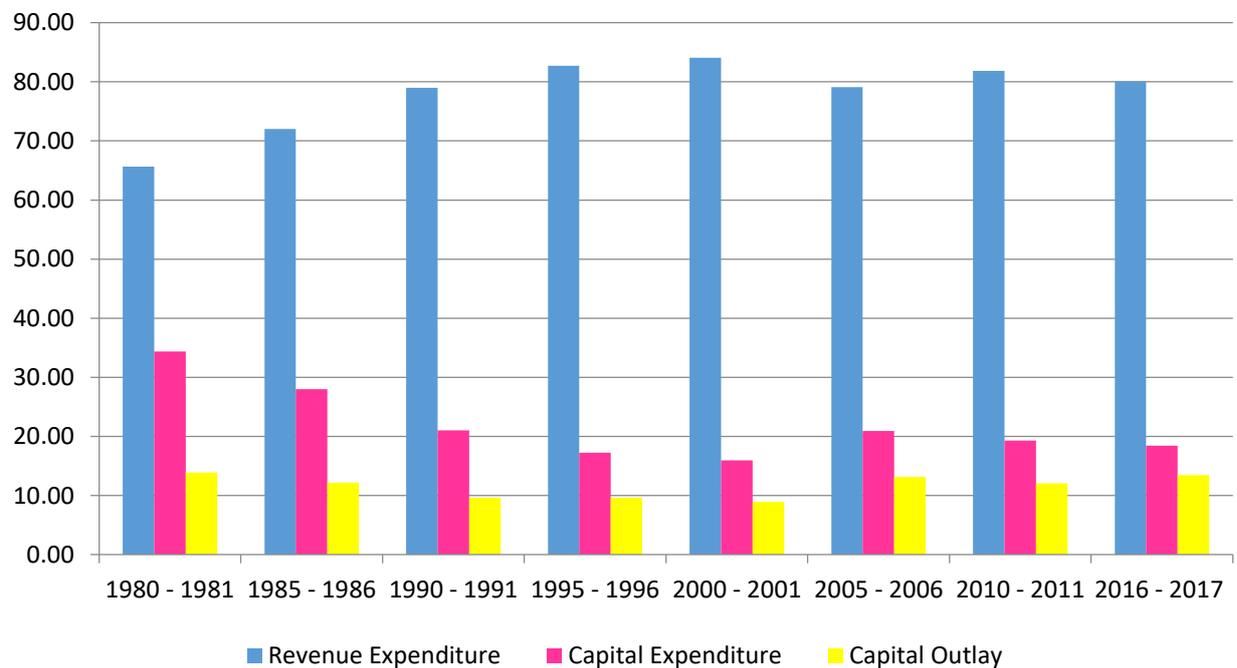
achieving literacy. In terms of health, Kerala overspends on tackling infant mortality. This points towards some scope of rationalising social expenditure.



**Figure 5.2: Capital Outlay as percentage of GSDP**

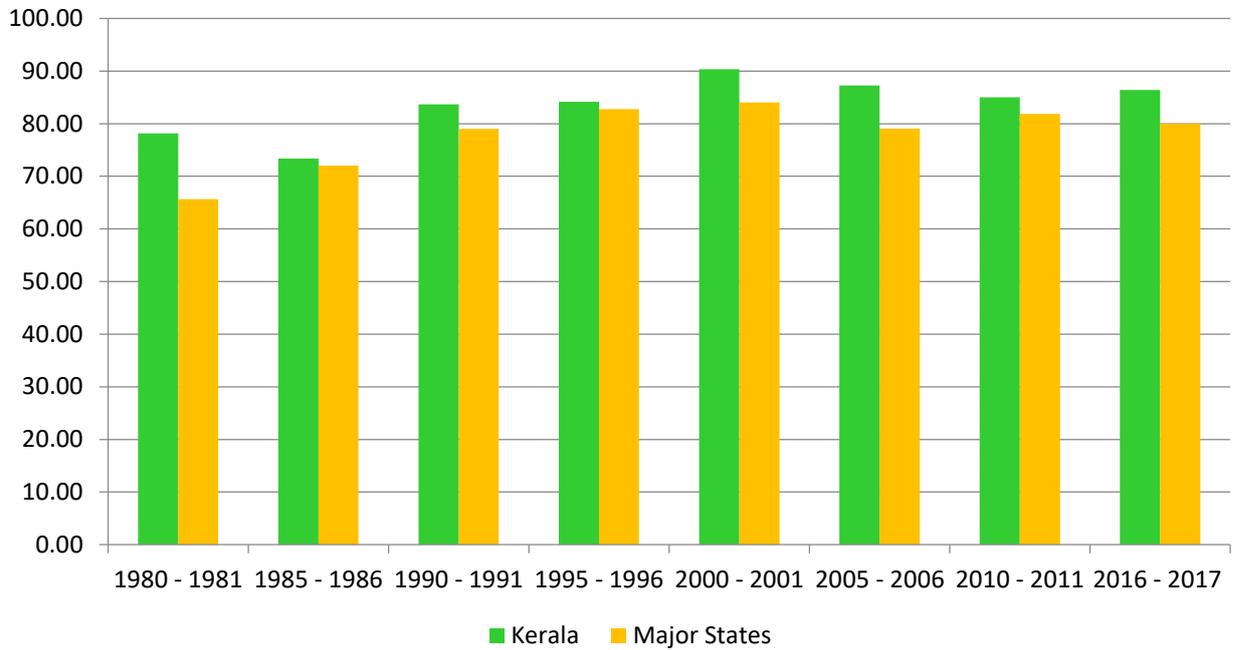


**Figure 5.3: Composition of Total Expenditure - Major States\***

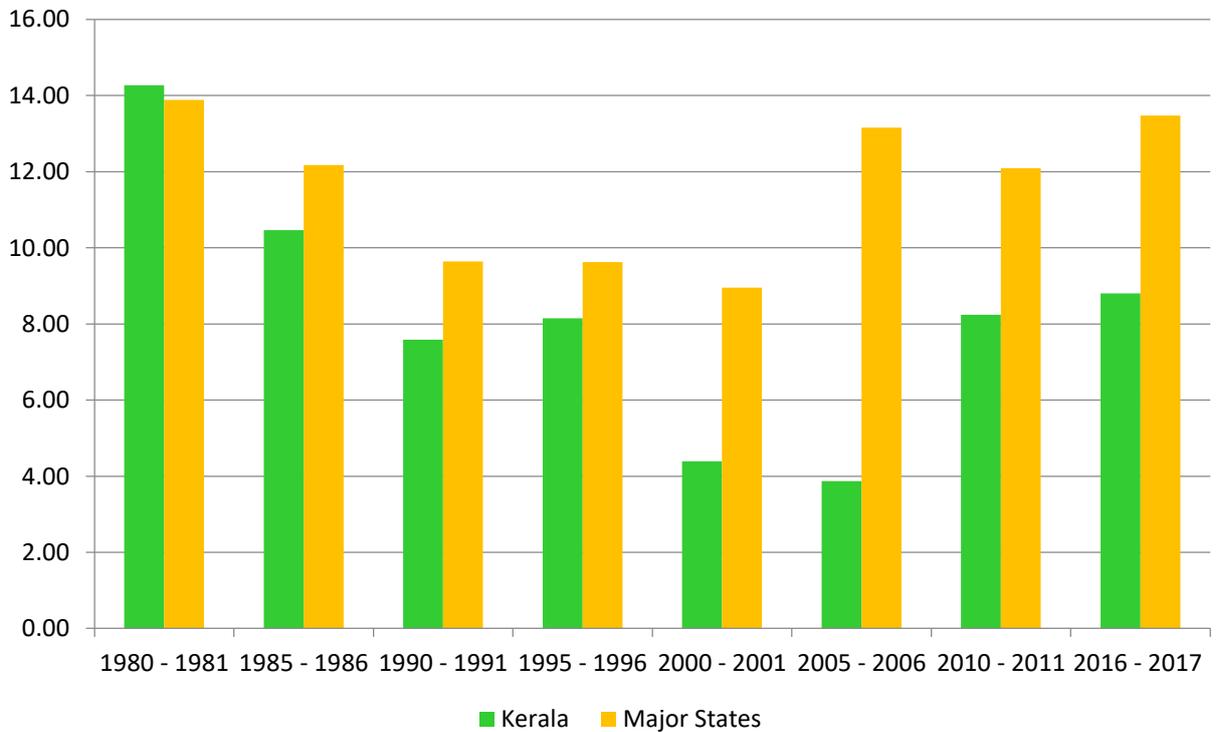


\* - Includes 13 major states excluding Kerala

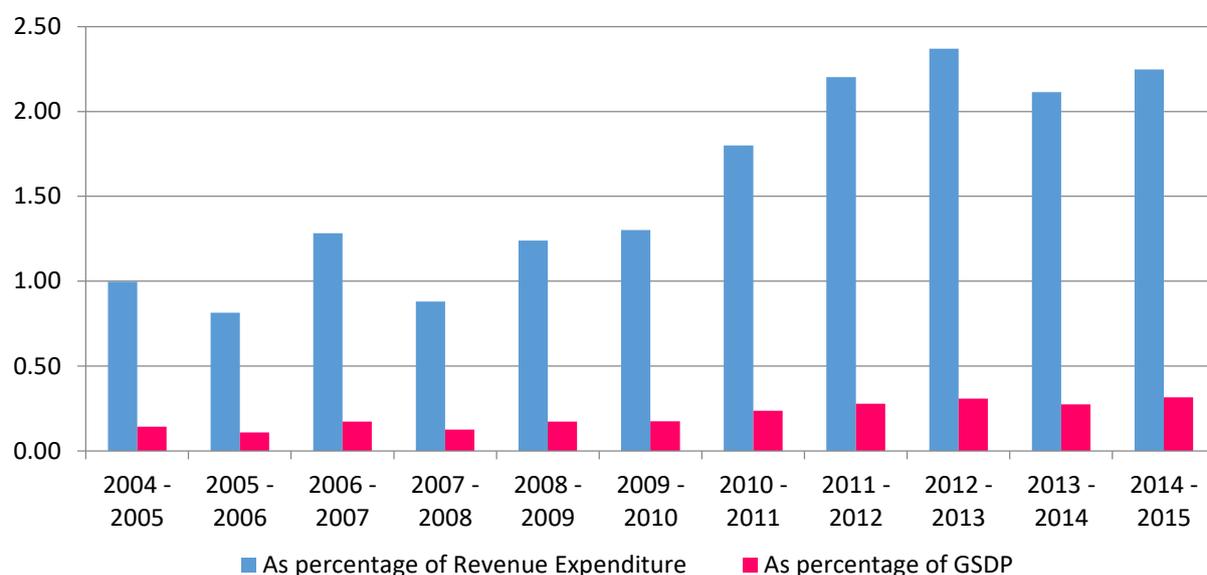
**Figure 5.4: Share of Revenue Expenditure in Total Expenditure**



**Figure 5.5: Share of Capital Outlay in Total Expenditure**



**Figure 5.6: Expenditure on Subsidies in Kerala**



Source: Kerala Public Expenditure Review Committee (Various Reports)

**Table 5.1: Expenditure on Salaries and Pensions, Interest Payments and Subsidies in Kerala (As percentage of Revenue Expenditure and GSDP)**

Year	As percentage of Revenue Expenditure			As percentage of GSDP		
	Salaries and Pensions	Interest Payments	Subsidies	Salaries and Pensions	Interest Payments	Subsidies
1990 - 1991	69.98	12.06	-	14.02	2.42	-
1995 - 1996	50.58	15.86	-	7.60	2.38	-
2000 - 2001	54.64	19.01	-	8.93	3.11	-
2005 - 2006	46.36	20.62	0.81	6.24	2.78	0.11
2010 - 2011	48.98	16.41	1.80	6.44	2.16	0.24
2015 - 2016	42.95	12.85	-	6.26	1.87	-

Source: State Finances : A Study of Budgets, RBI (Various Issues) (For Salaries, Pensions and Interest Payments)

Kerala Public Expenditure Review Committee (Various Reports) (For Subsidies)

Note: '-' indicates not available

**Table 5.2: Expenditure on Salaries and Pensions in Kerala and Comparable States**

Year	As percentage of Revenue Expenditure						
	Kerala	Andhra Pradesh	Gujarat	Karnataka	Maharashtra	Rajasthan	Tamil Nadu
1990 - 1991	69.98	43.20	20.57	55.15	47.23	-	47.83
1995 - 1996	50.58	43.96	20.04	52.17	49.52	-	45.12

2000 - 2001	54.64	44.89	16.64	52.31	54.30	45.18	51.39
2005 - 2006	46.36	38.57	18.89	44.16	50.02	39.40	41.99
2010 - 2011	48.98	42.08	37.69	43.73	47.84	43.95	48.82
2011 - 2012	54.27	41.95	39.51	36.87	45.57	40.57	46.99
2012 - 2013	49.41	36.86	37.09	43.57	46.98	38.54	41.99
2015 - 2016	42.95	32.54	-	39.06	43.92	-	-

**Source:** State Finances : A Study of Budgets, RBI (Various Issues)

**Note:** '-' indicates not available

**Table 5.2 (Contd.): Expenditure on Salaries and Pensions in Kerala and Comparable States**

Year	As percentage of GSDP						
	Kerala	Andhra Pradesh	Gujarat	Karnataka	Maharashtra	Rajasthan	Tamil Nadu
1990 - 1991	14.02	7.13	3.00	6.69	6.42	-	8.61
1995 - 1996	7.60	5.84	2.44	5.41	5.39	-	6.30
2000 - 2001	8.93	7.16	3.30	5.73	8.05	8.24	7.61
2005 - 2006	6.24	5.26	1.97	4.15	5.37	5.96	5.21
2010 - 2011	6.44	5.66	4.15	3.69	4.85	5.83	6.09
2011 - 2012	6.86	5.12	3.83	2.81	4.42	4.99	5.24
2012 - 2013	6.41	4.64	3.57	3.37	4.50	4.95	4.76
2015 - 2016	6.26	2.67	-	3.20	4.42	-	-

**Table 5.3: Expenditure on Interest Payments in Kerala and Comparable States**

Year	As percentage of Revenue Expenditure						
	Kerala	Andhra Pradesh	Gujarat	Karnataka	Maharashtra	Rajasthan	Tamil Nadu
1990 - 1991	12.06	10.71	13.02	15.42	10.06	14.33	8.08
1995 - 1996	15.86	14.41	15.15	17.98	11.97	14.81	11.85
2000 - 2001	19.01	16.44	14.21	20.10	13.97	22.21	14.36
2005 - 2006	20.62	20.07	24.12	20.43	17.88	24.23	14.24
2010 - 2011	16.41	12.32	16.76	16.27	14.70	16.42	10.89
2015 - 2016	12.85	0.52	15.99	12.51	13.70	10.80	11.64

**Source:** State Finances : A Study of Budgets, RBI (Various Issues)

**Table 5.3 (Contd.): Expenditure on Interest Payments in Kerala and Comparable States**

Year	As percentage of GSDP						
	Kerala	Andhra Pradesh	Gujarat	Karnataka	Maharashtra	Rajasthan	Tamil Nadu
1990 - 1991	2.42	1.77	1.90	1.87	1.37	2.41	1.45
1995 - 1996	2.38	1.91	1.85	1.86	1.30	2.61	1.65
2000 - 2001	3.11	2.62	2.82	2.20	2.07	4.05	2.13
2005 - 2006	2.78	2.74	2.51	1.92	1.92	3.66	1.77
2010 - 2011	2.16	1.66	1.85	1.37	1.49	2.18	1.36
2015 - 2016	1.87	0.04	1.40	1.03	1.38	1.75	1.41

Table 5.4: Total Expenditure and its Components (As percentage of GSDP)

States	Total Expenditure			Revenue Expenditure			Capital Expenditure			Capital Outlay		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	22.45	20.38	16.20	16.76	17.14	13.97	5.70	3.24	2.23	2.72	1.39	1.06
Andhra Pradesh	20.92	19.29	16.74	16.32	15.50	12.74	4.60	3.78	3.99	2.61	1.73	2.14
Gujarat	18.72	19.14	14.40	12.82	15.23	10.75	5.90	3.90	3.65	2.46	2.06	2.34
Karnataka	22.20	19.59	17.02	15.82	15.95	13.14	6.39	3.64	3.88	2.46	2.06	2.72
Maharashtra	18.16	15.71	13.29	13.70	12.89	10.61	4.47	2.82	2.68	2.15	1.66	1.66
Rajasthan	23.55	22.30	19.75	15.93	17.27	15.16	7.63	5.02	4.59	3.59	2.87	2.51
Tamil Nadu	21.63	18.80	15.94	15.44	16.22	12.62	6.19	2.58	3.32	1.25	0.90	1.85

Table 5.5: Total Expenditure\* on Social and Economic Services as percentage of GSDP

Year	Social Services				Economic Services			
	Kerala*	Kerala**	Major states*	Major states**	Kerala*	Kerala**	Major states*	Major states**
1980 - 1981	8.74	8.98	6.00	6.29	5.79	6.43	7.42	9.58
1985 - 1986	10.92	11.20	7.14	7.34	5.58	6.03	7.53	9.16
1990 - 1991	9.31	9.56	7.49	7.67	5.23	5.96	7.47	8.77
1995 - 1996	6.14	6.35	5.77	5.89	4.06	4.79	5.15	5.78
2000 - 2001	5.84	6.00	6.20	6.39	3.66	3.85	4.94	5.41
2005 - 2006	4.41	4.48	5.27	5.36	3.21	3.33	4.91	5.27
2010 - 2011	4.77	4.85	5.85	5.96	2.70	2.91	4.56	4.75
2016 - 2017	5.10	5.10	6.79	6.84	3.19	3.30	5.40	5.73
*Excluding Loans & Advances								
** Including Loans and Advances								

**Table 5.6: Total Expenditure on Social and Economic Services as percentage of GSDP  
(Excluding Loans and Advances)**

States	Social Services			Economic Services		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	9.13	7.18	4.82	5.45	4.51	2.87
Andhra Pradesh	7.48	6.09	5.00	7.27	6.19	5.25
Gujarat	5.79	5.82	4.72	6.32	6.99	4.21
Karnataka	5.98	6.25	6.20	7.16	6.37	5.76
Maharashtra	4.97	4.80	4.51	6.24	5.22	3.50
Rajasthan	7.46	7.66	6.90	7.14	6.12	5.13
Tamil Nadu	6.89	6.55	5.19	5.66	5.32	3.66

**Table 5.7: Total Expenditure on Social and Economic Services as percentage of GSDP  
(Including Loans and Advances)**

States	Social Services			Economic Services		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001- 02	2002-03 to 2016-17
Kerala	9.35	7.42	4.94	6.07	5.07	3.08
Andhra Pradesh	7.66	6.38	5.35	7.88	7.14	5.39
Gujarat	6.06	5.97	4.74	8.01	7.85	4.40
Karnataka	6.24	6.46	6.34	9.03	7.08	5.87
Maharashtra	5.27	4.96	4.56	7.44	5.75	3.70
Rajasthan	7.64	7.73	6.93	8.52	6.90	5.83
Tamil Nadu	7.37	6.91	5.32	8.38	5.99	4.00

**Table 5.8: Composition of Expenditure\* on Social Services (As percentage of GSDP)**

States	Revenue Expenditure			Capital Expenditure			Capital Outlay		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	8.39	7.13	4.68	0.96	0.42	0.26	0.74	0.21	0.14
Andhra Pradesh	7.32	5.96	4.85	0.34	0.42	0.50	0.17	0.13	0.15
Gujarat	5.38	5.45	4.06	0.67	0.53	0.68	0.41	0.37	0.66
Karnataka	5.84	6.07	4.76	0.41	0.38	1.58	0.14	0.17	1.44
Maharashtra	4.82	4.71	4.36	0.45	0.25	0.21	0.15	0.09	0.15
Rajasthan	6.41	6.80	5.89	1.23	0.93	1.04	1.04	0.86	1.01
Tamil Nadu	6.65	6.33	4.62	0.72	0.58	0.69	0.24	0.22	0.56
* Including loans and advances by the state governments									

**Table 5.9: Composition of Expenditure on Economic Services (As percentage of GSDP)**

States	Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	3.55	3.36	2.14	2.52	1.76	0.94	1.89	1.15	0.73
Andhra Pradesh	4.89	4.62	3.34	3.00	2.51	2.05	2.38	1.57	1.91
Gujarat	4.30	5.33	2.59	3.71	2.52	1.81	2.02	1.66	1.62
Karnataka	4.92	4.53	3.66	4.12	2.55	2.21	2.25	1.84	2.10
Maharashtra	4.30	3.68	2.04	3.14	2.07	1.67	1.95	1.54	1.47
Rajasthan	4.64	4.18	3.65	3.88	2.72	2.18	2.50	1.94	1.48
Tamil Nadu	4.72	4.70	2.48	3.66	1.29	1.52	0.94	0.62	1.18
* Including loans and advances by the state governments									

**Table 5.10: Expenditure\* on Social Services: Education (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	5.28	4.35	2.71	5.19	4.29	2.69	0.09	0.06	0.03	0.09	0.06	0.03
Andhra Pradesh	3.25	2.74	1.93	3.24	2.75	1.92	0.01	0.02	0.03	0.01	0.02	0.02
Gujarat	2.71	2.96	1.96	2.70	2.94	1.87	0.01	0.02	0.10	0.01	0.02	0.10
Karnataka	3.02	3.24	2.42	3.00	3.22	2.39	0.01	0.02	0.05	0.01	0.02	0.05
Maharashtra	2.53	2.76	2.39	2.52	2.75	2.37	0.01	0.01	0.01	0.01	0.01	0.01
Rajasthan	3.46	3.82	3.14	3.44	3.78	3.13	0.02	0.04	0.02	0.02	0.04	0.02
Tamil Nadu	3.29	3.29	2.20	3.25	3.26	2.15	0.04	0.03	0.05	0.04	0.03	0.05
* Including loans and advances by the state governments												

**Table 5.11: Expenditure\* on Social Services: Public Health (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	1.96	1.14	0.72	1.45	1.08	0.69	0.51	0.06	0.04	0.51	0.06	0.03
Andhra Pradesh	1.44	0.86	0.53	1.36	0.85	0.51	0.07	0.01	0.03	0.0007	0.0001	0.0001
Gujarat	1.16	0.76	0.49	1.01	0.74	0.40	0.15	0.01	0.09	0.15	0.01	0.09
Karnataka	1.28	0.95	0.56	1.22	0.90	0.50	0.06	0.05	0.06	0.06	0.05	0.06
Maharashtra	1.31	0.66	0.434	1.27	0.63	0.41	0.04	0.02	0.03	0.04	0.02	0.03
Rajasthan	2.32	1.11	0.73	1.62	1.06	0.68	0.70	0.05	0.05	0.70	0.05	0.05
Tamil Nadu	1.71	0.95	0.53	1.55	0.92	0.49	0.10	0.03	0.04	0.10	0.03	0.04
* Including loans and advances by the state governments												

**Table 5.12: Expenditure\* on Social Services: Housing (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	0.16	0.10	0.07	0.07	0.07	0.04	0.09	0.03	0.04	0.05	0.02	0.01
Andhra Pradesh	0.10	0.17	0.35	0.02	0.06	0.13	0.08	0.10	0.21	0.01	0.01	0.003
Gujarat	0.31	0.24	0.19	0.16	0.16	0.15	0.15	0.08	0.05	0.09	0.05	0.05
Karnataka	0.20	0.21	0.26	0.10	0.15	0.19	0.09	0.06	0.07	0.03	0.02	0.06
Maharashtra	0.24	0.21	0.14	0.15	0.13	0.12	0.09	0.07	0.02	0.04	0.02	0.003
Rajasthan	0.13	0.10	0.03	0.06	0.06	0.02	0.07	0.04	0.02	0.04	0.04	0.01
Tamil Nadu	0.21	0.12	0.20	0.11	0.05	0.11	0.11	0.07	0.10	0.04	0.03	0.08
* Including loans and advances by the state governments												

**Table 5.13: Expenditure on Economic Services: Agriculture & Allied Activities (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	2.19	1.42	0.82	1.92	1.27	0.76	0.27	0.15	0.06	0.22	0.13	0.06
Andhra Pradesh	2.26	0.80	0.60	1.90	0.75	0.59	0.36	0.05	0.02	0.29	0.02	0.01
Gujarat	1.67	0.92	0.55	1.43	0.75	0.47	0.38	0.21	0.08	0.23	0.17	0.08
Karnataka	2.59	1.34	1.22	2.30	1.27	1.20	0.29	0.05	0.02	0.22	0.03	0.02
Maharashtra	2.74	1.50	0.73	2.38	1.27	0.60	0.46	0.22	0.13	0.37	0.20	0.13
Rajasthan	2.05	1.08	0.68	1.71	0.93	0.61	0.34	0.15	0.07	0.21	0.13	0.06
Tamil Nadu	2.77	1.63	0.79	2.49	1.53	0.62	0.28	0.11	0.17	0.26	0.10	0.16
* Including loans and advances by the state governments												

**Table 5.14: Expenditure on Economic Services: Irrigation (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	0.60	0.77	0.24	0.36	0.32	0.13	0.24	0.45	0.11	0.24	0.44	0.11
Andhra Pradesh	1.67	2.19	2.21	1.19	1.15	0.77	0.48	1.04	1.45	0.48	0.98	1.45
Gujarat	1.68	2.57	1.17	1.46	1.48	0.24	0.23	1.13	0.93	0.23	1.10	0.93
Karnataka	1.57	2.14	1.32	1.12	0.81	0.12	0.45	1.33	1.19	0.45	1.28	1.19
Maharashtra	1.10	1.69	1.11	0.82	0.88	0.23	0.28	0.81	0.88	0.28	0.79	0.88
Rajasthan	1.85	2.09	0.80	1.48	1.07	0.42	0.37	1.02	0.38	0.37	0.95	0.38
Tamil Nadu	0.69	0.51	0.31	0.60	0.34	0.17	0.09	0.18	0.14	0.09	0.16	0.14
* Including loans and advances by the state governments												

**Table 5.15: Expenditure on Economic Services: Industry and Minerals (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	0.49	0.52	0.21	0.22	0.24	0.11	0.27	0.27	0.10	0.25	0.19	0.07
Andhra Pradesh	0.40	0.33	0.32	0.18	0.18	0.20	0.22	0.15	0.12	0.20	0.13	0.11
Gujarat	0.37	0.35	0.18	0.27	0.25	0.15	0.17	0.15	0.05	0.10	0.10	0.04
Karnataka	0.84	0.59	0.20	0.52	0.48	0.15	0.31	0.11	0.04	0.48	0.40	0.37
Maharashtra	0.09	0.11	0.13	0.04	0.09	0.12	0.04	0.02	0.01	0.04	0.01	0.003
Rajasthan	0.55	0.34	0.07	0.38	0.21	0.05	0.17	0.20	0.01	0.11	0.09	0.01
Tamil Nadu	0.68	0.43	0.20	0.37	0.32	0.15	0.31	0.11	0.04	0.19	0.05	0.01
* Including loans and advances by the state governments												

**Table 5.16: Expenditure on Economic Services: Transport and Communication (As percentage of GSDP)**

States	Total Expenditure			Revenue Expenditure			Capital Expenditure*			Capital Outlay		
	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17	1980-81 to 86-87	1987-88 to 01-02	2002-03 to 16-17
Kerala	0.98	0.78	0.86	0.57	0.41	0.44	0.42	0.37	0.42	0.42	0.37	0.42
Andhra Pradesh	0.67	0.54	0.48	0.45	0.32	0.24	0.22	0.23	0.25	0.22	0.23	0.25
Gujarat	1.13	0.90	0.80	0.76	0.69	0.49	0.37	0.21	0.31	0.37	0.21	0.31
Karnataka	0.80	0.63	0.95	0.48	0.40	0.37	0.32	0.23	0.58	0.32	0.23	0.58
Maharashtra	0.37	0.59	0.49	0.11	0.31	0.25	0.26	0.27	0.24	0.26	0.27	0.24
Rajasthan	1.16	0.75	0.60	0.50	0.45	0.30	0.67	0.30	0.30	0.67	0.30	0.30
Tamil Nadu	0.81	0.59	0.73	0.62	0.37	0.20	0.19	0.23	0.53	0.19	0.23	0.53
* Including loans and advances by the state governments												

**Table 5.17: Composition of Expenditure on Social Services (%)**

Year	Revenue Expenditure		Capital Expenditure		Capital Outlay	
	Kerala	Major states	Kerala	Major states	Kerala	Major states
1980 - 1981	91.40	90.66	8.60	9.47	5.96	8.20
1985 - 1986	92.15	92.70	7.85	7.35	5.31	8.52
1990 - 1991	94.81	94.12	5.19	6.05	2.61	7.80
1995 - 1996	93.92	93.96	6.08	6.06	2.81	8.09
2000 - 2001	96.09	92.60	3.91	7.49	1.32	10.33
2005 - 2006	96.10	89.75	3.90	10.36	2.17	14.37
2010 - 2011	94.61	90.48	5.39	9.82	3.74	14.41
2016 - 2017	94.86	78.43	5.14	14.79	5.10	NA

**Table 5.18: Composition of Expenditure on Economic Services (%)**

Year	Revenue Expenditure		Capital Expenditure		Capital Outlay	
	Kerala	Major states	Kerala	Major states	Kerala	Major states
1980 - 1981	55.50	48.31	44.50	51.69	34.57	28.89
1985 - 1986	58.75	55.40	41.25	44.60	33.80	26.36
1990 - 1991	62.48	62.58	37.52	37.42	25.37	22.01
1995 - 1996	59.39	64.38	40.61	35.62	25.39	24.72
2000 - 2001	77.84	65.15	22.16	34.85	17.16	26.03
2005 - 2006	82.69	59.17	17.31	40.83	13.47	34.21
2010 - 2011	56.78	64.13	43.22	35.87	36.04	32.49
2016 - 2017	61.44	59.53	38.56	32.78	35.24	31.56

## 6 Analysis of Revenues

Governments require revenue for following reasons/purposes (DFID 2009; Greene 2011; OECD 2016).

- a) To finance government activities, in particular the provision of essential public services for the citizens.
- b) To reduce the need for public borrowing to fund government activities.
- c) To achieve good governance and public financial management. Lower public revenues can cause failure of the state to manage the economy and society.<sup>10</sup>
- d) To fund the delivery of the Millennium Development Goals.
- e) To reduce the dependency on aid, in case of developing countries.
- f) Tax revenue instrument can be used to influence the incentives for work, savings, investment, entrepreneurship, and innovation, thereby promoting economic growth.
- g) Taxes make the governments accountable to their citizens due to the pressure to deliver public services using the revenue collected.
- h) As per the consensus arrived at the United Nations Financing for Development Summit held in Monterrey in 2002 and reiterated at Doha in 2008, developing countries are committed to improve their overall public revenue mobilisation in return for higher flow of international development assistance.
- i) For sub-national governments (SNGs) in a federal system sufficient revenue from their own sources is needed due to following additional reasons (a) fiscal rules often limits their borrowing capacity.; (b) own revenues reduce the dependence of SNGs on

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<sup>10</sup>Evidence show that a healthy tax system represented by higher tax-GDP ratio causes less incidence of conflict (Hendrix 2007).

transfers from the higher-level governments; (c) as opposed to grants, own revenue provides greater freedom in deciding the spending priorities of SNGs, particularly on public services and (d) size of grants from the central government is quite often determined by political factors such as pressure of special interest groups and prevailing political alignment.

### **Sources of government revenue**

The major sources of government revenue are taxes, non-tax revenue, transfers and grants. There are two types of taxes namely direct and indirect. The burden of direct taxes falls directly on the income or assets of physical or legal persons such as corporations and foundations. The best examples of direct taxes are personal income tax, corporate income tax and payroll tax. On the other hand, indirect taxes are levied indirectly on the use of income or assets. Some of the popular examples of indirect taxes are general sales tax, value added tax and excise tax (Greene 2012). Non-tax revenue sources include profits of public sector enterprises, income from government-owned property, land leases or fees tied to the value of natural resources such as coal and oil and administrative or user fees (Greene 2012).<sup>11</sup>

SNGs receive funds from the national government in two forms: (i) a share of own revenues mobilised by the national government, called transfers and (ii) grant-in-aid (Greene 2012). Grants are financial support made in support of some worthy cause or to carry out specific programmes or in return for fulfillment of some conditions. They are usually given, with the aim of making the beneficiaries to provide more of a desired good or service than they

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<sup>11</sup> User or administrative fees are charges imposed by the government on the use of public services and public property by the citizens. General examples are fees on higher education services provided by government run education institutions, tolls for highways and bridges, and entry fees for public parks and museums. User fees are generally imposed to enable the government to recover the cost of publicly provided goods and services and to reduce congestion on public infrastructure (e.g. highway tolls).

would otherwise.<sup>12</sup> The key purpose of the two channels of resource flows namely transfers and grants is to help the SNGs to overcome the gap between their spending needs and own revenues – called vertical imbalance, which emerge due to higher spending pressure on SNGs compared to the national government (OECD 2016).<sup>13</sup>

Total revenue receipts of the states in India consists of own revenue receipts and transfers from central government. The former comprises states' own tax and non-tax revenues and the latter is the combination of states' share in central taxes and grant-in-aid from the centre.

### **Performance of revenues in Kerala**

Figures 6.1 to 6.5 present long-term trends in various sources of revenues of Kerala and major states put together as a percentage of state GSDP. The total revenue of Kerala as percentage of GSDP had declined overtime and this was caused by decline in revenues from both own revenue (both tax and non-tax) sources of the state and central transfers. Kerala has been receiving lower central transfers compared with the average level of transfers received by major states. Also, although central transfers as percentage of GSDP has been consistently rising for major states on an average basis since 1995-96, in case of Kerala it has been fluctuating.

The major contributor to states' own revenues is tax revenues (Figures 6.6 and 6.7). For most part of the period from 1980-81, both own tax revenues and own non-tax revenues of Kerala witnessed a falling trend. For major states as a whole similar trend was witnessed only in case of non-tax revenue. However, two remarkable aspects of Kerala's own revenue mobilisation are notable. First, Kerala's own tax revenue to GSDP ratio was always higher than

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<sup>12</sup>Apart from SNGs, the national governments also receive grants from international aid institutions and foreign governments (Greene 2011).

<sup>13</sup> Since the expenditure intensive responsibilities in areas such as education, health, rural development and law and order usually come under the purview of the SNGs, the resource needs of SNGs are generally larger.

the average of major states (Figure 6.4).<sup>14</sup> Second, since the second half of the last decade<sup>15</sup>, own non-tax revenues of Kerala has increased consistently as percentage of GSDP.

Tables 6.1 and 6.2 present revenue performance of Kerala and comparable states under the three growth phases. As percentage of GSDP, total revenue of Kerala has declined significantly during the phases of moderate and accelerated economic growth. And this was due to the decline in both own revenue and central transfers. Similar trend was witnessed in the comparable states as well. However, among all the comparable states, Kerala has witnessed the largest decline in total revenues and own tax revenues to GSDP ratio during the accelerated phase of economic growth. Whereas total revenues to GSDP ratio fell by 3.15 percentage points in case of own tax revenues the same figure was 1.43. The decline in own revenue to GSDP ratio of Kerala and all the comparable states (except Rajasthan) during the accelerated economic growth phase was contributed by both own tax revenue and own non-tax revenue. Among comparable states, Kerala has witnessed the largest fall in own tax revenues to GSDP ratio during the accelerated phase of economic growth.

### **Composition of own tax revenues in Kerala**

States receive their own tax revenues from sales tax/value added tax (VAT), state excise, stamps and registration fees, motor vehicle tax, and other sundry taxes like agricultural income tax, land revenue, profession tax, property tax, electricity duty, and entertainment tax. Over the years, a lion's share (87.52 to 93.03 percent) of revenue received from Kerala's own tax revenue source consisted of taxes on commodities and services (Table 6.3). The remaining portion was contributed mainly by taxes on property and capital transactions. The contribution of tax on income (mainly agricultural income tax) was not only minuscule but also declined

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<sup>14</sup> It was higher to the maximum extent of 2.27 percentage points in 1995-96.

<sup>15</sup> To be precise, from 2005-06 in case of own tax revenues and from 2007-08 in case of non-tax revenue.

over the years. For major states as a whole, similar pattern of own tax revenue mobilisation was evident.

Among the taxes on commodities and services, the major ones in order of their contribution to own tax revenue in Kerala are: sales tax/value added tax (VAT), state excise duties, motor vehicle tax and electricity duty (Table 6.4). Of these, the share of sales tax/VAT, by and large, moved upward overtime. On the other hand, the contribution of state excise duties declined consistently and sharply over the years from 19.38 per cent in 1980-81 to 5.10 per cent in 2016-17. This is in contrast to the trend witnessed in the major states put together. Notably, the contribution of sales tax/VAT to own tax revenues was larger in Kerala by over 10 percentage points in many years compared to the average of major states.

Within taxes on property and capital transactions, the major contribution has come from stamps and registration fees (Table 6.5). Though the contribution of this tax revenue source to Kerala's own tax revenue was by and large rising since 1980-81, during the first half of the current decade the contribution has declined significantly. This is a major cause for concern because in a state which has been witnessing a property/real estate boom this tax source is expected to contribute meaningfully to state's own revenue resources. Interestingly, no such drop in the contribution of stamps and registration fees was reported in major states as a whole during the same period.

### **Growth of major own tax revenue sources in Kerala**

Table 6.6 presents the growth rate of major own tax revenue sources of Kerala and comparable states during the three economic growth phases. It is revealed that except stamps and registration fees, the growth of all major own tax revenue sources namely sales tax/VAT, state excise duties and motor vehicle tax has declined in Kerala during the period of accelerated economic growth compared with the period of economic stagnation. In fact, the growth of

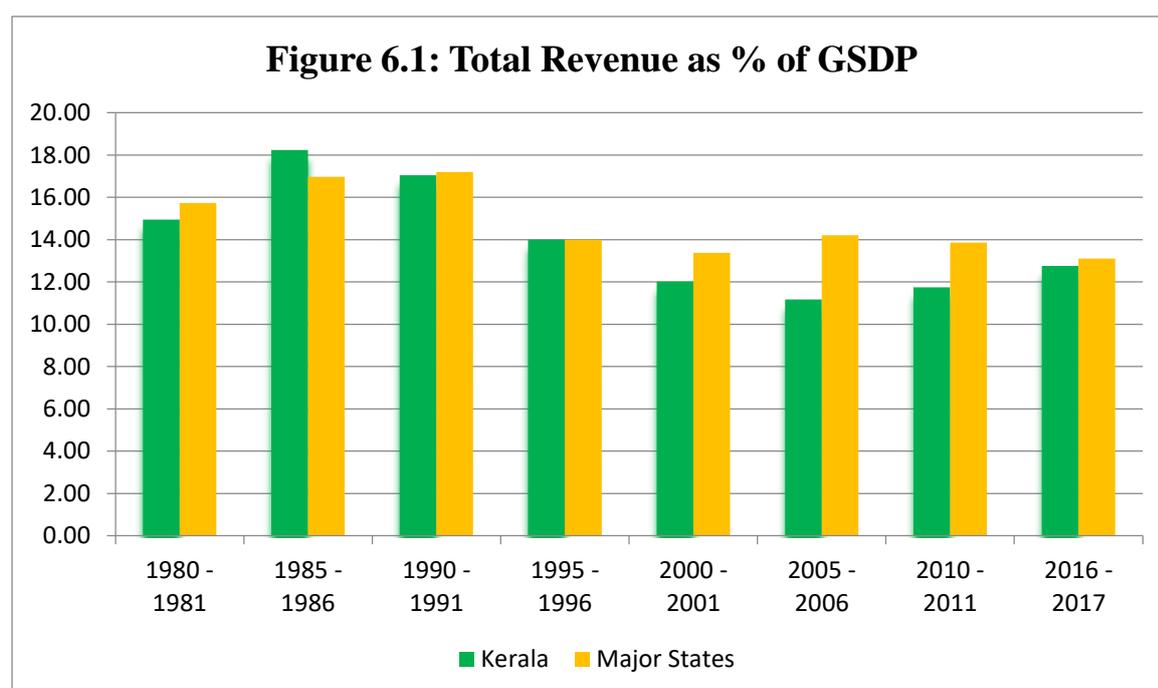
revenue from these three taxes has fallen consistently overtime in Kerala. The only other states which witnessed a decline in the growth of revenue from majority of the major own tax handles during the accelerated economic growth phase are Andhra Pradesh and Rajasthan.

Table 6.7 presents buoyancy of own tax revenue for Kerala and comparable states. With the exception of Gujarat, in all the comparable states buoyancy estimates are less than unity during the phase of accelerated economic growth implying that tax revenue performance of Kerala and majority of the comparable states was not productive or buoyant during the time of high economic growth. Interestingly, the only occasion in which tax buoyancy estimates were greater than unity in all the comparable states was the period of economic stagnation. In three states namely Andhra Pradesh, Karnataka and Tamil Nadu buoyancy estimates declined consistently over the three phases of economic growth considered in this study.

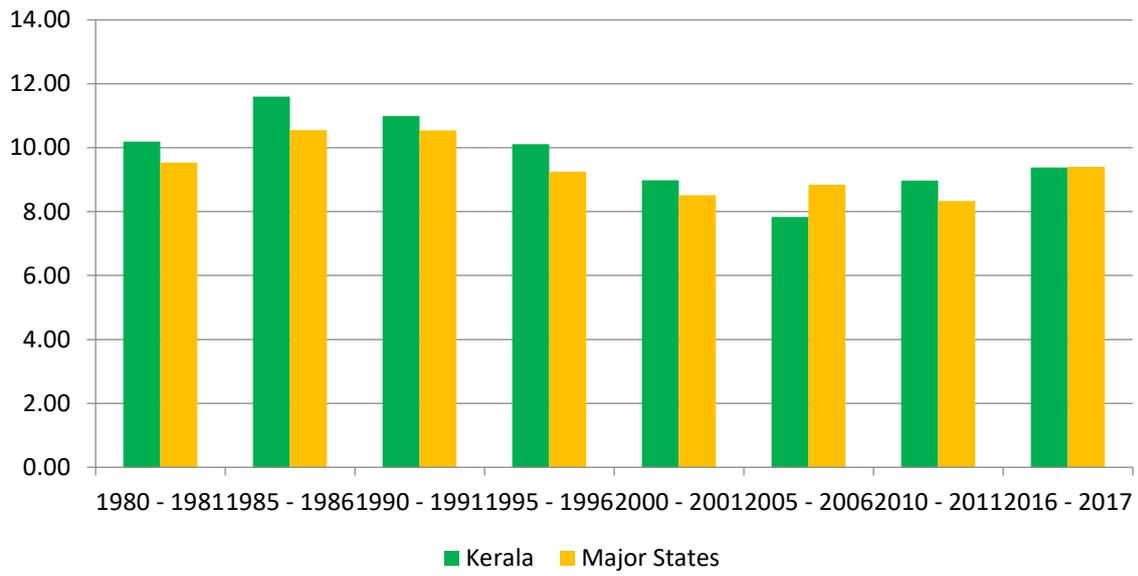
### **Composition of own non-tax revenues in Kerala**

The principal sources of own non-tax revenues of the states are (i) dividends and profits on equity investments in state public sector enterprises (PSEs) and statutory corporations, and interest receipts on loans rendered to the same; (ii) user charges on various social and economic goods/services provided by the states; (iii) royalty on mines and minerals; (iv) forest revenue (both under economic services) and (v) general services (mainly state lotteries). Table 6.8 presents the composition of own non-tax revenues of Kerala and major states as a whole. It is striking that revenue through dividends and profits contribute virtually nothing to state's exchequer. Such a trend is unwarranted considering the huge amount of budgetary funds of states locked in PSEs and statutory corporations. The only manner public sector units help the states appear to be the payment of interests on loans and advances taken by them from the state government. But this too has declined in Kerala and major states put together overtime. However, in the major states as a whole the share of interest receipts in the total non-tax revenue was far higher than in Kerala (See Table 6.8). Though general services and economic services

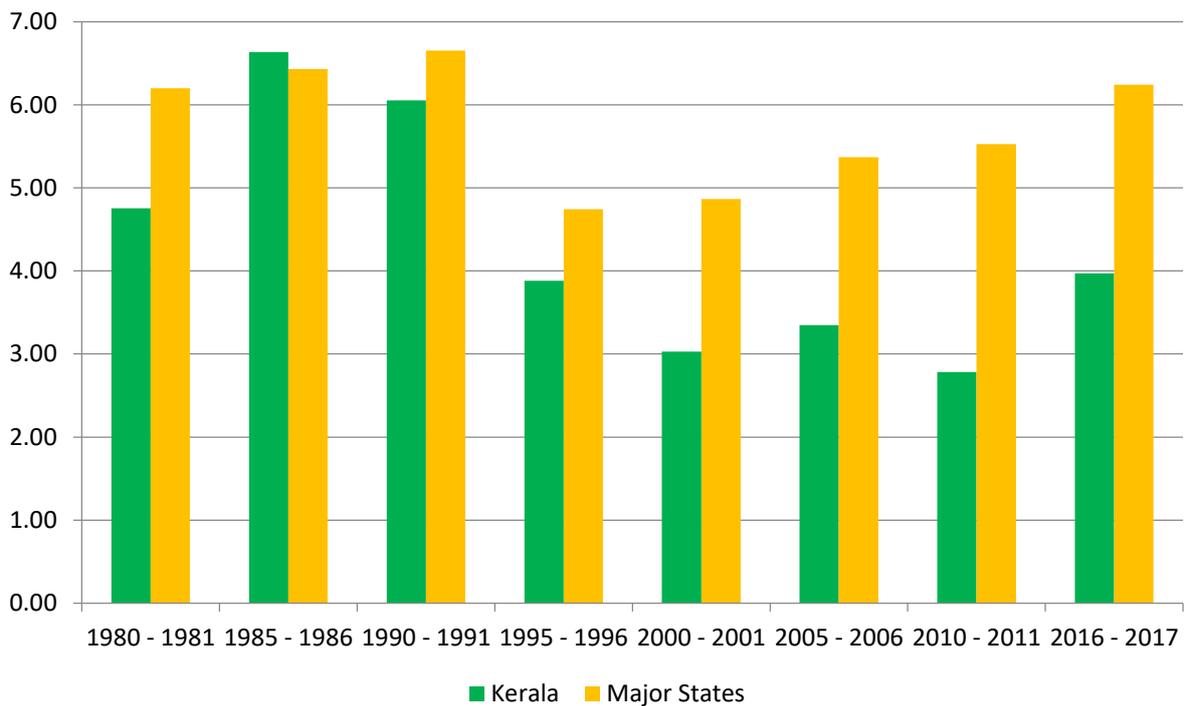
constituted significant part of own non-tax revenues mobilised in Kerala over the years, a notable trend has been the consistent fall in the share of economic and social services and rise in the share of general services. The share of receipts from economic services decelerated sharply from 60.57 per cent of the non-tax revenue of the state in 1980-81 to 42.46 per cent in 2000-01 to 10.72 per cent in 2016-17 (Table 6.8). In case of social services, the share declined from 16.45 per cent in 1980-81 to 6.01 per cent in 2016-17. On the other hand, the share of general services (i.e. revenue from sale of state lotteries) increased from 13.40 per cent in 1980-81 to 38.39 per cent in 2000-01 to a whopping 80.49 per cent in 2016-17. Interestingly, the opposite trend was witnessed in major states as a whole, i.e. the share of non-tax revenue from economic and social services have risen over the years. These findings suggest that, compared with the major states as a whole, in Kerala user charges on public goods and services are either fixed at low levels or not revised commensurate with the rising cost of supplying the goods and services.



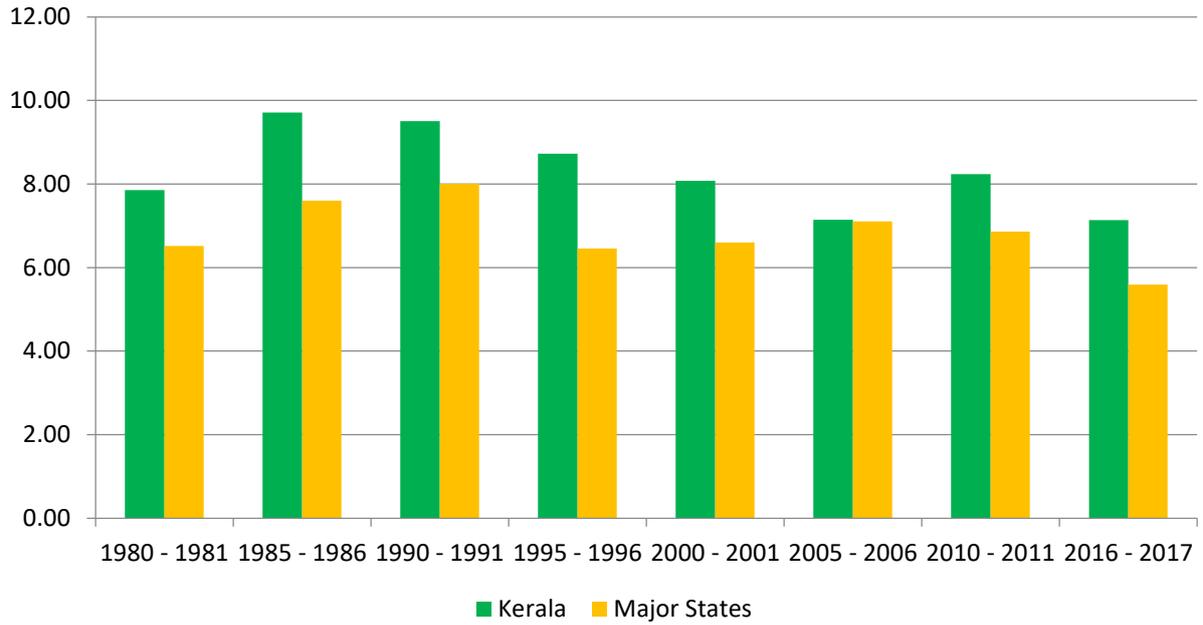
**Figure 6.2: Own revenues as % of GSDP**



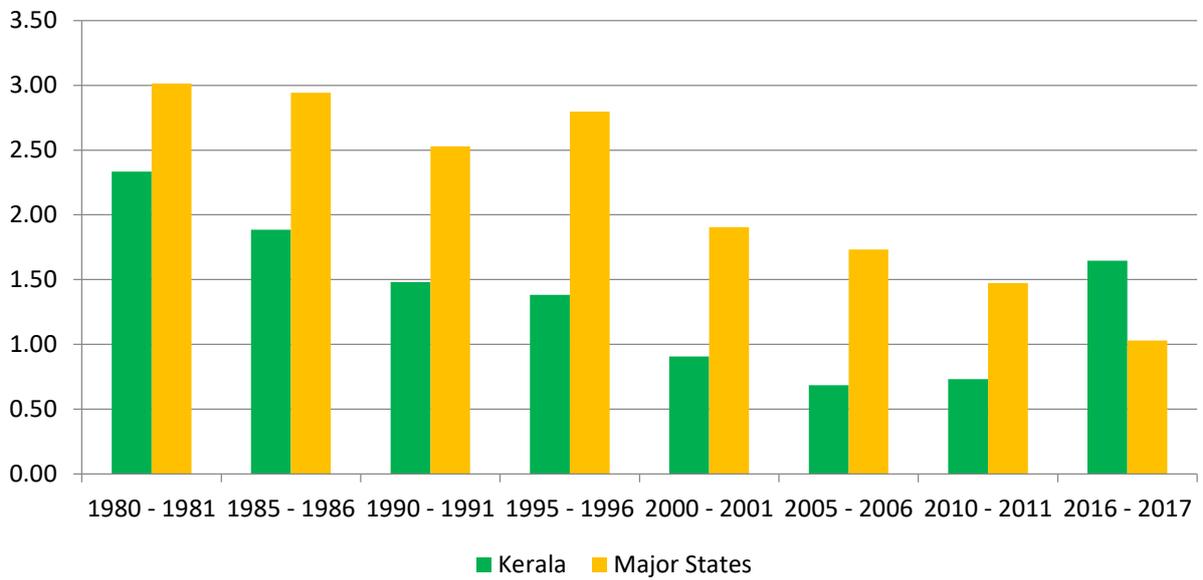
**Figure 6.3: Central Transfers as % of GSDP**



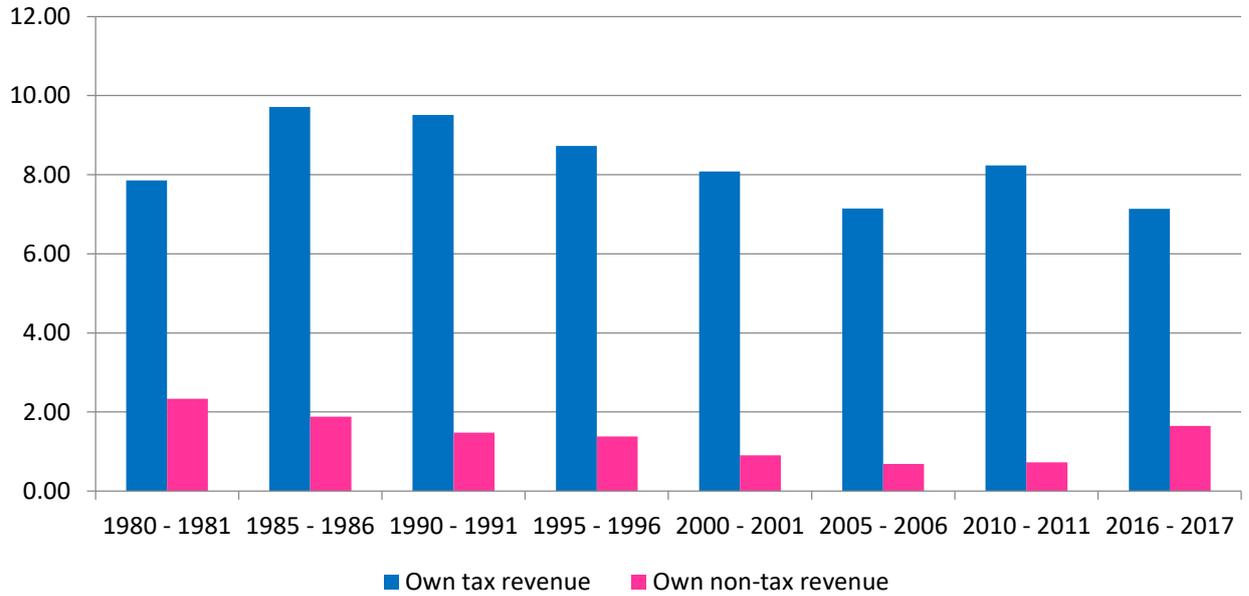
**Figure 6.4: Own tax revenue as % of GSDP**



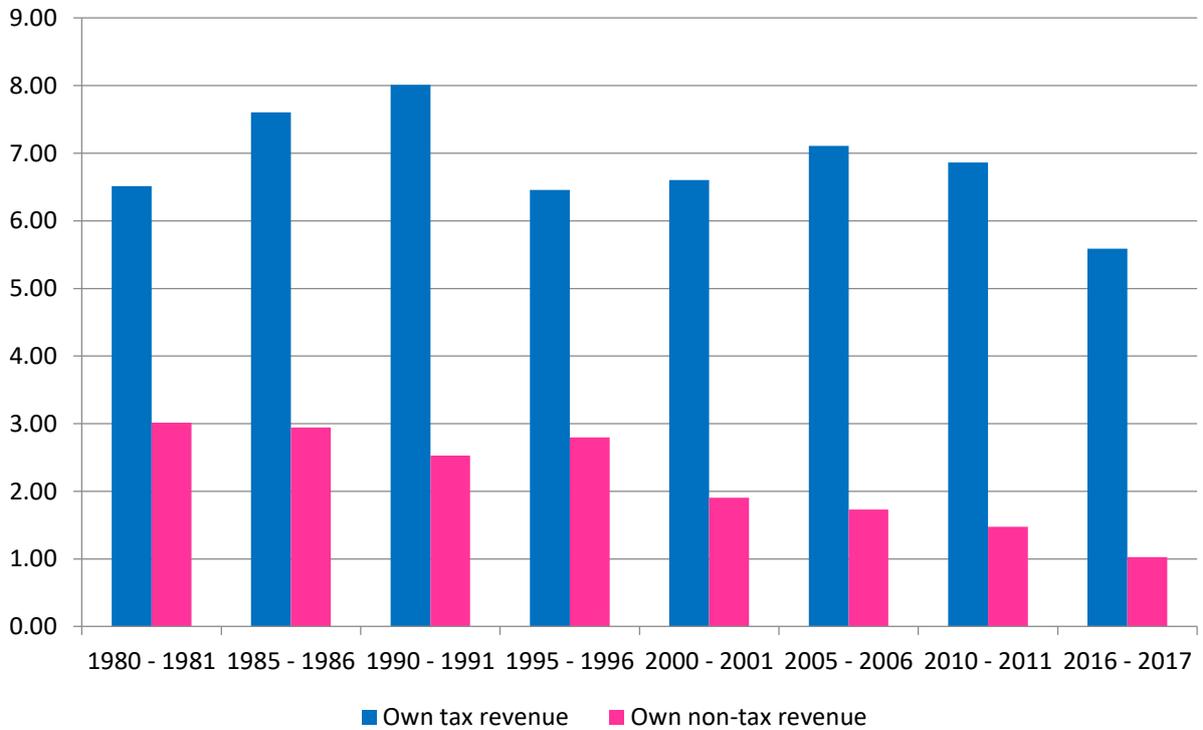
**Figure 6.5: Own non-tax revenue as % of GSDP**



**Figure 6.6: Own tax and Non-tax revenues of Kerala as percentage of GSDP**



**Figure 6.7: Own tax and Non-tax Revenues of Major States as percentage of GSDP**



**Table 6.1: Total Revenue, Own Revenue and Central Transfers as percentage of GSDP**

States	Total Revenue			Own Revenue			Central Transfers		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	16.48	14.71	11.57	11.03	10.19	8.54	5.45	4.53	3.12
Andhra Pradesh	16.34	14.49	11.57	10.68	9.50	8.71	5.66	4.99	4.11
Gujarat	13.22	13.46	10.41	9.91	10.68	8.04	3.31	2.79	2.44
Karnataka	16.25	15.09	13.55	11.70	11.02	10.13	4.56	4.07	3.73
Maharashtra	13.83	11.93	10.07	10.83	9.68	8.09	3.00	2.25	2.07
Rajasthan	16.19	15.54	14.40	9.46	8.93	8.83	6.73	6.61	5.95
Tamil Nadu	16.27	14.23	12.32	11.16	10.16	9.04	5.10	4.06	3.37

**Table 6.2: Own Tax Revenue and Own Non-tax Revenue as percentage of GSDP**

States	Own Tax Revenue			Own Non-Tax Revenue		
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	8.58	8.93	7.51	2.45	1.25	0.94
Andhra Pradesh	8.12	7.29	6.74	2.57	2.21	1.62
Gujarat	7.40	8.03	6.62	2.51	2.64	1.35
Karnataka	8.46	9.03	8.67	3.24	1.99	1.14
Maharashtra	7.79	7.47	6.93	3.04	2.21	1.06
Rajasthan	5.96	6.05	6.50	3.51	2.87	1.96
Tamil Nadu	9.42	8.85	7.82	1.75	1.31	0.98

**Table 6.3: Composition of Own Tax Revenues**

Year	Taxes on Income (Agricultural Income Tax)		Taxes on Property and Capital Transactions		Taxes on Commodities and Services	
	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*
1980 - 1981	3.36	0.95	8.66	9.26	87.89	89.79
1985 - 1986	2.85	0.99	7.29	9.06	89.86	89.96
1990 - 1991	1.79	1.24	10.22	9.84	87.99	88.91
1995 - 1996	0.77	0.86	11.39	11.52	87.84	87.61
2000 - 2001	0.07	1.28	6.91	9.94	93.03	88.78
2005 - 2006	0.06	0.95	12.19	13.07	87.75	85.98
2010 - 2011	0.22	0.72	12.26	12.81	87.52	86.47
2016 - 2017	0.02	0.58	8.13	12.82	91.85	94.64

\* Excluding Kerala

**Table 6.4: Taxes on Commodities and Services (As percentage of Own-Tax Revenue)**

Year	Sales tax		State Excise		Tax on Vehicles		Taxes and Duties on Electricity	
	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*
1980 - 1981	60.60	57.69	19.38	12.32	5.95	6.22	1.92	4.17
1985 - 1986	62.75	56.57	14.25	14.45	6.45	6.08	6.33	5.20
1990 - 1991	66.96	56.49	13.09	16.69	5.53	5.48	2.28	4.67
1995 - 1996	67.58	53.87	13.28	14.50	6.59	6.54	0.22	4.50
2000 - 2001	74.01	60.33	11.74	14.00	6.73	6.05	0.25	4.10
2005 - 2006	71.97	59.20	8.60	11.81	6.43	6.01	0.32	4.16
2010 - 2011	72.89	59.98	7.82	13.17	6.13	5.31	0.10	3.85
2016 - 2017	78.55	66.40	5.10	13.46	7.12	5.56	0.48	4.01

\* Excluding Kerala

**Table 6.5: Taxes on Property and Capital Transactions (As percentage of Own Tax-Revenue)**

Year	Land Revenue		Stamps, Registration Fee		Urban Immovable Property	
	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*
1980 - 1981	0.95	2.55	7.68	6.61	0.03	0.10
1985 - 1986	0.80	2.81	6.33	6.19	0.15	0.05
1990 - 1991	0.83	2.69	9.10	7.07	0.29	0.08
1995 - 1996	0.70	2.40	10.46	9.04	0.23	0.08
2000 - 2001	0.67	1.46	5.81	8.41	0.43	0.07
2005 - 2006	0.45	1.50	11.26	11.55	0.48	0.02
2010 - 2011	0.26	1.84	11.75	10.82	0.25	0.16
2016 - 2017	0.41	1.69	7.37	10.92	0.35	0.21
* Excluding Kerala						

**Table 6.6: Growth of Major Own Tax Revenue Sources (%)**

States	Sales tax/VAT			State Excise			Tax on Vehicles		Stamps, Registration Fee			
	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17	1980-81 to 1986-87	1987-88 to 2001-02	2002-03 to 2016-17
Kerala	16.80	16.74	15.46	12.88	12.35	10.29	19.30	17.67	14.91	12.96	12.22	13.96
Andhra Pradesh	20.08	16.91	12.42	20.19	3.26	9.42	16.83	15.54	7.60	13.15	16.99	10.48
Gujarat	14.01	13.40	17.25	9.45	11.63	10.10	14.31	18.84	10.62	8.72	16.86	18.81
Karnataka	17.85	15.26	16.31	13.85	14.58	16.80	17.74	11.21	16.33	14.20	17.54	14.83
Maharashtra	14.24	13.86	14.30	17.95	14.27	16.75	13.54	14.48	15.75	19.47	23.25	16.81
Rajasthan	16.28	14.84	18.00	34.16	17.39	15.16	38.04	15.54	13.04	14.21	19.68	15.59
Tamil Nadu	15.57	15.22	15.86	49.31	21.41	10.44	10.25	11.10	15.24	16.88	15.43	17.79

**Table 6.7: Buoyancy of Own Tax Revenue**

States	1980-1981 to 1986-1987	1987-1988 to 2001-2002	2002-2003 to 2015-2016
Kerala	1.30	0.88	0.91
Andhra Pradesh	1.49	0.87	0.72
Gujarat	1.08	0.88	1.00
Karnataka	1.19	0.91	0.87
Maharashtra	1.27	0.91	0.94
Rajasthan	1.29	0.92	0.96
Tamil Nadu	1.24	0.95	0.88

**Table 6.8: Composition of Own Non-Tax Revenue (%)**

Year	Interest Receipts		Dividends & Profits		General Services		Social Service		Economic Services	
	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*	Kerala	Major States*
1980 - 1981	8.95	33.26	0.63	1.46	13.40	15.97	16.45	8.70	60.57	44.92
1985 - 1986	17.00	28.94	0.46	1.66	17.63	13.84	18.30	10.14	46.62	48.29
1990 - 1991	10.26	27.19	1.29	1.93	40.15	19.27	14.89	6.86	33.41	47.15
1995 - 1996	18.73	29.70	1.08	1.76	25.11	27.19	11.38	5.64	43.69	39.85
2000 - 2001	5.59	34.08	1.92	5.02	38.39	18.57	11.65	8.02	42.46	40.23
2005 - 2006	4.95	24.47	1.94	4.07	44.47	20.49	13.30	10.76	35.34	45.07
2010 - 2011	8.88	20.84	3.91	2.96	49.32	18.05	11.98	13.58	25.91	49.33
2016 - 2017	1.52	14.90	1.26	2.18	80.49	17.59	6.01	22.18	10.72	78.44
* Excluding Kerala										

## 7 Summary and Recommendations

In this chapter we first summarise the key findings from the analysis of fiscal imbalances, expenditure management and revenue performance. Next we generate some projections of the future outlook on Kerala's finances. Finally we make several recommendations that may help the state to improve its fiscal performance.

### **Fiscal Imbalances: Summary of findings**

Kerala's Debt-GDP ratio is the third highest among the comparable states (after Andhra Pradesh and Rajasthan) in the third phase of accelerated growth (2002-03 to 2016-17). It is noteworthy that Kerala's neighbouring states of Tamil Nadu and Karnataka have been able to control their debt at around 20 per cent of GDP while Kerala's average debt level over this phase at over 32 per cent of GDP is far above the 14<sup>th</sup> Finance Commission's recommended level of 25 per cent. Although the debt ratio has been coming down over the years, it is currently at 27.36 per cent that is considerably higher than the 13 other major states of India for whom the average figure stands at 23 per cent.

One of the major consequences of having a high debt ratio is the outflow in terms of interest payments. Kerala's Interest payments to Revenue receipts ratio in the third phase of growth (at 20.2 per cent) is the next highest only to Gujarat (20.8 per cent). Within the third phase, Kerala's IP/RR has been coming down but at 15 per cent in 2016-17 is considerably higher than the average figure for 13 major states (12.7 per cent).

Kerala's gross fiscal deficit is not too high compared with other states but what is of more serious concern is the quality of the deficit. While the comparison states managed to bring down their revenue deficit in the third phase of accelerated growth, Kerala's revenue deficit remained above 2 per cent. In fact the major states on an average show a revenue balance in 2016-17 while Kerala's revenue deficit remains rather high at 1.50 per cent in the last year.

Moving to another measure of the quality of deficit, the share of capital outlays as a percentage of gross fiscal deficit for Kerala was 47.86 per cent compared to 86.87 per cent for the average of 13 states. Kerala's revenue expenditure as percentage of GDP (14.17 per cent in 2016-17) is higher than the average figure for 13 states (13.50 per cent in 2016-17). Finally with respect to the composition of outstanding liabilities, the share of provident funds for Kerala is close to 30 per cent over the second and third phases. This is in complete contrast with the comparison states where the share of provident funds has mostly come down. While all other components of outstanding liabilities are lower for Kerala in 2015-16 as compared with the average for the 13 major states, the share of provident funds (25 per cent) is more than twice that of the average for the 13 states (11.32 per cent).

### **Expenditure Management: Summary of findings**

A lion's share of public expenditure in Kerala consists of current expenditure. The share of capital expenditure and outlay has declined overtime. Also, over the years, share of capital outlay was lower in Kerala than major states as a whole. The key reason for the higher share of revenue expenditure in Kerala has been the larger expenditure commitment on salaries and pensions and interest payments. Significantly, as percentage of revenue expenditure, at present Kerala has highest salary and pension burden among the comparable states.

The total public expenditure of Kerala has declined overtime as a percentage of state GDP due to cut in both revenue expenditure and capital expenditure and outlay. In contrast, majority of the comparable states curbed total expenditure without compromising on capital outlay. Kerala spends disproportionately more on social services than economic services. As percentage of GSDP, the total expenditure on social and economic services has declined significantly in Kerala overtime, including during the phase of high economic growth from 2002-03. Similar trend was evident among the comparable states and the major states as a

whole. However in Kerala, contrary to the trends in the comparable states, the expenditure on capital formation in the crucial social services has declined both during moderate and accelerated economic growth phases.

As percentage of GSDP the total expenditure incurred by Kerala on several social and economic services namely education, public health, housing, agriculture and allied activities, irrigation, and industry and minerals has declined during the phase of accelerated economic growth. With the exception of housing, similar trend was witnessed in the case of comparable states as well. As regards the expenditure on capital formation in these individual heads, it has declined during the phase of accelerated economic growth in Kerala. In the comparable states as well this trend was registered with the exception of education and public health. The capital expenditure and outlay on education and public health has increased in the comparable states, by and large, during the accelerated economic growth period.

A lion's share of expenditure on social services in Kerala and major states as a whole consists of current expenditures. However, in the case of economic services the share of capital expenditure and capital outlay was much higher both in Kerala and major states put together. Also, since the second half of the last decade the share of capital outlay on economic services has increased significantly in Kerala.

### **Revenue Performance: Summary of findings**

Total revenues of Kerala experienced a declining trend as percentage of state GSDP overtime. All components of revenues of Kerala and comparable states (except own tax revenues in case of Rajasthan) namely own tax revenues, own non-tax revenues and central transfers have declined significantly as percentage of GSDP during the accelerated economic growth phase compared with the phase of moderate economic growth. This result suggests that relative to states' economic progress and increase in revenue base namely GSDP, the revenue

performance of Kerala and comparable states have not improved. This is a serious cause for concern. Among comparable states, as percentage of GSDP, Kerala witnessed largest decline in total revenues and own tax revenues during accelerated economic growth phase.

An analysis of composition of Kerala's own tax revenue reveals that only a handful number of tax handles contribute to public revenue mobilisation in the state meaningfully. They include sales tax/value added tax, state excise duties, motor vehicle tax, and stamps and registration fees. However, the huge drop in the share of state excise duties and stamps and registration fees in the own tax revenues over the years and in the recent past respectively is a serious cause for concern.

All major own tax revenue sources namely sales tax/VAT, state excise duties and motor vehicle tax grew at a lower rate in Kerala during the phase of accelerated economic growth compared with the phase of economic stagnation. Moreover, the buoyancy of own tax revenue was lower than the desired level in Kerala during the phase of economic stagnation as well as the phase of accelerated economic growth.

Regarding non-tax revenue mobilization, the major concerns facing Kerala are negligible contribution by way of dividends and profits from state public sector enterprises and consistently falling contribution from economic and social services.

### **Future Scenario**

Give the current state of affairs we attempted to generate projections of Kerala's public finances over the coming years which would give us a glimpse into what lies ahead. For this purpose we created several scenarios in order to study the possible trajectories of the key expenditure, receipts and deficit variables in the future. We begin with our baseline projections which are based on the assumption that all the variables will grow at the same rate that they have been exhibiting in the third phase of growth i.e. 2002-03 to 2016-17. In other words we

computed the CAGR of each variable during this phase and assumed that the variables would grow at this rate in the future too (except for share in central taxes and grants from centre which exhibited a surge in 2015-17 and 2016-17 respectively due to a change in the devolution model – in these cases we computed the CAGR till the year before the change in the devolution model). The baseline projections of key variables are presented below in Table 7.1. We can see that the revenue deficit will eventually disappear if things ‘go on as usual’ but will take a long time i.e. till 2030 before that happens. Fiscal deficit would remain at the current level of 3.1 per cent in 2030 but this is not a scenario that the state would like to see itself in because the deficit would keep adding to the debt and squeezing the fiscal space for capital spending.

**Table 7.1: Baseline projections (business as usual scenario)**

Year	Revenue Exp.	Own Tax Revenue	Share in Central Tax	Own Non Tax Revenue	Grants from Centre	GSDP	Revenue Deficit (% of GSDP)	Capital Outlay	Net Lending	Fiscal Deficit (% of GSDP)
Assumption	CAGR 14.99%	CAGR 14.76%	CAGR 13.8%	CAGR 23%	CAGR 13%	CAGR 14.4%	As per defn.*	CAGR 21.2%	CAGR 9%	As per defn.#
2017-18	108082	53986	17328	13365	12201	758863	1.48	11603	581	3.08
2018-19	124287	61952	19721	16448	13796	868117	1.42	14063	633	3.12
2019-20	142921	71094	22445	20243	15599	993101	1.36	17045	691	3.15
2020-21	164349	81585	25545	24913	17638	1136079	1.29	20660	753	3.18
2021-22	188990	93624	29073	30661	19944	1299642	1.21	25041	821	3.20
2022-23	217325	107439	33089	37734	22552	1486753	1.11	30351	895	3.21
2023-24	249909	123294	37659	46440	25500	1700803	1.00	36787	976	3.22
2024-25	287378	141487	42860	57154	28833	1945671	0.88	44588	1064	3.22
2025-26	330464	162366	48780	70339	32603	2225792	0.74	54043	1160	3.22
2026-27	380011	186325	55517	86567	36865	2546242	0.58	65503	1265	3.20
2027-28	436985	213820	63185	106538	41684	2912828	0.40	79393	1379	3.18
2028-29	502503	245373	71912	131117	47134	3332192	0.21	96229	1504	3.14
2029-30	577843	281581	81844	161367	53295	3811933	-0.01	116635	1640	3.10

\* Revenue deficit projections are calculated (as per definition) as revenue expenditure minus sum of all revenue receipts as percentage of GSDP

# Fiscal deficit projections are calculated (as per definition) as the sum of revenue deficit, capital outlays and net lending as percentage of GSDP

Next we generate projections for a different scenario which is based on the assumption that the variables will continue to grow at the same rate at which they have grown in the past five years. This scenario considers the CAGR computed for the last five years to be more realistic for projecting the future than the last fifteen years as was done in the baseline projections above. As before, in the case of share in central taxes and grants from centre, we computed the CAGR till the year before the change in the devolution model. The results are shown in Table 7.2. The results show that the revenue deficit gallops to over 3 per cent in a short span of five years while the fiscal deficit crosses 5 per cent in 2022. This scenario would be extremely damaging to the state's finances and needs to be avoided. Therefore the state certainly cannot afford to carry on with the trends of the past five years and needs to urgently boost revenues and cut down on the growth in expenditure.

**Table 7.2: Pessimistic projections (worst case scenario)**

Year	Revenue Exp.	Own Tax Revenue	Share in Central Tax	Own Non Tax Revenue	Grants from Centre	GSDP	Revenue Deficit (% of GSDP)	Capital Outlay	Net Lending	Fiscal Deficit (% of GSDP)
Assumption	CAGR 15.4%	CAGR 11.8%	CAGR 7.6%	CAGR 26.7%	CAGR 6.6%	CAGR 12.5%	As per defn.*	CAGR 20.8%	CAGR -18.8%	As per defn.#
2017-18	108435	52593	16389	13763	11503	746541.17	1.90	11501	433	3.50
2018-19	125100	58796	17641	17443	12263	840155.28	2.26	13818	351	3.94
2019-20	144325	65731	18990	22108	13074	945508.32	2.58	16601	285	4.37
2020-21	166506	73484	20441	28019	13938	1064072.32	2.88	19944	232	4.77
2021-22	1251927	82152	22003	35511	14859	1197504	3.14	23961	188	5.15

\* Revenue deficit projections are calculated (as per definition) as revenue expenditure minus sum of all revenue receipts as percentage of GSDP

# Fiscal deficit projections are calculated (as per definition) as the sum of revenue deficit, capital outlays and net lending as percentage of GSDP

Finally we generate projections for a scenario where the revenue deficit gets wiped out in a year's time. This is based on a modification of the baseline projections where we assume that own tax revenue growth and non tax revenue growth can be raised by a modest 2 per cent while growth in revenue expenditure can be cut by a modest 2 per cent. The results are shown in Table 7.3. The results show that the revenue deficit will disappear by 2020-21 while the fiscal deficit will slip below 2 per cent. This is even after leaving scope for capital outlays to grow by additional 5 per cent compared to the baseline projections.

**Table 7.3: Optimistic projections (best case scenario)**

Year	Revenue Exp.	Own Tax Revenue	Share in Central Tax	Own Non Tax Revenue	Grants from Centre	GSDP	Revenue Deficit (% of GSDP)	Capital Outlay	Net Lending	Fiscal Deficit (% of GSDP)
Assumption	CAGR 14.99% reduced to 12.99%	CAGR 14.76% increased to 16.76%	CAGR 13.8%	CAGR 23% increased to 25%	CAGR 13%	CAGR 14.4%	As per defn.*	CAGR 21.2% increased to 26.2%	CAGR 9%	As per defn.#
2017-18	106202	54926	17328	13582	12201	758863	1.08	12082	581	2.74
2018-19	120001	64130	19721	16987	13796	868117	0.62	15248	633	2.45
2019-20	135593	74876	22445	21246	15599	993101	0.14	19243	691	2.15
2020-21	153210	87423	25545	26572	17638	1136079	-0.35	24286	753	1.85

\* Revenue deficit projections are calculated (as per definition) as revenue expenditure minus sum of all revenue receipts as percentage of GSDP

# Fiscal deficit projections are calculated (as per definition) as the sum of revenue deficit, capital outlays and net lending as percentage of GSDP

But how can the state aspire for this best case scenario or at least come close to it? In the next section we make several suggestions which can reverse the direction of Kerala's finances and bring it close to an optimistic trajectory where revenue account will show a surplus that can help the fiscal deficit to also come down in spite of a boost in capital spending that is urgently required for the state to improve its long term productivity and growth.

## **Recommendations for rationalising expenditure**

1) Sound public expenditure management requires the governments to devote a major part of their spending to capital asset creation, called capital expenditure and lesser part to unproductive current expenditures such as (poorly targeted) subsidies and military expenditures (Greene 2012). Contrary to this general principle, a substantial portion of public expenditure in Kerala consists of current expenditure. Also, the expenditure on capital formation in several social and economic services namely education, public health, housing, agriculture and allied activities, irrigation, and industry and minerals has declined during the phase of accelerated economic growth. This is certainly not a healthy trend as sufficient amount of capital spending is also required to ensure adequate physical and social infrastructure to support economic activities. It has been estimated that governments in the fast growing countries including some Asian countries ideally spend around 5 to 8 per cent of GDP on physical infrastructure and human capital development (CGD 2008). Considering this level, the amount spend by Kerala on capital asset creation is highly inadequate. Hence there is an urgent need for increasing the share of capital expenditure and outlay in the total expenditure, including in the social sector especially in view of the demand-supply mismatch in social services such as education and health care. Higher capital spending would also be required to address the host of emerging problems unique to Kerala such as due to urbanization and an ageing population. These include waste management, environmental conservation, water management, life style diseases and old age care.

2) To finance meaningful programmes which contribute to capital formation in the state, the government need to identify “fiscal space” without compromising its fiscal position (Heller 2005). Fiscal space can be created through a combination of cut in expenditure on ongoing or low-priority programmes, revenue increases and debt funds. For instance, a part of

the funds raised through the KIIFB route comes from 1 per cent cess on petrol and 10 per cent of the tax collected from the motor vehicles tax.

3) Though higher capital expenditure and outlay is desirable, costly capital investment projects which have heavy political overtone and benefits only a small section of the population have to be avoided. Instead, focus must be on projects whose social benefits exceed their economic costs (Greene 2011).

4) To control current expenditure, efforts have to be taken to rationalise the size of government workforce thereby reducing the expenditure on salaries and pensions. This is especially important since we found that salaries, pensions and interest expenses form the major share of revenue expenditure in Kerala and is the highest among the comparable states. The government, instead of acting as employer of last resort, has to generate more jobs in the private sector by way of creating an appropriate environment for the private sector to operate. Also, the practice of appointing large number of temporary staff (also called contract employees) that too in a non-transparent manner in various government departments, public sector enterprises (PSEs), and quasi-government institutions have to be discontinued. Appointment of large number of temporary staff not only bloats salary payments but also restricts the size of highly skilled workforce such as economists, budget analysts and lawyers specialised in taxation needed for analytical, regulatory and policy positions (Greene 2011). A recent review by Kerala State Finance Department has found that around 30,000 excess posts have been created in various in various government departments, PSEs, Corporations and

Boards, of which majority are temporary employees.<sup>16</sup> The government may put a freeze on recruitment except for essential services and explore outsourcing or contracting or public private partnership modes of functioning wherever possible. In view of the high share of pensions in Kerala's total outstanding liabilities which is going to worsen with an increasingly ageing population, it may be prudent to raise the retirement age in the state.

5) Adopt performance budgeting, which involves setting goals for each government scheme, assessing how well particular schemes achieve them and terminating ineffective and low priority schemes in favour of better ones. Countries such as Chile and the United Kingdom have achieved significant success in containing the growth of public expenditure using this tool.

6) Adopt zero-based budgeting in which at the time of preparing annual budget each government programme would be viewed as *new* and therefore has to be justified by the concerned department for their continuity. Thus, unlike the normal budget making exercise, zero based budgeting does not involve reviewing of requests made by various departments for additional allocation of budgetary funds for various schemes under them. Outcome budgets can be included in the annual budgetary exercise to link outlays with quantifiable deliverables or outcomes.

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<sup>16</sup> Also, it has been reported that large number of temporary staff are appointed by the heads of departments of various government arms in gross violation of norms, which require reporting of such appointments to the Public Service Commission. This has given rise to allegations of corruption and nepotism in the appointment of temporary staff. For details, see 'Temporary staff postings come under scanner', *The Hindu*, May 30, 2016, cited at <http://www.thehindu.com/todays-paper/tp-national/tp-kerala/temporary-staff-postings-come-under-scanner/article8665143.ece>; and '10,000 contract staff may lose their jobs in Kerala', *The Hindu*, September 16, 2014, cited at <http://www.thehindu.com/news/national/kerala/10000-contract-staff-may-lose-their-jobs-in-kerala/article6415110.ece>

7) Programmes, say multiple social welfare programs, with similar nature could be identified and merged to curb outlays. This would also help in achieving economies of scale in expenditure.

8) The government can improve the control over expenditure through appropriate targeting of beneficiaries of various government social welfare programmes. For instance, Singapore achieved significant reduction in health care expenditure by discouraging economically well-off patients from using public hospitals (Greene 2011). This was done by giving more subsidies for those using lower-class rooms and less or no subsidies for those using higher-class rooms in the public hospitals.

9) Governments quite often incur expenses indirectly mainly through public agencies, called off-budget or quasi-fiscal spending. Examples are tax expenditures<sup>17</sup>, losses of state owned enterprises, lending by public sector banks to specific set of borrowers at below market interest rates and expenditures due to bank recapitalization. Compared to the regular budget expenditures, off-budget spending is less transparent and difficult to control and quantify.

To avoid expenditure overruns, off-budget expenditures have to be controlled or minimized. Recently, the Kerala government has decided to raise funds for infrastructure development mainly from non-resident Keralites through an off-budget route namely Kerala Infrastructure Investment Fund Board (KIIFB). In the state budget for the financial year 2017-18 it was informed that projects worth of Rs.4004 crore was approved under the KIIFB route. Another set of projects amounting Rs. 11000 crore was proposed to be approved before the end of the current financial year. The funds raised under KIIFB may turn out to be a liability if the

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<sup>17</sup>Tax expenditures are revenue losses incurred by the government due to special provisions such as exemptions, tax holidays, and deductions offered in a tax code.

projects which are funded through the initiative fail to guarantee sufficient return on investment. To safeguard the government from KIIFB's liabilities, the selected projects under KIIFB should be focused in areas that would generate direct economic returns e.g. tourism, toll roads or bridges, industry or agro-processing parks.

10) With the goal of controlling overall expenditure, many governments including some in advanced countries often cut or deter the budgetary allocation on operations and maintenance. This would not only adversely affect the quality of government services<sup>18</sup> but also reduces the longevity of buildings and physical infrastructure built by the government, thereby requiring the government to find additional budgetary resources for the replacement of worn out assets. Therefore, while designing or reviewing expenditure policy adequate emphasis must be given on operation and maintenance of government facilities created in the past. This will not only enhance the life of such assets but also reduce the need for incurring additional spending for the replacement of worn out assets at frequent intervals. For instance, it has been reported that half of the low floor buses of Kerala Road Transport Corporation (KSRTC) have been abandoned in the yard as they became inoperative due to the unavailability of spare parts and lack of maintenance.<sup>19</sup>

11) Loan/credit guarantees extended by the government on loans raised by PSEs, local authorities, statutory boards, corporations, and co-operative institutions has to be based on proper assessment of cost-benefits associated with the projects and ranking of net present value of the projects. Also, it is desirable to limit loan guarantees only to creditworthy PSEs.

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<sup>18</sup>Shortage of medicines and medical equipment in public hospitals and of amenities and facilities in public parks are good examples of deteriorating quality public services.

<sup>19</sup> As reported in *Malayala Manorama*, August 19, 2016

12) Privatization/corporatization of public sector enterprises which are loss making and are operating in areas in which government has no comparative advantage can save substantial amount of public money that could be spend on other productive purposes.

13) A comprehensive review of pay and employment policy with respect to government employees has to be undertaken. Among others, the review can consider introduction of incentive pay or bonuses for employees who demonstrate exceptional public service, providing more functional autonomy to civil servants, reducing political staffing in ministries and introducing robust anti-corruption measures (Greene 2012).

14) The subsidy burden of Kerala, though low, has been increasing consistently over the years. This requires rationalisation of subsidies. A good subsidy program is characterized by the following features

(a) The subsidy amount has to be provided *explicitly* to the beneficiaries so that they can purchase the subsidized good or service directly from private firms on the condition that the private firms sell the good or service at a price fixed by the government. This would make subsidies more transparent and controllable. On the other hand *implicit* subsidies, which involve supply of subsidized goods or services through state-owned enterprises (SOEs), can result in numerous challenges and inefficiencies associated with the management and functioning of SOEs.

(b) To a larger extent possible, subsidies have to be paid only to the targeted beneficiaries so as to avoid the situation of benefits reaching the unintended recipients.

(c) A subsidy scheme has to be designed in such a way that the running of the scheme is subject to annual renewal and to allocation of funds through the budget process. Such a scheme is easy to manage and helps to control government expenditures. If possible, a subsidy program can also include a sunset clause though it may be difficult in practice.

(d) The financing pattern of a subsidy scheme has to be transparent in the sense that the outlays for the scheme has to be channelled through the regular budget process rather than through indirect ways such as tax expenditures and subsidized sale of goods and services via SOEs.

(e) The economic distortions generated by subsidy have to be minimum.<sup>20</sup> This is possible to a larger extent if subsidies are provided for broad categories of goods and services, say for example subsidy for cultivation of food crops rather than for only wheat and rice. Such a subsidy system would encourage farmers to choose from a range of food crops thereby enhancing competition in the food market.

### **Recommendations for improving revenues**

1) One of the principles governing a sound government revenue or tax system is that, during normal times, the revenue system should be able to generate adequate funds for the government to meet its expenditure obligations and to keep the budget deficits at an acceptable level (Greene 2012; DFID 2009). In short, revenue systems have to raise revenues in tune with changes in the economy.

Viewed from this angle, there is a serious need to strengthen own tax revenue mobilization in Kerala. In a state which has been witnessing faster economic growth and retains top position in per capita consumer expenditure, the decline in the growth of major own tax revenue sources namely sales tax/VAT, state excise duties and motor vehicle tax is undesirable. Also, in the backdrop of the property and real estate boom the state has been witnessing and the alarming rise in the motor vehicle population in the state, the lacklustre performance of the

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<sup>20</sup> An example of distortion caused by subsidy is the overexploitation of ground water due to subsidised electricity supply to the farm sector.

two own revenue sources namely stamps and registration fees and motor vehicle tax over the years has to be examined thoroughly and corrective actions have to be taken accordingly.

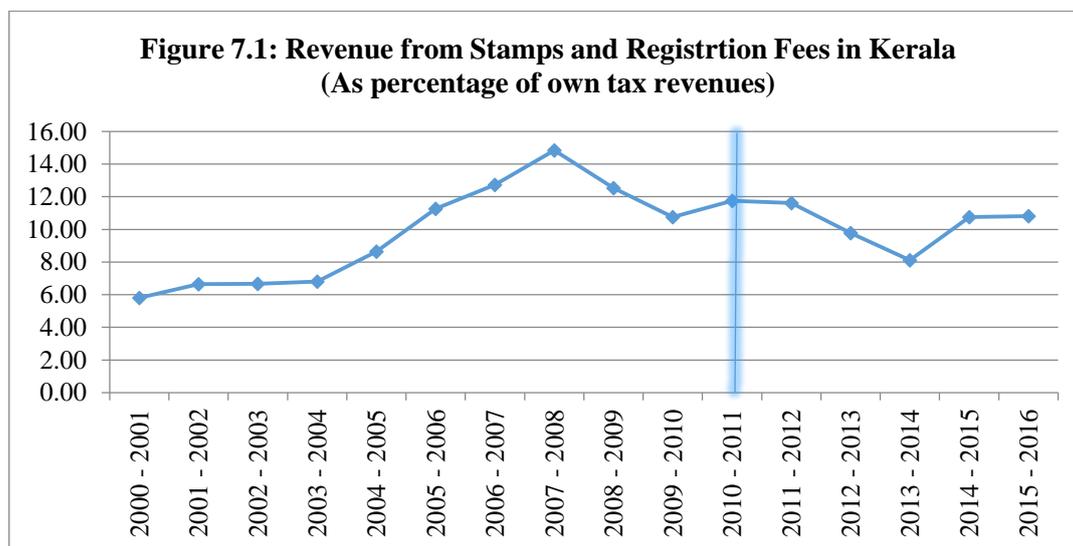
For instance, revenue from these sources can be enhanced by way of rationalisation of tax/duty structure, use of technology, keeping accurate and updated registries of property values and improving property records by way of proper monitoring of property sales. In fact recent experiences with rationalisation of stamps and registration fees and motor vehicles tax in the state support such policy actions (see Box 7.1). Also, the e-stamping facility followed in many states such as Uttarakhand, Tamil Nadu and Karnataka can be introduced to prevent malpractices in land registrations. The e-stamping is a web-based, secure, tamper-proof system involving payment of stamp duty to the government by electronic means. The other advantages of the e-stamping system are faster and transparent method of stamp duty payment, verification by the user and the government, easy availability of stamp papers, prevention of corruption, fake stamp paper circulation and fleecing by vendors.<sup>21</sup>

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<sup>21</sup> Though the Kerala government approved an amendment to the Kerala Stamp Act, 1959 in June 2015 to facilitate introduction of the e-stamping in the state, the policy is yet to be implemented. For details, see 'e-stamping to be introduced in State', *The Hindu*, June 25, 2015 (Available at <http://www.thehindu.com/todays-paper/estamping-to-be-introduced-in-state/article7352364.ece>).

### **Box 7.1: Revenue impact of Rationalisation of Stamp Duties and Motor Vehicle Tax in Kerala**

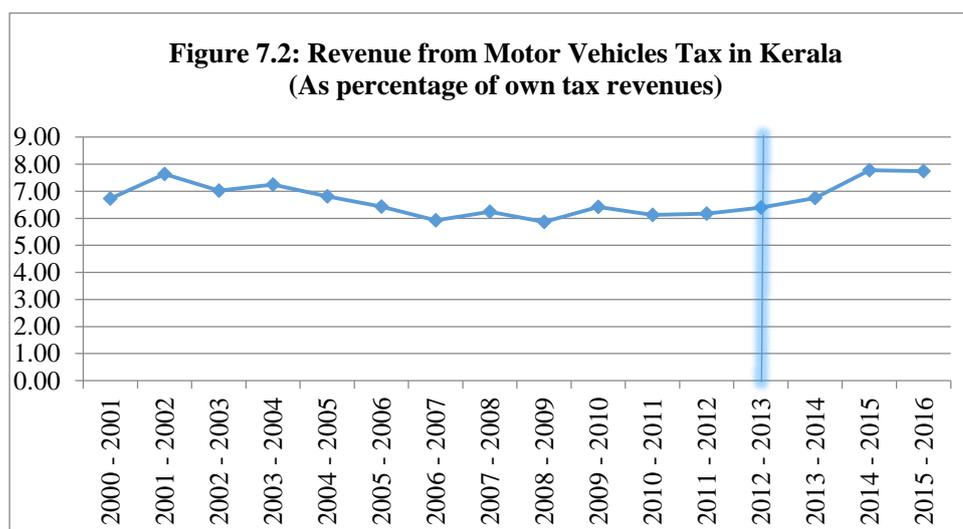
In the state budget announcement in March 2010, the Kerala government viewed the prevailing stamp duty in the state to be on the higher side and hence reduced the effective rate of stamp duty, surcharge and registration fee in Corporation areas from 15.5 to 11 per cent; in Municipality/Township/Cantonment areas from 14.5 to 10 per cent; and in Grama Panchayath from 12 to 9 per cent. The impact of this reform measure on the revenue from stamps and registration fees was encouraging. As a percentage of state GDP, the revenue from this category has increased in the year 2010-11 i.e. the year of implementation of duty rationalisation (see Table 7.4). Also, in terms of growth and as a percentage of own tax revenue, the revenue from this source has improved markedly during 2010-11 (see Figure 7.1 and Table 7.4). This suggests that the earlier rates were towards the right of the optimal point of the Laffer curve and its reduction actually helped to raise revenues. However, the revenue growth stagnated in the subsequent years till a further rationalisation exercise was carried out in 2014, as per which the stamp duty for the three local body categories was merged into a single rate of 6%. This resulted in a sharp increase in the revenues in 2014-15.



**Table 7.4: Revenue from Stamps and Registration Fees in Kerala**

Year	Growth rate (%)	As percentage of GDP
2000 - 2001	7.91	0.47
2001 - 2002	14.55	0.51
2002 - 2003	0.09	0.56
2003 - 2004	2.02	0.57
2004 - 2005	27.26	0.65
2005 - 2006	30.22	0.80
2006 - 2007	13.00	0.99
2007 - 2008	16.57	1.16
2008 - 2009	-15.57	0.99
2009 - 2010	-14.10	0.82
<b>2010 - 2011</b>	<b>9.21</b>	<b>0.97</b>
2011 - 2012	-1.18	0.82
2012 - 2013	-15.87	0.71
2013 - 2014	-17.04	0.56
<b>2014 - 2015</b>	<b>32.67</b>	<b>0.72</b>
<b>2015 - 2016</b>	<b>0.53</b>	<b>0.74</b>

As regards motor vehicles tax, the receipt from this source has witnessed a substantial increase from 2012-13 onwards thanks to rationalization of motor vehicles tax structure (see Figure 7.2 and Table 7.5). Prior to 2012-13, the road tax in respect of motor vehicles for personal use was based on combination of the volume and purchase value of the vehicle. From 2012-13 onwards, this was changed to a road tax based only on the purchase value.



**Table 7.5: Revenue from Motor Vehicles Tax in Kerala**

Year	Growth rate (%)	As percentage of GSDP
2000 - 2001	-8.27	0.54
2001 - 2002	13.49	0.58
2002 - 2003	-7.94	0.59
2003 - 2004	3.05	0.61
2004 - 2005	-5.95	0.51
2005 - 2006	-5.63	0.46
2006 - 2007	-7.79	0.46
2007 - 2008	5.32	0.49
2008 - 2009	-6.07	0.46
2009 - 2010	9.47	0.49
2010 - 2011	-4.49	0.50
2011 - 2012	0.68	0.44
<b>2012 - 2013</b>	<b>3.69</b>	<b>0.47</b>
<b>2013 - 2014</b>	<b>5.55</b>	<b>0.46</b>
<b>2014 - 2015</b>	<b>15.23</b>	<b>0.52</b>
<b>2015 - 2016</b>	<b>-0.54</b>	<b>0.53</b>

2) Only few tax sources contribute to public revenue mobilisation in Kerala. Hence, there is a need to tap all the existing tax sources adequately. Tax sources namely land revenue, urban immovable property tax, entertainment tax and taxes and duties on electricity have to be adequately tapped. Also new tax and non-tax sources with good revenue potential can be identified and taxed. One good example is the “Fat Tax” imposed in the state from the year 2016-17 on junk food items such as burgers, pizza, donuts and sandwiches sold in branded restaurants. The state must introduce a more prudent liquor policy which taxes premium brands at higher rates that will generate revenues not only from domestic high income consumers but also from tourists and business visitors. Mega sporting events can be organised in different parts of the state (e.g. football or volleyball which are popular sports among locals) leading to

generation of economic activity and tourist inflow which in turn will generate tax and non-tax revenues (including collection of license fees from the organisers). Tapping new potential revenue sources will also enable low rates for each tax thereby improving tax compliance (Greene 2011).

3) The secular decline in the contribution of excise duties in Kerala's own tax revenues demands a detailed analysis of excise revenue system of Kerala. This is all the more important considering the facts that Kerala is one of the biggest beer, wine and refined/ foreign liquor drinking states<sup>22</sup> in the country and that the decline in excise revenue has started long time before the introduction of graded prohibition in the state August 2014.

4) Serious efforts have to taken to avoid/reduce tax evasion. Experience across the globe suggests that, apart from strong policy actions such as investigations, audits, imposition of penalties and asset seizures, the fight against tax evasion should also involve putting in place a tax system aimed at reducing the incentives for tax evasion (Greene 2011). This may be achieved with a tax system characterised by a broad base, low rates<sup>23</sup>, limited exemptions, easy compliance and effective use of big data and technology. In this context, it is important to note that the Economic Intelligence Wing set up by Kerala in the year 2013-14 for detecting and taking action on tax evasion seems to have produced positive results in the form of improved own tax revenue mobilisation (see Box 7.2). Also, as a measure to check tax evasion, in the state budget for the year 2017-18 it was announced that smart surveillance cameras would be installed at the state border roads and bye-routes to capture the goods vehicles which have not uploaded their invoices showing payment of integrated GST (IGST) to the GSTN portal. More use of technology is therefore needed to check tax evasion. For instance, the information

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<sup>22</sup> Next to Goa and Andhra Pradesh, Kerala is the biggest beer, wine and refined/foreign liquor drinking state with a consumption figure of 102 ml per capita per week in 2011-12. For details, see 'India's biggest drinkers', *The Hindu*, August 23, 2014 (Available at: <http://www.thehindu.com/opinion/blogs/blog-datadelve/article6344654.ece>)

<sup>23</sup> Lower tax rates will also encourage informal economies to formalise thereby increasing the tax revenues.

technology prowess of the state can be effectively utilised to gather and analyse the big data on commercial (including property) transactions in order to identify potential areas of tax evasion and take necessary policy action.

5) Avoid granting tax amnesty to the tax payers. Notwithstanding the revenue potential of such a tool, in the long run it can reduce the incentive to pay taxes due to the anticipation of amnesty schemes in future. In both 2016-17 and 2017-18 budgets Kerala declared amnesty schemes for value added tax dealers.<sup>24</sup> Offering of tax amnesty within such a short interval is certainly not a healthy trend. The state should declare an end to granting any such amnesty.

**Box 7.2: Impact of formation of Economic Intelligence Wing**

In the Commercial Taxes Department of Kerala it was found that the mechanism present in the Department for collection and analysis of import data and sharing of the same with assessing officers for cross verification was ineffective. As a result, dealers were indulging in suppression of import purchase turnover. The Accountant General of Kerala has recommended formation of dedicated teams to create, maintain and update a Data Ware House using information gathered from both within and outside the Department. In response, the Government of Kerala has set up an Economic Intelligence Wing (EIW) in the Commercial Taxes Department in the year 2013-14 for collecting effective market intelligence to study, identify and detect tax evasion in the state. The efficiency and effectiveness of the EIW can be traced in the upward movement in the own tax revenue collection in the subsequent years (see Table 7.6).

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<sup>24</sup> For details see the *Budget Speech 2017-18* available at [http://www.finance.kerala.gov.in/index.php?option=com\\_content&view=article&id=573:kerala-budget-2017-18&catid=18:state-budget](http://www.finance.kerala.gov.in/index.php?option=com_content&view=article&id=573:kerala-budget-2017-18&catid=18:state-budget)

**Table 7.6: Revenue from Own Tax Revenue in Kerala**

<b>Year</b>	<b>Growth rate (%)</b>	<b>As percentage of GSDP</b>
2000 – 2001	13.03	8.08
2001 – 2002	0.91	7.60
2002 – 2003	23.28	8.40
2003 – 2004	10.77	8.36
2004 – 2005	10.82	7.52
2005 – 2006	9.09	7.15
2006 – 2007	22.12	7.77
2007 – 2008	14.46	7.80
2008 – 2009	16.98	7.89
2009 – 2010	10.22	7.60
2010 – 2011	23.24	8.23
2011 – 2012	18.40	7.06
2012 – 2013	16.95	7.29
2013 – 2014	6.38	6.88
<b>2014 – 2015</b>	<b>10.12</b>	<b>6.69</b>
<b>2015 - 2016</b>	<b>13.20</b>	<b>6.81</b>
<b>2016- 2017</b>	<b>17.96</b>	<b>7.14</b>

6) For major tax sources the two effective tax mobilisation instruments namely withholding of tax at source and estimated tax payments can be introduced. These two instruments have proved to be valuable for tax resource mobilisation in many countries. For instance, incentivising advance payments of VAT on the basis of annual turnover of the dealers can increase tax collection and compliance. Also, the tax liability of assesseees during the year can be estimated in advance and collected periodically from them. This will not only reduce the pressure on meeting the tax collection targets at the year-end but also preserve the real value of tax revenue against inflation.

7) Engage the tax administrators to mobilise revenue from sources or lucrative tax payers that provide substantial revenue. Special administrative units can be established within the tax department focusing on large tax payers or major revenue earners.

8) One useful way to prevent and reduce tax evasion is to offer cash rewards to citizens for sharing information on tax evaders with the tax department (Greene 2011). The best example of the reward system of this kind is the Tax Relief and Health Care Act of 2006 in the United States, which offers cash rewards amounting 15-30 per cent of the recovered tax amount totalling \$2 million or more. However, such a programme should be backed by strong legal provisions not only to protect the tax payers from searches and harassment by the tax officials on the basis of unsubstantiated information provided by the whistle-blowers but also to protect the whistle-blowers from the targets of tax defaulters.

9) Ensure that the government collects a fair share of the income or profits generated in the natural resource based industries such as granite mining operations. There have been reports of widespread evasion of royalty by quarry owners in the state. For instance, recently the Revenue Department has found that many granite quarries in the Idukki district of Kerala were indulging in illegal mining causing heavy loss to the exchequer in terms of royalty payment.<sup>25</sup>

10) Review, strengthen and update current tax administration with the goal of increasing efficiency, simplifying and improving compliance, thereby raising the additional revenues. Effective tax administration depends on following elements (Greene 2012). First, the tax law should be simpler to administer with fewer tax rates, exemptions, allowances and special provisions. The key benefit from a simpler law is broader base, lesser distortions to economic incentives and activity and better tax compliance. Complex tax system discourages

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<sup>25</sup> See 'Now, quarries in Kerala's Munnar blow rules sky-high', *The New Indian Express* (Cited at <http://www.newindianexpress.com/states/kerala/2017/mar/27/now-quarries-in-keralas-munnar-blow-rules-sky-high-1586270.html>).

investments by firms or encourages them to run their business informally or illegally. This would undermine the prospects for economic growth and job creation. Second, the tax department has to be equipped with skilled, committed and honest staff. Third, the tax system should be designed in such a way as to promote voluntary tax compliance by the tax payers. Some of the important ingredients of such a system are: simple and stable tax laws, supply of sufficient and timely information to tax payers, continuous efforts to educate the taxpayers, productive engagement with tax payers and business associations by tax department<sup>26</sup>, establishing systems which automatically detect non-compliance, and provision for impartial and timely appeals. Fourth, the employees of the tax department have to be provided with modern equipment and facilities<sup>27</sup> and sufficient legal support<sup>28</sup> to perform their duties. Fifth, the tax administration must be capable of raising revenues at minimum administrative and compliance cost. Sixth, the discretionary authority of the tax administration has to be used in a fair and transparent manner. For instance, revenue authorities should desist from extracting bribes from the taxpayers or undermining the due process of the law while pursuing the cases of tax evasion.

11) There is a serious need to enhance own non-tax revenues in Kerala particularly the dividends and profits from state PSEs and user charges from economic and social services. Revenue from user charges can be increased only if the state shows the willingness to periodically increase user fees, charges, and penalties commensurate with the pace of inflation. Potential sources of revenue in this sphere are raising tuition fees for public universities,

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<sup>26</sup> If tax payers are subject to appropriate treatment by tax authorities such as freedom from harassment and no special tax privilege to a particular section of the taxpayers, it helps to put in place an effective tax system based on citizens' consent (Greene 2012; DFID 2009)..

<sup>27</sup> It has been reported that in the Excise check-posts in Kerala the only instrument available to the officials to examine the consignments is iron rod. To check whether spirit is hidden inside a truck, iron rod is used to pierce the load, usually in sacks, which may not work for all consignments (See 'No integrated check-post at Aryankavu now: Babu', *The Hindu*, September 19, 2012).

<sup>28</sup> Quality legal support is important for tax officials to present a strong case before the judiciary in cases relating to tax disputes with businesses.

penalties for violation of traffic rules, and admission fees for museums and public recreation facilities. Being a global tourist destination, there is considerable potential of collecting higher user fees (with premium pricing for foreign tourists) at several tourist destinations across the state (e.g. beaches, wildlife parks, heritage buildings, museums). Introducing online booking and digital payments for collecting user fees can reduce leakages and increase revenues. The charging of appropriate amount of user fees and charges may also incentivise the citizens to use public amenities more carefully.

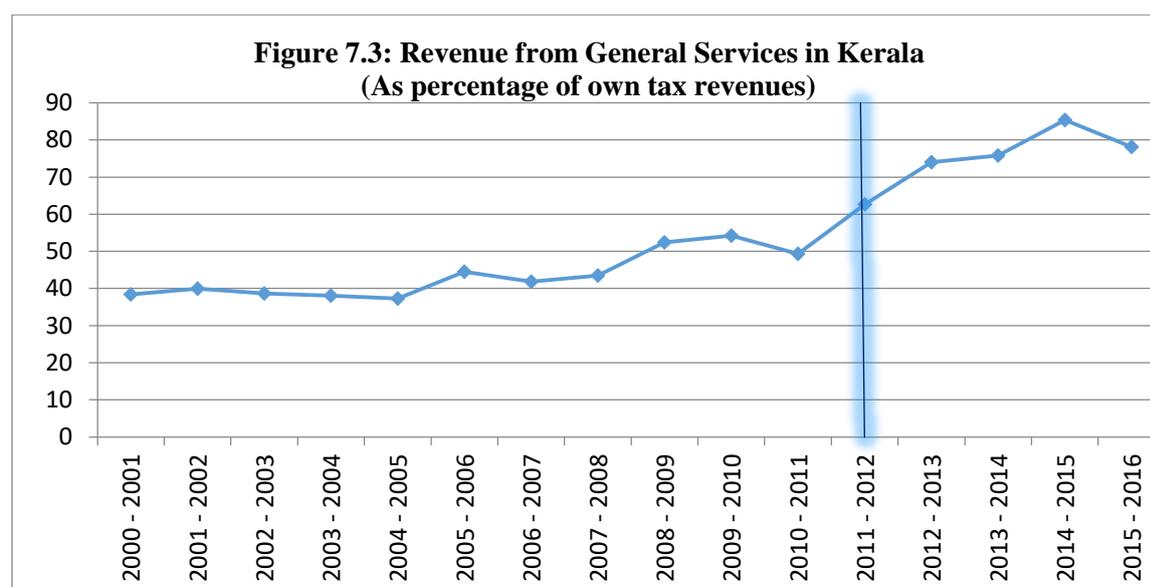
Revenue from PSEs can be enhanced by increasing their profitability, which can be made possible with the following reforms (Greene 2011). First, restructure the PSEs with the goal of making them operate in a commercial manner to the maximum extent possible and limiting their losses. Second, reduce political interference in the functioning of PSEs. Third, impose hard budget constraints on loss-making PSEs by way of reducing government budgetary transfers and putting in place stricter performance norms for assessing bank borrowing requests from PSEs. Finally, privatise those enterprises which are not operating in the domain of public/essential goods. This way the government could not only realise some money but also reduce spending on non-essential PSEs. As per latest reports 58 of the 117 PSEs in Kerala are loss-making companies among which KSEB and KSRTC incur the major share of the total losses.<sup>29</sup> Such companies need to undergo a process of restructuring which can include infusion of professional management to stock listing and employee stock options and in the extreme case, privatisation.

12) Considering that revenue from the sale of state lotteries (general services) constitute a significant portion of Kerala's own non-tax revenue, efforts have to be made to consolidate and expand the gains from this revenue source. For instance, the decision to introduce daily

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<sup>29</sup> <http://newsable.asianetnews.tv/south/ksrtc-biggest-loss-making-psu>

lotteries in 2011-12 paved the way for huge rise in collection of revenue from lotteries as evident from Figure 7.3 and Table 7.7. More such innovative steps have to be undertaken. One possible option could be the introduction of e-lottery system as in the state of Arunachal Pradesh. The Goa model of setting up offshore casinos in select tourist destinations can be explored to mobilise revenues from tourists.



**Table 7.7: Revenue from General Services in Kerala**

Year	Growth rate	As percentage of GSDP
2000 – 2001	20.12	0.35
2001 – 2002	-14.21	0.28
2002 – 2003	20.68	0.30
2003 – 2004	17.21	0.32
2004 – 2005	-0.63	0.26
2005 – 2006	36.55	0.30
2006 – 2007	-5.92	0.25
2007 – 2008	34.22	0.30
2008 – 2009	55.44	0.40
2009 – 2010	22.76	0.43
2010 – 2011	-5.14	0.36
<b>2011 – 2012</b>	<b>70.58</b>	<b>0.45</b>
<b>2012 – 2013</b>	<b>91.19</b>	<b>0.75</b>
<b>2013 – 2014</b>	<b>36.15</b>	<b>0.91</b>
<b>2014 – 2015</b>	<b>47.01</b>	<b>1.18</b>
<b>2015 - 2016</b>	<b>11.98</b>	<b>1.19</b>

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## Appendix 1: Literature Review

Paper Title	Author and Year	Key Findings
The State of State Government Finances in India	Nirupam Bajpai and Jeffrey D. Sachs (1999)	<ul style="list-style-type: none"> <li>• Fiscal deficits have remained high in the states and large component of these is made up of revenue deficit.</li> <li>• The three different methods of intergovernmental fiscal transfers have resulted in an inefficient transfer mechanism, which has increased bureaucracy at the state level, accommodated numerous interest groups, and delinked plan requirements of states from actual transfers.</li> </ul>
Fiscal Correction for Economic Growth  Data Analysis and Suggestions	Rakesh Mohan (2000)	<ul style="list-style-type: none"> <li>• It is revealed that the main impediment constraining India's growth in the future is the continuing fall in public investment in infrastructure which has been caused by deteriorating fiscal environment at both the central and state government levels.</li> <li>• It is also found that the key solution to India's fiscal predicament are bold programmes for imposing user charges on all public services amenable to such charges , and the implementation of a crash programme of privatisation.</li> </ul>
Fiscal Discipline at the State Level: Perverse Incentives and Paths to Reform	Mukesh Anand , Amaresh Bagchi , Tapas K. Sen (2001)	<ul style="list-style-type: none"> <li>• All revenue transfers from the centre to the States would need to be integrated by bringing them under the Finance Commission's purview. The FCs devolution formulae should be strengthened with normative assessment of needs and capacity of the states.</li> <li>• A new strategy of planning oriented to a liberalized economy focussing on Plans for investment would need to be evolved.</li> <li>• The States should be required to depend on the market for their borrowing needs, with subsidy from the Centre for the additional risk premium on interest on loans given by financial institutions to underdeveloped/poorer States.</li> </ul>
"State Finances in India: Issues & Challenges	M. Govinda Rao (2002)	<ul style="list-style-type: none"> <li>• There has been a steady deterioration in states' own tax revenues, significant drain on states' resources due to losses from public enterprises and proliferation of implicit and explicit subsidies and transfers.</li> <li>• It is extremely important that effective fiscal reforms programme should be put in place in order to avoid serious problems arising from excessive borrowing.</li> <li>• Increased provision to social sectors and physical infrastructure can be made only when the slide in the revenue-GDP ratio is reversed.</li> </ul>

ADB INDIA Economic Bulletin	(2003)	<ul style="list-style-type: none"> <li>• The combination of rising revenue and fiscal deficits in conjunction with rising committed expenditures like interest payments and pensions on the one hand and, fall in capital expenditure relative to their respective GSDPs on the other, indicate the basic weaknesses in the profile of the state finances.</li> <li>• The main reasons for the deterioration in the state finances are considered to be the revision of salaries and pensions of state government employees following the recommendations of the fifth central pay commission and erosion in the buoyancy of central indirect taxes which led to a fall in tax devolution relative to GDP.</li> </ul>
The States and Social Expenditures	Tapas K. Sen (2003)	<ul style="list-style-type: none"> <li>• The centre has seemingly done better than the states in the post-reform period in the case of social sector expenditure. This is however, slightly misleading since the two are not unrelated. The centre has been able to perform better by withholding money from the states. Over the years the number of centrally sponsored schemes has continued to increase, at the expense of the allocation from the overall plan outlay to the states</li> <li>• With regard to health, not much has happened. Neither the centre nor the states increased their health expenditures considerably.</li> <li>• With regard to education the share of education expenditures from all the departments declined from around 4.1 percent in 1990-91 to 3.8 per cent in 1998-99. This is mainly due to the decline in the state level.</li> <li>• Among all the components of public investment in Infrastructure in India, the components handled by the state governments are of particular concern, because they involve areas where private investment is less likely to substitute for any decline in public investment.</li> </ul>
The Challenge of Fiscal Discipline in the Indian States	W.J. McCarten J. Rodden, G. Eskeland, & J. Litvack (Eds.) (2003)	<ul style="list-style-type: none"> <li>• While many states have seen rising debt to state GDP ratios, the overall ratio of total state debt to national GDP has been relatively stable at around 20% for the last decade.</li> <li>• The fiscal deterioration at the state level has been reflected primarily in worsening composition of expenditure: with salaries, subsidies and interest payments crowding out non-wage Operations &amp; Maintenance and capital spending.</li> <li>• The Indian case suggests that hierarchical institutions alone are not optimal mechanism for policing sub-national finances.</li> </ul>
Expenditure Implications of India's State-level Fiscal Crisis	Stephen Howes, RinkuMurugai and Marina Wes	<ul style="list-style-type: none"> <li>• State governments now face the very difficult task of increasing expenditure in priority areas while reducing deficits to sustainable levels.</li> <li>• Expenditure in poor states though lower on a per capita basis, is often higher as a percentage of state domestic product.</li> </ul>

	(2005)	
The State Finances in India : A Case for Systemic Reform	Nirvikar Singh ( 2006)	<ul style="list-style-type: none"> <li>• State finances in India have deteriorated substantially in the past decade and require urgent attention.</li> <li>• In some cases the problem is worse than that indicated by budget deficits, since states also have large off-budget liabilities.</li> <li>• They have suggested that the problem lies partially or even substantially in government institutions that have not kept pace with changes in the redesigning India's market economy. Thus tackling the problems of state finances requires broad systematic reforms.</li> </ul>
Kerala State Development Report ( III <sup>rd</sup> Section of 4 <sup>th</sup> Chapter)	Report is published by Planning Commission (2008)	<ul style="list-style-type: none"> <li>• It is pointed that the fiscal situation of Kerala demands immediate reform and restructuring. And it has to examine its tax and non-tax sources to identify the deficiencies and to explore the avenues for reform and restructuring.</li> <li>• The direction of the financial services sector of the state is towards the overall socio-economic development.</li> <li>• The forecasts and analysis show that the ratio of revenue deficit to revenue expenditure shows a decreasing trend, same as in revenue deficit- fiscal deficit ratio.</li> <li>• The study suggests that unless urgent corrective steps are taken it will be difficult to contain revenue deficits.</li> </ul>
Indian States' Fiscal Correction : An Unfinished Agenda	V J Ravishankar, Farah Zahir, NehaKaul (2008)	<ul style="list-style-type: none"> <li>• Substantial increase in a state's own revenue is possible through reforms in tax policy and administration, which would expand the tax base (by reducing evasion) as well as enhance tax buoyancy; including effective implementation of the VAT.</li> <li>• It is important to note that instilling fiscal discipline among states is still an unfinished agenda: Recent improvements in the incentive framework for fiscally responsible behaviour by the state governments have brought about desired change in the fiscal stance of several, but clearly not all the states.</li> <li>• The study revealed that the most effective way to enforce fiscal discipline among all states is to expose them to credit rating and risk-based lending terms, by phasing out central guarantee or any kind of central support, so as to let states access the financial market on their own strength.</li> </ul>
Mobilising Non-Tax Revenue- An	Mahesh C Purohit, Vishnu Kanta Purohit	<ul style="list-style-type: none"> <li>• It is found that non-tax sources are not a fiscally significant source of revenue in the states' budget and their growth is not keeping pace with other components of revenue receipts.</li> <li>• The study also revealed that any increase in user charges for medical services can result in lower recourse to these services and higher rate of self-medication among poor.</li> </ul>

Empirical Analysis of Trends in States.	( 2009)	<ul style="list-style-type: none"> <li>• It is suggested that water rate structure should be rationalised for better recovery of cost.</li> <li>• In irrigation projects, the increase in water rates has been rather modest and states have not accepted the Irrigation Commission recommendations of reviewing and adjusting rates every five years.</li> <li>• To improve the maintenance of roads it is recommended that government start a system of electronic toll collection.</li> </ul>
Macro Policy Reform and Sub-National Finance: Why is the Fiscal Space of the States Shrinking?	Pinaki Chakraborty, Anit Mukherjee, H K Amarnath  (2009)	<ul style="list-style-type: none"> <li>• In the post economic liberalisation era in India, fiscal reforms at centre and financial sector reforms have adversely affected sub-national finances.</li> <li>• Though there are sharp interstate differences, the analysis revealed that fiscal and macro-policy shocks have reduced the fiscal space across states with varying degrees.</li> </ul>
Trends in Kerala State Finances – 1991-92 to 2012-13 : A Study in the Backdrop of Economic Reforms in India	K K George  K K Krishnakumar  (2012)	<ul style="list-style-type: none"> <li>• The study reveals that the efforts of Kerala for own revenue mobilisation came down during the present decade through the own revenue-GSDP ratio</li> <li>• The ratio of Central transfers to GSDP over the years was coming down continuously.</li> </ul>
Development Expenditures of the States in the Post-Liberalisation Period	Zico Dasgupta  (2012)	<ul style="list-style-type: none"> <li>• It is found that if development expenditure needs to be increased at least to the level of the 1980s, ceteris paribus, this requires the states to get greater access to the exogenous pool of net resources. This requires fiscal deficit and revenue transfers to increase vis-à-vis interest payments and committed expenditures</li> <li>• It is also pointed out that the development expenditure of the states declined in the post-liberalisation period due to the centre's policies highlights the need for greater autonomy to the fiscal policymaking of the states.</li> </ul>
Sub-national Level Fiscal Health: Stability & Sustainability	Nimai Das  (2013)	<ul style="list-style-type: none"> <li>• The study finds that a sharp rise in the revenue account gap caused fiscal deficit to grow steadily and hence a high-flying debt stock in all states during the late 1990s and early 2000s.</li> <li>• The study suggests that a sound adjustment in fiscal position on revenue account is essential for all states and West Bengal needs a special attention to achieve equilibrium in the long run.</li> </ul>

Implications for Kerala , Punjab, & West-Bengal		
Debt Sustainability at the State Level in India	Balbir Kaur, Atri Mukharjee, and Anand Prakash Ekka  (2014)	<ul style="list-style-type: none"> <li>• The indicator based analysis revealed that while most of the debt sustainability indicators showed significant improvement during 2004-05 to 2012-13</li> <li>• There is a co-integrating relationship between government expenditure and revenues in India</li> <li>• Disaggregated level analysis revealed that despite an overall improvement in debt position of the Indian States, some of the states continue to show signs of fiscal stress and increasing debt burden.</li> <li>• Debt sustainability analysis shows that debt position of states at aggregate level is sustainable.</li> </ul>
Fiscal Consolidation by Central and State Governments; The Medium Term Outlook	B.M. Misra and J.K. Khundrakpam	<ul style="list-style-type: none"> <li>• In terms of the medium-term outlook for 2010-15, the gross and net tax revenue of the Centre would hover around 15 per cent and 11 per cent of GDP, respectively. Both revenue receipts and revenue expenditure would be around 13 per cent of GDP.</li> <li>• The Centre's revenue account would balance and the fiscal deficit would be 2.5 per cent of GDP , according to the study forecasts.</li> </ul>
Report of Fourteenth Finance Commission	Finance Commission of India	<ul style="list-style-type: none"> <li>• In 2004-05, only ten States (Bihar, Chhattisgarh, Jammu &amp; Kashmir, Karnataka, Madhya Pradesh, Manipur, Mizoram, Nagaland, Sikkim and Tripura) showed surpluses in their revenue account; all the others had deficits.</li> <li>• In 2004-05, only seven States (Bihar, Chhattisgarh, Haryana, Karnataka, Odisha, Tamil Nadu and Tripura) had gross fiscal deficits of 3 percent of GSDP or less. However, by 2008-09, the number of such States had increased to fourteen.</li> <li>• The aggregate outstanding debt and liabilities, as a percentage of GDP, showed a declining trend decreasing from 31.1 per cent in 2004-05 to about 21.6 per cent in 2012-13.</li> <li>• In most States, the own tax revenue to GSDP ratios indicated a rising trend. The own non-tax revenue to GSDP ratios of most States, on the other hand, showed a fluctuating trend between 2004-05 and 2012-13</li> <li>• It is evident that higher revenue mobilisation contributed significantly to fiscal consolidation during the period 2004-05 to 2012-13.</li> </ul>

		<ul style="list-style-type: none"> <li>Improvement in the fiscal position of all States taken together, during the period 2004-05 to 2012-13, was reflected in a reduction of the aggregate gross fiscal deficit and revenue deficit, relative to GDP, by 1.4 percentage points each, as well as a reduction in the primary deficit, relative to GDP, by 0.2 percentage points. There is a need to ensure that the momentum gained in improvement in the fiscal position of all States is maintained in the award period also.</li> </ul>
Report of the Kerala Public Expenditure Review Committee (3 <sup>rd</sup> Committee, 4 <sup>th</sup> Report 2013-14)	Govt. Of Kerala (2015)	<ul style="list-style-type: none"> <li>It is revealed that throughout the period, the total expenditure was more than the total receipt, which resulted into growing revenue and fiscal deficit. It is also found that the capital expenditure witnessed a negative growth rate in the short term and implications of this on growth need to be assessed. Also the empirical finding does not show any systematic relationship between deficit financing and economic growth</li> <li>It is found that better monitoring of target groups can enhance the quality of revenue expenditure such as subsidy payments. The surplus fund thus generated should be utilised for capital expenditure for accelerating growth. The committee therefore recommends that the targeting should be introduced in both subsidies, explicit and implicit.</li> <li>The committee recommends that a long-term liquor policy may be evolved at the earliest after taking into account the fact that because of the present policy what is lost to the state in the form of liquor revenue will be gained by neighbouring states, with the gain of only minimum anti-liquor effect among the citizens in the state.</li> <li>The investigation shows that there is no observable /outcome measures in the project records. Of nineteen sectors examined, the expenditure report did not show any outcome measures/observables in a readily available manner. So it recommends that all the projects using plan funds should contain at least one outcome/project objective/deliverable so that the performance of the project assessed and evaluated.</li> </ul>
State Finances -A Study of Budgets 2015-16	Reserve Bank of India (2016)	<ul style="list-style-type: none"> <li>It observes that expenditure quality at the sub-national level has improved under the impetus provided by implementation of fiscal responsibility and budget management (FRBM) rules, but there remains considerable scope for progress</li> <li>The fiscal health of states deteriorated in 2013-14 with their consolidated revenue account turning into a deficit after a gap of three years.</li> <li>States' fiscal situation further weakened in 2014-15 (RE) as GFD and PD increased as proportions to GDP.</li> </ul>

Economic and Political Weekly Study Report		<ul style="list-style-type: none"><li>• The common causes of fiscal imbalances amongst 15 major states are:<ul style="list-style-type: none"><li>(i) A sudden jump in non-development expenditure including the incidence of interest on debt;</li><li>(ii) Sharp reductions in the growth of own non-tax revenues; and</li><li>(iii) Similar deceleration in the rate of growth of resource transfers from the central government.</li></ul></li><li>• Amongst the southern states, Andhra Pradesh, Karnataka and Kerala enjoy better plan expenditure to GSDP ratios of 5 to 6 per cent too, but Tamil Nadu has a lower ratio of a little above 3 per cent.</li></ul>
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## Appendix 2: Major fiscal reforms in states of India since 2010-11

(Source: RBI's State Finances: A Study of Budgets, Various issues)

Table A.1 Major fiscal reforms in states of India during 2010-11

STATE	REVENUE	EXPENDITURE
Andhra Pradesh		
Bihar	<ol style="list-style-type: none"> <li>1. Revised the entry tax rate to make it consistent with the VAT</li> <li>2. e-stamping</li> <li>3. Introduced new schemes for taxes on trades and e-Payments, e&gt;Returns are proposed to be made compulsory</li> </ol>	<ol style="list-style-type: none"> <li>1. Established the Reform Support Unit and Tax Research Unit and Training Centre</li> </ol>
Chhattisgarh		
Goa	<ol style="list-style-type: none"> <li>1. Rationalized excise duty</li> <li>2. Rationalized licence fee for retail sale of liquor</li> </ol>	
Gujarat	<ol style="list-style-type: none"> <li>1. recruitment of talatis as a separate cadre in the revenue department to carry out revenue work such as collecting land revenue</li> </ol>	
Haryana	<ol style="list-style-type: none"> <li>1. Surcharge on VAT</li> </ol>	<ol style="list-style-type: none"> <li>1. Proposed setting up an Infrastructure Development</li> </ol>

		Board for financing, implementation, maintenance and operation of PPP projects
Jharkhand		
Karnataka	<ol style="list-style-type: none"> <li>1. VAT on specific commodities like tobacco and allied products</li> <li>2. Rationalized stamp duty</li> <li>3. sale of land and imposition of toll on vehicles of more than 16 tonnes weight</li> </ol>	
Kerala	<ol style="list-style-type: none"> <li>1. Rationalized stamp duty</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction contributory pension schemes for state financial enterprises</li> </ol>
Madhya Pradesh		
Maharashtra	<ol style="list-style-type: none"> <li>1. Revised the motor vehicle tax</li> </ol>	
Odisha	<ol style="list-style-type: none"> <li>1. Revised Entertainment Tax Act</li> </ol>	
Punjab	<ol style="list-style-type: none"> <li>1. Rationalized stamp duty</li> </ol>	
Rajasthan		
Tamil Nadu		
Telangana		
Uttar Pradesh		
West Bengal		<ol style="list-style-type: none"> <li>1. WB FRBM Act 2010</li> </ol>

Arunachal Pradesh	1. VAT on specific commodities like tobacco and allied products	
Assam	1. Rationalized excise duty 2. Revised Passenger Goods Taxation Act 3. Revised the motor vehicle tax	
Himachal Pradesh		
J & K	1. Concession in stamp duty rate 2. Disinvestment of state PSUs	1. Proposed setting up an empowered committee to monitor the progress of expenditure to ensure 100 per cent utilisation of grants awarded by the Thirteenth FC
Manipur	1. Revised the motor vehicle tax 2. Rationalized stamp duty 3. rationalisation of power tariffs and forest royalties	
Meghalaya	1. Revised Passenger Goods Taxation Act 2. Rationalized licence fee for retail sale of liquor	1. Limited guarantees and established the Guarantee Redemption Fund to avoid the risk of default
Mizoram	1. Revised the motor vehicle tax	1. Augmented the Guarantee Redemption Fund
Nagaland		
Sikkim		1. Sikkim FRBM Act 2010

Tripura		
Uttarakhand	1. Rationalized stamp duty	
NCT Delhi	<p>1. VAT on natural gas for use in the transport sector, Rassi, Ban &amp; Newar, bio inputs like fertilisers, micro-nutrients and plant growth promoters, kerosene stoves, lanterns and petromax and their spares, embroidery and zari items, motion picture distribution, and plastic/glass scrap which were earlier exempted</p> <p>2. increase in VAT rate on certain items, such as diesel, desi ghee, plastic household items, plastic and tin containers including barrels, fertilisers, pesticides, weedicides, insecticides, herbicides, rodenticides and plant growth regulators, wood, timber, plywood and laminated boards, fittings for doors and windows, and furniture</p>	

**Table A.2: Major fiscal reforms in states of India during 2011-12**

<b>NON – SPECIAL CATEGORY STATE</b>	<b>REVENUE FRONT INITIATIVES</b>	<b>EXPENDITURE FRONT INITIATIVES</b>

Andhra Pradesh		<ol style="list-style-type: none"> <li>1. Operation of post-matric scholarships scheme through online banking facility</li> <li>2. The PPP mode for Promoting tourism which would distribute the expenditure burden</li> </ol>
Bihar	<ol style="list-style-type: none"> <li>1. improving tax compliance through e-governance</li> </ol>	
Chhattisgarh		
Goa	<ol style="list-style-type: none"> <li>1. Increasing the VAT rate on certain commodities such as tobacco and allied products</li> <li>2. Increasing the VAT rate on liquor products</li> <li>3. Upward revision in stamp duty rates</li> <li>4. Rationalisation of the license fee for retail sale of liquor</li> </ol>	
Gujarat	<ol style="list-style-type: none"> <li>1. Increasing the VAT rate on certain commodities such as tobacco and allied products</li> <li>2. Increasing the VAT rate on mobiles</li> </ol>	
Haryana		<ol style="list-style-type: none"> <li>1. implementation of e-governance projects for public distribution system, issue of driving licenses, registration of vehicles, and Integrated</li> </ol>

		<p>Financial Management System</p> <p>2. The PPP mode for four-laning of roads which would distribute the expenditure burden</p>
Jharkhand	<ol style="list-style-type: none"> <li>1. Rationalisation of the stamp duty structure through the introduction of e-stamping</li> <li>2. Improving tax compliance through e-governance</li> </ol>	
Karnataka	<ol style="list-style-type: none"> <li>1. Luxury tax on the space or the premises rented for marriage and convention halls</li> <li>2. Stamp duty would include agreements relating to advertisements for business development, granting of exclusive rights for telecasting/broadcasting programmes and assignment of intellectual property rights in Karnataka</li> </ol>	
Kerala	<ol style="list-style-type: none"> <li>1. Rationalized Motor Vehicle Tax</li> <li>2. Increasing penalty fees</li> <li>3. Introduction of daily lotteries</li> </ol>	
Madhya Pradesh	<p>Madhya Pradesh proposes to computerise VAT administration</p>	

	Rationalized Motor Vehicle Tax	
Maharashtra	Increasing VAT on carbonated soft drinks Upward revision in stamp duty rates	
Odisha	Increasing the VAT rate on consumer durables Revision in the entry tax rate to make it consistent with the VAT rate	Establishing modern check gates
Punjab		
Rajasthan	Increasing the VAT rate on Aviation Turbine fuel introducing new taxes such as environment and health cess	
Tamil Nadu	Upward revision in stamp duty rates improving tax compliance through e-governance	
Telangana		
Uttar Pradesh	1. Royalty fee on non-agricultural use of water 2. License fee for liquor Products	
West Bengal	1. Proposed a compensatory entry tax fund by levying a life-time tax on registration of vehicles and on entry of goods into local areas of the state 2. User charges/cost recovery from social and economic services	

<b>SPECIAL CATEGORY STATES</b>		
Arunachal Pradesh	<ol style="list-style-type: none"> <li>1. Improving tax compliance through e-governance</li> <li>2. Increase in VAT rate from 4 per cent to 5 per cent</li> <li>3. Introduction of daily lotteries</li> <li>4. Introduction of e-lotteries</li> </ol>	
Assam	<ol style="list-style-type: none"> <li>1. Increasing the VAT rate on certain commodities such as tobacco and allied products</li> <li>2. Increasing the VAT rate on liquor products</li> <li>3. Increasing the VAT rate on crude oil</li> <li>4. Revision in the entry tax rate to make it consistent with the VAT rate</li> <li>5. Rationalized Motor Vehicle Tax</li> <li>6. Increase in VAT rate from 4 per cent to 5 per cent</li> <li>7. Rationalisation of the license fee for retail sale of liquor</li> </ol>	
Himachal Pradesh	Rationalisation of the stamp duty structure through the introduction of e-stamping	
J & K	<ol style="list-style-type: none"> <li>1. Rationalising taxes such as revision of the Passenger Goods Taxation Act</li> </ol>	

	<ol style="list-style-type: none"> <li>2. Widening the tax net to include services like construction of commercial complexes and colonies, TV/radio programme production, architects/ interior decorators, chartered accountants and advertisement hoardings</li> </ol>	
Manipur	<ol style="list-style-type: none"> <li>1. Rationalized Motor Vehicle Tax</li> <li>2. increase in VAT rate from 4 per cent to 5 per cent</li> <li>3. rationalisation of the license fee for retail sale of liquor</li> </ol>	
Meghalaya	<ol style="list-style-type: none"> <li>1. Amendments in the VAT Act and e-services for luxury and profession tax</li> <li>2. Increase in VAT rate from 4 per cent to 5 per cent</li> </ol>	
Mizoram	<ol style="list-style-type: none"> <li>1. Rationalized Motor Vehicle Tax</li> <li>2. levy of stamp duty on monthly payment of salaries to all regular Government officials including the Council of Ministers and Parliamentary Secretaries and on all bills in respect of payment made by various Departments and offices to private parties</li> <li>3. increase in VAT rate from 4 per cent to 5 per cent</li> </ol>	

Nagaland	Increase in VAT rate from 4 per cent to 5 per cent	
Sikkim	Increase in VAT rate from 4 per cent to 5 per cent	
Tripura		
Uttarakhand	<ol style="list-style-type: none"> <li>1. Amendments/ revisions in the Entertainment Tax Act</li> <li>2. Rationalisation of the stamp duty structure through the introduction of e-stamping</li> </ol>	

#### **Union Territories with Legislative Assemblies**

<b>Delhi</b>	<ol style="list-style-type: none"> <li>1. Increasing the VAT rate on certain commodities such as tobacco and allied products</li> <li>2. Increasing the VAT rate on sweetmeats and savouries</li> <li>3. improving tax compliance through e-governance</li> </ol>	
<b>Puducherry</b>	<ol style="list-style-type: none"> <li>1. Rationalisation of the stamp duty structure through the introduction of e-stamping</li> <li>2. improving tax compliance through e-governance</li> </ol>	

**Table A.3: Major fiscal reforms in states of India during 2012-13**

NON – SPECIAL CATEGORY STATE	REVENUE FRONT INITIATIVES	EXPENDITURE FRONT INITIATIVES
Andhra Pradesh		<i>Mee Seva</i> project, which provides a simpler interface between the government and the citizen enabling improved delivery mechanism
Bihar	<ol style="list-style-type: none"> <li>2. Raised their value added tax (VAT) on certain commodities such as tobacco and allied products</li> <li>3. Introduced taxes on the sale price of the residential and commercial flats</li> </ol>	
Chhattisgarh		
Goa	<ol style="list-style-type: none"> <li>1. luxury tax on the space or the premises rented for commercial activities</li> <li>2. Rationalized Motor Vehicle Tax</li> <li>3. Introduction of an entry toll on all vehicles registered outside the state</li> <li>4. Licence fee on both on-shore and off-shore casinos</li> </ol>	e-tendering an e-procurement systems
Gujarat	<ol style="list-style-type: none"> <li>1. Rationalized Stamp duty structure</li> <li>2. User charges/cost recovery from social and economic services</li> </ol>	Abolition of vacant posts
Haryana		

Jharkhand	<ol style="list-style-type: none"> <li>1. Luxury tax on the space or the premises rented for marriage halls</li> <li>2. Imposed an entry tax on 63 commodities to protect industries in the state</li> </ol>	
Karnataka	<ol style="list-style-type: none"> <li>3. Luxury tax on the space or the premises rented for marriage and convention halls</li> <li>4. Stamp duty would include agreements relating to advertisements for business development, granting of exclusive rights for telecasting/broadcasting programmes and assignment of intellectual property rights in Karnataka</li> </ol>	
Kerala	<ol style="list-style-type: none"> <li>1. Rationalized Motor Vehicle Tax</li> <li>2. Rationalized Stamp duty structure</li> <li>3. The government of Kerala proposes to set up an Economic Intelligence Wing for detecting and taking action on technology-aided tax evasion</li> <li>4. Registration fee</li> </ol>	
Madhya Pradesh	Madhya Pradesh proposes to computerise VAT administration	
Maharashtra	<ol style="list-style-type: none"> <li>1. LPG for domestic Use has been brought into the tax net</li> <li>2. Rationalized Motor Vehicle Tax</li> <li>3. proposes to levy a late fee on delayed filing of tax returns</li> </ol>	

Odisha	<ol style="list-style-type: none"> <li>1. Entertainment tax has been extended to cover direct-to-home (DTH) broadcasting service providers</li> <li>2. Proposes to introduce progressivity in profession tax</li> <li>3. License fee for liquor Products</li> <li>4. Registration and License fee on bars in restaurants</li> </ol>	A ban on recruitment in all sectors, excluding essential sectors <sup>3</sup> and recruitment, if required, to be done only on contractual basis
Punjab		Rationalising Public expenditure through policy initiatives, such as austerity measures
Rajasthan		
Tamil Nadu	<ol style="list-style-type: none"> <li>1. Vegetable oil has been brought into the tax net</li> <li>2. Rationalized Motor Vehicle Tax</li> </ol>	
Telangana		
Uttar Pradesh	<ol style="list-style-type: none"> <li>3. Royalty fee on non-agricultural use of water</li> <li>4. License fee for liquor Products</li> </ol>	
West Bengal	<ol style="list-style-type: none"> <li>3. Proposed a compensatory entry tax fund by levying a life-time tax on registration of vehicles and on entry of goods into local areas of the state</li> <li>4. User charges/cost recovery from social and economic services</li> </ol>	
<b>SPECIAL CATEGORY STATES</b>		

Arunachal Pradesh	Introduced property taxes on the sale of residential and commercial flats	
Assam	Rationalized luxury tax License fee for liquor Products	
Himachal Pradesh		
J & K	<ol style="list-style-type: none"> <li>1. Upward revision of the toll rate</li> <li>2. User charges/cost recovery from social and economic services</li> </ol>	<ol style="list-style-type: none"> <li>1. Rationalising Public expenditure through policy initiatives, such as austerity measures</li> <li>2. Recruitment through the stipendiary mode and outsourcing of different government activities</li> </ol>
Manipur		Rationalising Public expenditure through policy initiatives, such as austerity measures
Meghalaya	User charges/cost recovery from social and economic services	Abolition of posts identified as redundant
Mizoram	User charges/cost recovery from social and economic services	
Nagaland	User charges/cost recovery from social and economic services	

Sikkim		Rationalising  Public expenditure through policy initiatives,  such as austerity measures
Tripura		
Uttarakhand		

**Table A.4: Major fiscal reforms in states of India during 2013-14**

<b>NON SPECIAL CATEGORY STATES</b>	<b>REVENUE FRONT INITIATIVES</b>	<b>EXPENDITURE FRONT INITIATIVES</b>
Andhra Pradesh		1. Mee Seva project, an e-governance initiative
Bihar	1. Raised tax rates: VAT on tobacco and Vehicle tax  2. Introduced tax on the sales price of residential and commercial flats to tap into real estate	
Chhattisgarh		
Goa	1. Raised tax rate: VAT on tobacco, liquor, carbonated soft drinks, fast food, junk food, vehicle  2. Introduced luxury tax on	1. e-tendering and e-procurement systems

	<p>space or premises rented for commercial activities</p> <p>3. Rationalized motor vehicle tax</p> <p>4. Introduced an entry toll on all vehicles registered outside the state</p> <p>5. Non tax: Licence fee on onshore and off-shore casino</p>	
Gujarat	<p>1. Rationalized stamp duty structure</p> <p>2. Non-tax: User charges/cost recovery from social and economic services</p>	<p>1. Digitization of ration cards</p> <p>2. Abolition of vacant posts</p>
Haryana		1. PPP model for road infra
Jharkhand	<p>1. Raised tax rate: VAT on tobacco</p> <p>2. Introduced luxury tax on marriage halls to tap into real estate</p> <p>3. Widened tax coverage of existing taxes by imposing an entry tax on 63 commodities to protect industries in the state</p>	1. PPP model in solid waste management in municipalities
Karnataka	<p>1. Raised tax rate: VAT on tobacco and plastic woven fabric. Excise duty on liquor and beer. Lump sum tax payable by private bookmakers.</p> <p>2. Introduced luxury tax on marriage, seminar and convention halls to tap into real estate</p> <p>3. Widened coverage of existing taxes by including agreements relating to</p>	1. PPP model for transport infra

	<p>advertisements for business development, granting of exclusive rights for telecasting/broadcasting programmes and assignment of intellectual property rights into stamp duty</p>	
Kerala	<p>1. Raised tax rates: VAT on tobacco, liquor and plastic woven fabric. Land and road tax</p> <p>2. Rationalized motor vehicle tax and stamp duty structure</p> <p>3. Proposed to set up an Economic Intelligence Wing for detecting and taking action on technology-aided tax evasion to improve tax compliance and reduce the costs of tax administration through the use of information technology</p> <p>3. Non-tax: Registration fee on casino licence</p>	1. Digitization of ration cards
Madhya Pradesh	<p>1. Raised tax rate: VAT on tobacco. Luxury tax, Entertainment tax and Advertisement tax</p> <p>2. Proposed to computerize VAT administration</p>	
Maharashtra	<p>1. Raised tax rate: VAT on tobacco</p> <p>2. Brought untaxed 'LPG for domestic use' into tax net</p> <p>3. Rationalized motor vehicle tax</p>	1. PPP model for road infra

	4. Proposed to levy a late fee on delayed filing of tax returns	
Odisha	<ol style="list-style-type: none"> <li>1. Raised tax rates: Excise duty on liquor and beer</li> <li>2. Widened tax coverage of existing taxes by extending entertainment tax to cover direct-to-home (DTH) broadcasting service providers</li> <li>3. Rationalized taxes by Introduction of progressivity in profession tax</li> <li>4. Licence fee for liquor products</li> <li>5. Licence fee on bars in restaurants</li> </ol>	<ol style="list-style-type: none"> <li>1. PPP model for road infra</li> <li>2. Ban on recruitment in all sectors, excluding essential sectors and recruitment if required to be done only on contract basis</li> </ol>
Punjab		1. Austerity measures
Rajasthan		<ol style="list-style-type: none"> <li>1. Computerization of PDS</li> <li>2. PPP model for transport infra</li> </ol>
Tamil Nadu	<ol style="list-style-type: none"> <li>1. Raised tax rates: VAT on liquor</li> <li>2. Brought untaxed vegetable oil into tax net</li> <li>3. Rationalized motor vehicle tax</li> </ol>	1. PPP model in solid waste management in municipalities
Telangana		
Uttar Pradesh	<ol style="list-style-type: none"> <li>1. Royalty fee on non-agricultural use of water</li> <li>2. Licence fee for liquor products</li> </ol>	<ol style="list-style-type: none"> <li>1. PPP model for road infra</li> <li>2. PPP model in solid waste management in municipalities</li> <li>3. PPP model in sports infra</li> </ol>
West Bengal	1. Raised tax rates: VAT on luxury goods	1. Digitization of ration cards

	<p>2. Widened tax coverage of existing taxes by introducing a compensatory entry tax fund by levying a life-time tax on registration of vehicles and on entry of goods into local areas of the state</p> <p>3. Non-tax: User charges/cost recovery from social and economic services</p>	
<b>SPECIAL CATEGORY STATES</b>		
Arunachal Pradesh	<p>1. Introduced property tax to tap into real estate</p> <p>2. Non tax: Paper lotteries</p>	<p>1. e-PDS software application in all districts</p> <p>2. Establishment of food depot in all districts to bring efficiency</p> <p>3. PPP model for irrigation infra</p> <p>4. PPP model in healthcare</p> <p>5. PPP model in tourism infra</p>
Assam	<p>1. Rationalized luxury tax</p> <p>2. Licence fee for liquor products</p>	
Himachal Pradesh	<p>1. Raised tax rate: VAT on tobacco</p>	<p>1. Computerization of PDS</p>
J & K	<p>1. Raised tax rate: VAT on tobacco and liquor</p> <p>2. Rationalized tax by Upward revision of the toll rate</p>	<p>1. Austerity measures</p> <p>2. Recruitment through the stipendiary mode</p> <p>3. Outsourcing of different government activities</p>

	3. Non-tax: User charges/cost recovery from social and economic services	
Manipur		1. Austerity measures
Meghalaya	1. Raised tax rate: VAT on liquor. Excise duty on liquor and beer 2. Non-tax: User charges/cost recovery from social and economic services	1. Posts identified as redundant
Mizoram	1. Non-tax: User charges/cost recovery from social and economic services	1. Computerization of PDS
Nagaland	1. Non-tax: User charges/cost recovery from social and economic services	
Sikkim		1. Austerity measures
Tripura		
Uttarakhand		1. Computerization of PDS 2. PPP model in healthcare
NCT Delhi		

**Table A.5: Major fiscal reforms in states of India during 2014-15**

STATE	REVENUE	EXPENDITURE
Andhra Pradesh	1. Financial Restructuring Plan for State Power Utilities	

Bihar	1. Financial Restructuring Plan for State Power Utilities	
Chhattisgarh		
Goa		
Gujarat		
Haryana	1. Financial Restructuring Plan for State Power Utilities  2. Started issuing securities of less than ten years maturities	
Jharkhand	1. Financial Restructuring Plan for State Power Utilities	
Karnataka		
Kerala		
Madhya Pradesh		
Maharashtra		
Odisha	1. Started issuing securities of less than ten years maturities	
Punjab	1. Started issuing securities of less than ten years maturities	

Rajasthan	1. Financial Restructuring Plan for State Power Utilities	
Tamil Nadu	1. Financial Restructuring Plan for State Power Utilities, 2. Started issuing securities of less than ten years maturities	
Telangana	1. Financial Restructuring Plan for State Power Utilities	
Uttar Pradesh	1. Financial Restructuring Plan for State Power Utilities	
West Bengal		
Arunachal Pradesh		
Assam		
Himachal Pradesh		
J & K		
Manipur		
Meghalaya		
Mizoram		
Nagaland		

Sikkim		
Tripura		
Uttarakhand		

**Table A.6: Major fiscal reforms in states of India during 2015-16**

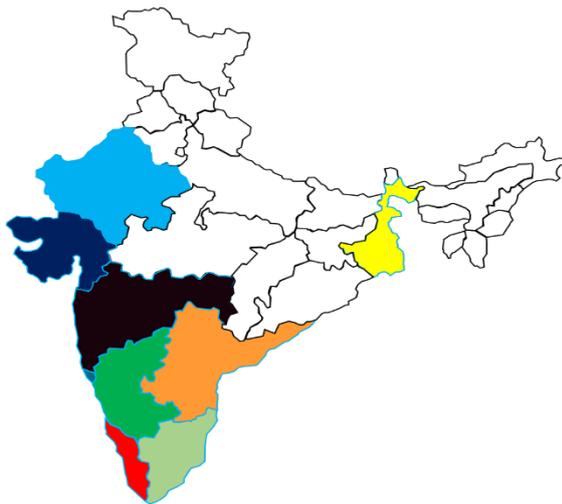
STATE	REVENUE	EXPENDITURE
Andhra Pradesh	Voluntarily joined UDAY	
Bihar	Voluntarily joined UDAY	
Chhattisgarh	Voluntarily joined UDAY	
Goa		
Gujarat	Voluntarily joined UDAY	
Haryana	Voluntarily joined UDAY	
Jharkhand	Voluntarily joined UDAY	
Karnataka		
Kerala		
Madhya Pradesh	Voluntarily joined UDAY	
Maharashtra		
Odisha	Voluntarily joined UDAY	
Punjab	Voluntarily joined UDAY	
Rajasthan	Voluntarily joined UDAY	

Tamil Nadu		
Telangana		
Uttar Pradesh	Voluntarily joined UDAY	
West Bengal		
Arunachal Pradesh		
Assam		
Himachal Pradesh	Voluntarily joined UDAY	
J & K	Voluntarily joined UDAY	
Manipur		
Meghalaya		
Mizoram		
Nagaland		
Sikkim		
Tripura		
Uttarakhand	Voluntarily joined UDAY	

## Appendix 3: Does Kerala overspend on the social sector?

Kerala is one of the better doing states in India as far as the social development is concerned. The state has been doing consistently better than the other Indian states on various social indicators. This high social development can be attributed to multiple reasons like various social movements aimed at bringing the underprivileged and marginalized into the mainstream, history of a welfare governments etc. However, we have done this study from a Public Finance perspective as how much the state government is having to incur to achieve such social outcomes? Also, is the spending efficient when compared with similar states? In order to address this, we have chosen a set of comparable states and have compared spend with that of Kerala to see where exactly does Kerala stand as far as the efficiency of spend is concerned. The majority of data taken for this study is secondary data accessed from various government of India websites.

### Our Comparative States for Analysis

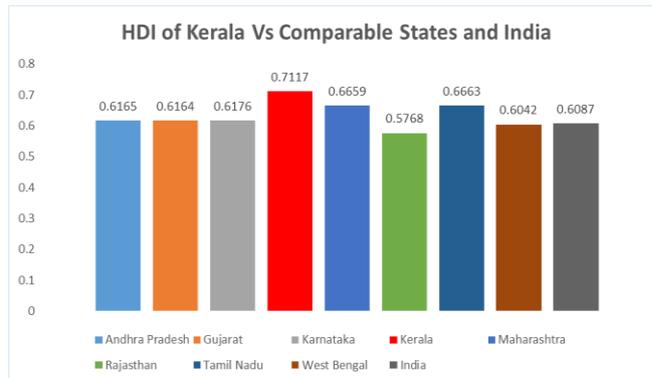


The seven states chosen for our comparative analysis have been chosen on different factors like political profile, better doing Industrial states, better doing states on public delivery of social services front etc. Based on these we have chosen the following seven states for our analysis-

1. **Karnataka, Andhra Pradesh, Tamil Nadu**  
- All other three south Indian states apart from Kerala
2. **Rajasthan** – Better doing state on the front of public delivery of health and education
3. **Gujarat and Maharashtra** – Better off doing industrial states
4. **West Bengal**- Mostly welfare state and similar political governance

## Kerala's Superior Social Statistics

Kerala is a state which is known for its high social indicators. Within the social statistics we will first look at the HDI of state against its comparable states and where it stands in the regional comparison



on a global scale

If we look at the HDI, Kerala has highest HDI among Indian states. In regional comparisons, its HDI is comparable to the East Asian countries and the pacific countries .If Kerala were a country, its hypothetical rank would be 104 based on

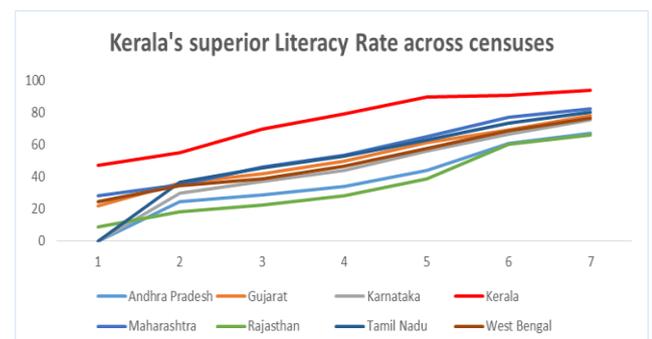
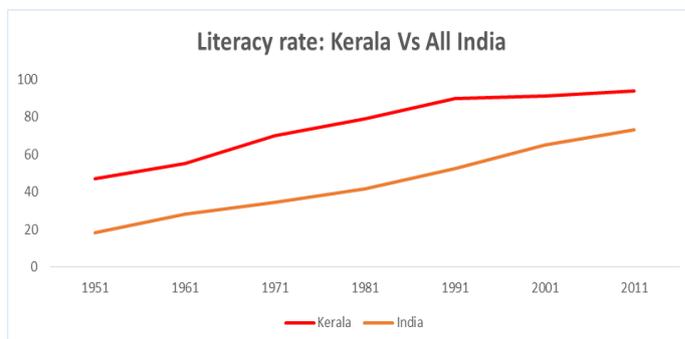
the current HDI score which is nearly equal to that of Maldives. The higher HDI of Kerala is a reflection of higher life expectancy, higher per capita income and high education standards

## Kerala on the Education Front: Literacy & Enrolment

If closely observed Kerala on Education front has the best record in India whether that be in the Literacy or the Enrolment front.

### 1. Literacy Rate

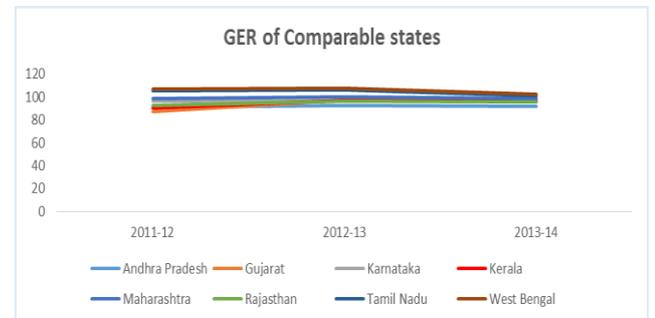
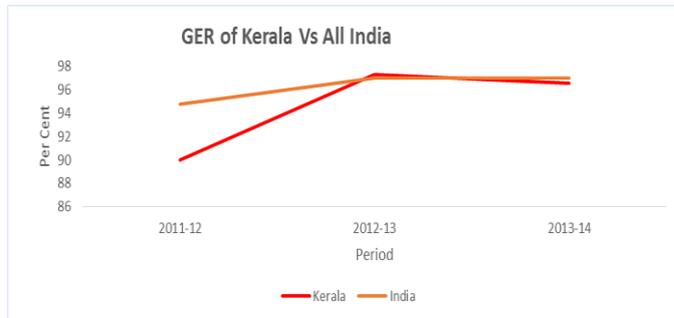
In Census 2011, All India average literacy stood at 73% whereas the same for Kerala was 94%. And on 12th Jan 2016, Kerala became 1st state in the country to achieve 100% primary education. Even



among the comparable states, even though the comparable states' literacy is converging the Kerala's literacy rate, Kerala is far ahead of them

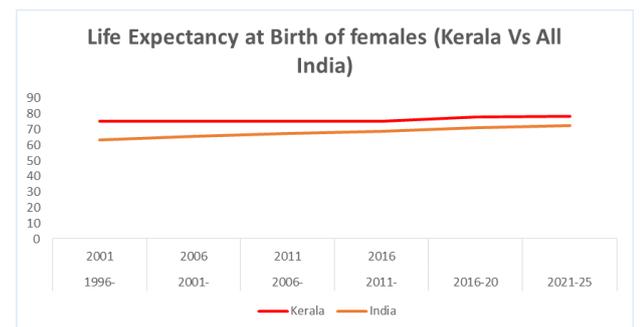
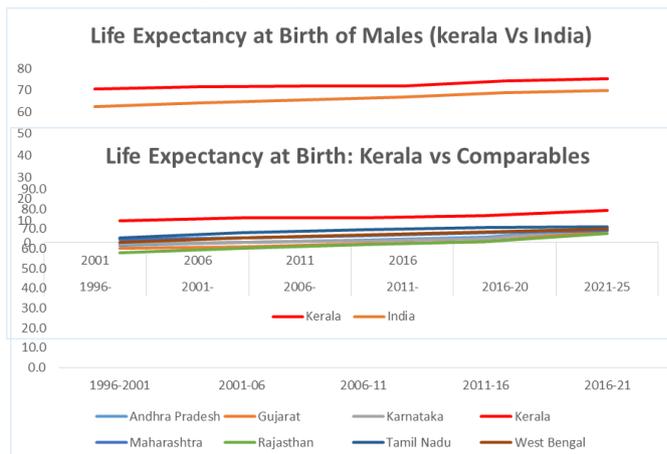
## 2. GER

On the GER front, GER of Kerala has improved consistently over the past five years and is now equal to the national average. Among our comparable states, Kerala does not have the highest GER and is still catching up with some of the comparable states.



## Kerala on the Health Front: Life Expectancy, IMR, MMR, Sex Ratio

### 1. Life Expectancy

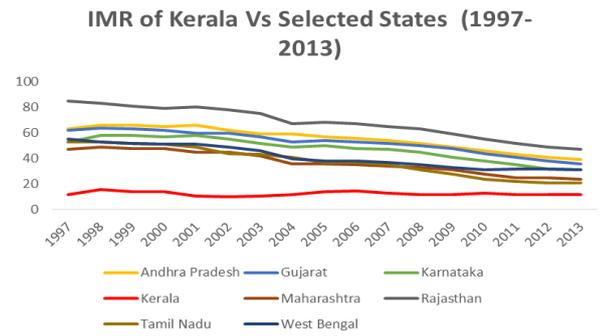
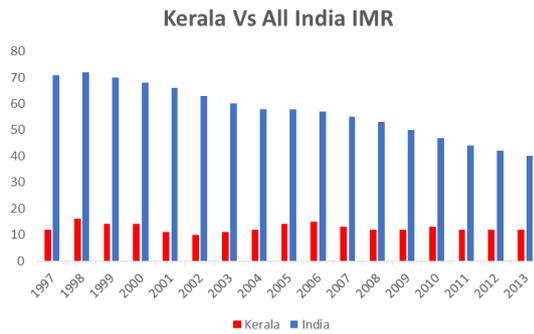


Historically, Kerala has had higher life expectancy than all India average as can be seen from the above charts both for males

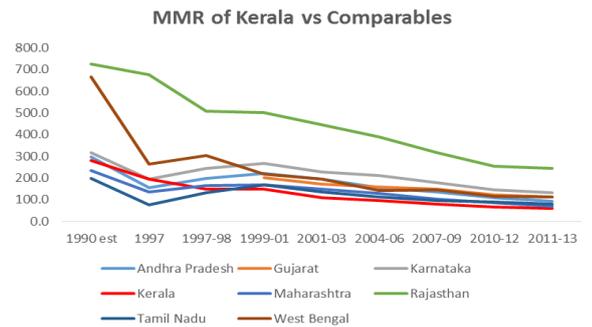
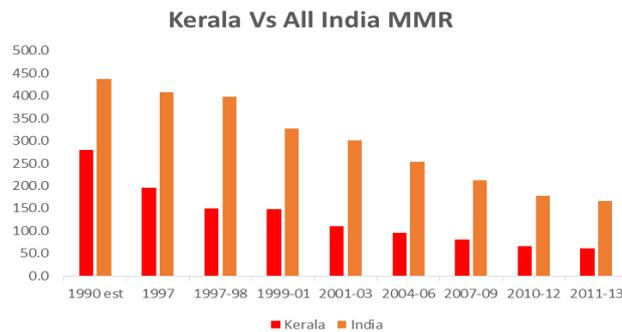
and females. From the period 2011-16, the Life Expectancy at Birth was 66.9 for males and 68.8 for females for India whereas the same for Kerala was 72 and 75 respectively.

Even among the comparable states, Kerala has been exhibiting a higher Life Expectancy at Birth across the time periods as can be observed from the graph. Off late, the comparable states' Life expectancy at birth is converging that of Kerala yet Kerala is ahead of them.

## 2. IMR and MMR

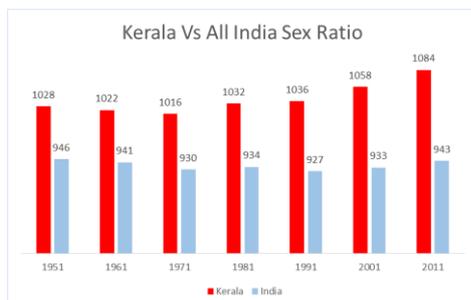


On the front of IMR and MMR, Kerala does a lot better than comparable states and all India average. According to the 2013 data, all India IMR was 40 whereas the same for Kerala was 12. It is interesting to notice that Kerala's IMR has remained at 1997 levels of 12 with further improvement since then.



On the MMR front also, Kerala has been doing much better than the all India average and the comparable states. MMR during 2011-13 stood at 61 for Kerala whereas the same for all Indian states was 167.

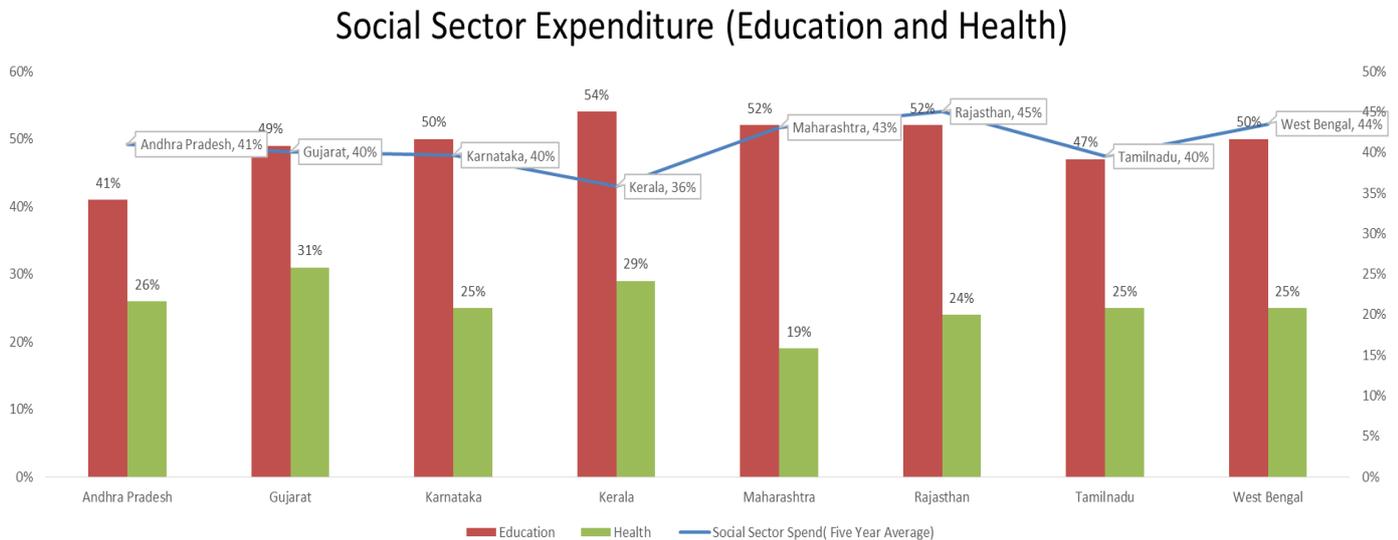
## 3. Sex Ratio



Kerala is the only state with positive sex ratio (Puducherry amongst the UTs has 1037) in the country. According to the census 2011 data, all India sex ratio was 943 whereas that for Kerala was 1043. The positive sex ratio is the result of the effort made in the direction of creating an educated citizenry and stopping female foeticide.

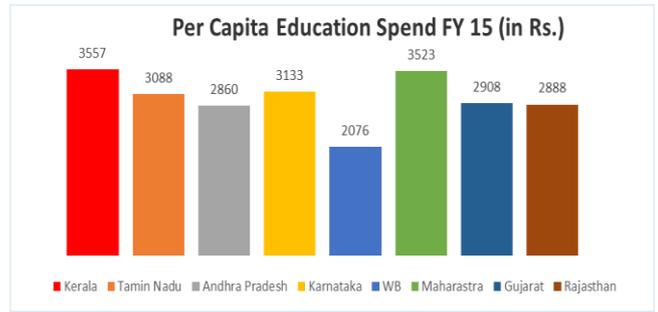
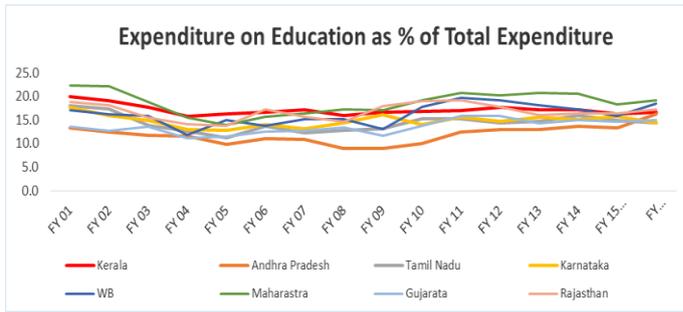
## Kerala's Spending Pattern

After having seen the superior social statistics both in the education and health front, let's try to analyze Kerala's spending pattern in the social sector and let's see how much the government is having to spend to achieve such outcomes.

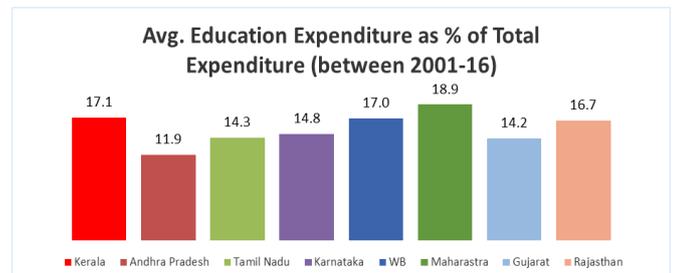
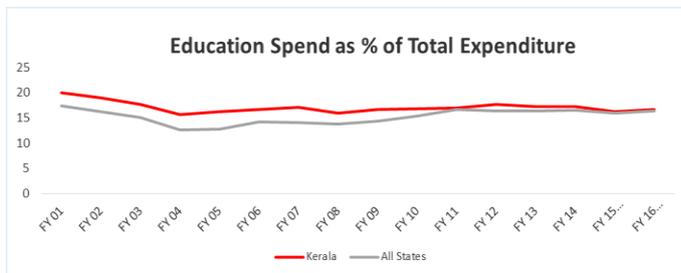


In the above graph, social sector spend taken is last 5 years' average spend as percentage of aggregate expenditure. It can be observed from the above chart that Kerala's social sector expenditure as percentage of aggregate expenditure is lowest among the comparable states. Though when we take health expenditure as per cent of total social sector expenditure Kerala's spend is highest among the comparable states. Similarly when we take Education expenditure as per cent of aggregate expenditure it is highest after Gujarat. ***Thus it can be conclusively said from here that majority of Kerala's social sector spend has been in the area of education and health.***

## Comparative Analysis of Education Expenditure

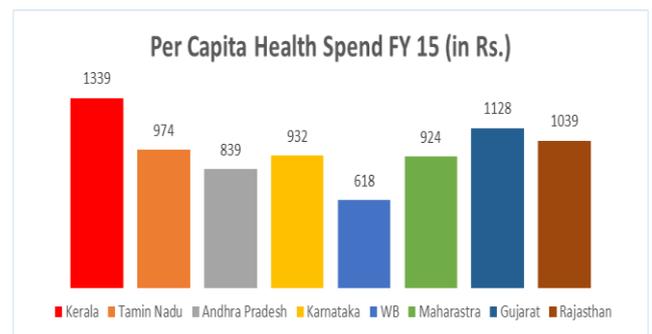
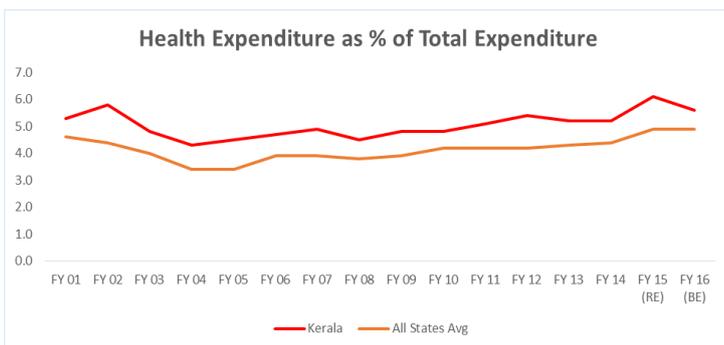


Education spend of Kerala as % of total expenditure has been high compared to all India average, however lately they are converging as other states like CG and Bihar are increasing spending on education. For the comparable states also, line graph shows a converging trend. Per capita education

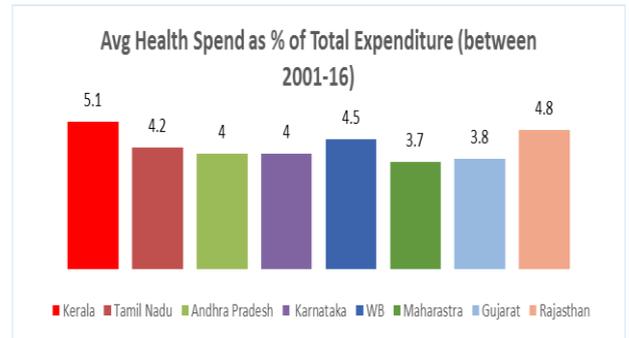
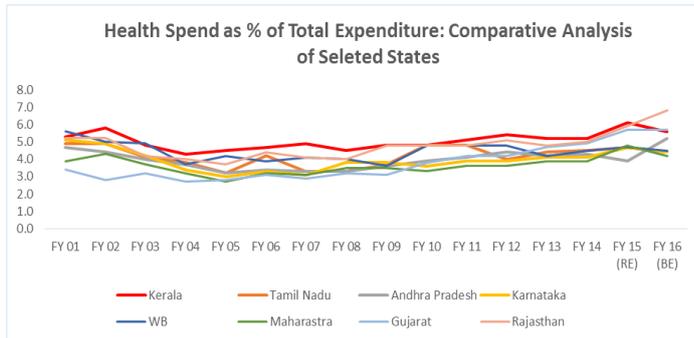


spend of the selected states is close to Kerala for FY 15, except WB which shows an increasing larger social commitment of the states on education which has also been reflecting on their increased literacy rate and increased GER

## Comparative Analysis of Health Expenditure



Kerala's health expenditure as percentage of aggregate expenditure has been consistently higher than the national average. Also the per capita spend on health has also been higher than the comparable



states.

If we compare with respect to the comparable states, Kerala has been spending a higher proportion on health than its comparable states. Spend of Gujarat is rising consistently over the years both as % of total expenditure and per capita whereas for Kerala it has been consistently in the bracket of 5-6 %.

### Kerala's Spending Efficiency

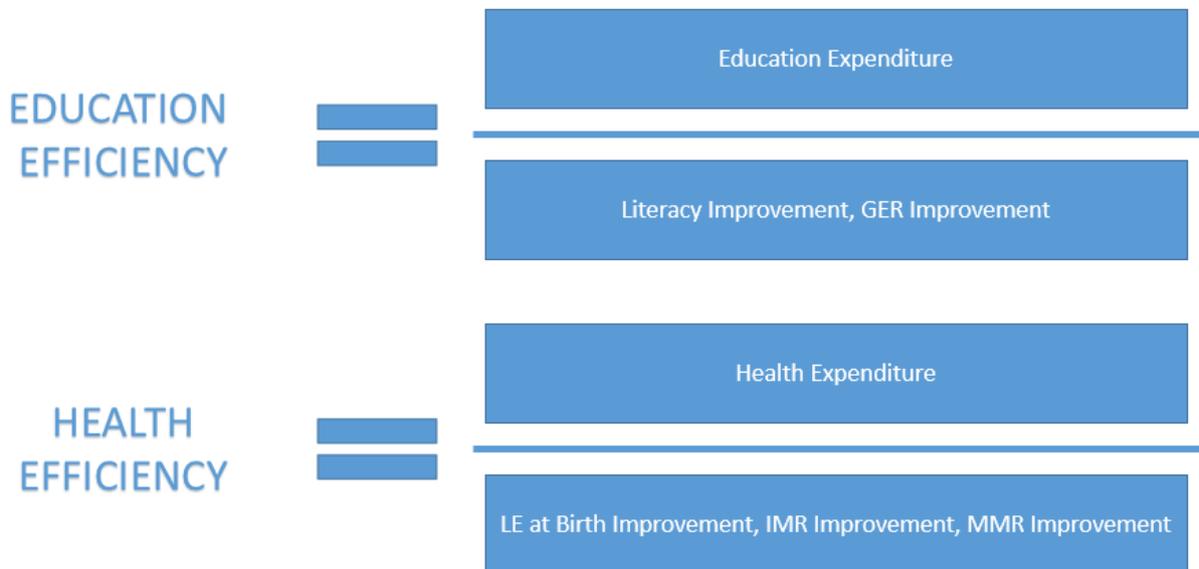
In a welfare country or state, it is imperative for governments to spend on social sector. Therefore, the significance of measurement of efficiency in social sector spending of a state is questionable as governments anyway have to spend in this area. Naturally, people would ask why to question governments on their efficiency if they anyway have to spend. In our opinion, this is precisely the very reason for which we must have efficiency measurement of public spend. In a democracy, no institution is unquestionable including government. An efficiency analysis would give government a tool to compare its performance across years, across central and state governments. It would provide a measure of credibility for state finances and the improving states could be rewarded with credit at preferential rates to finance their development.

### Methodology:

To calculate any kind of efficiency, the general approach is to divide output by input, which gives us output per unit input. The higher this number, the higher the efficiency. Since our research is focused on spending prudence, we have rather used input to output ratio. This approach gives us a number in monetary units and we are able to answer the question, "Does Kerala Overspend in Social Sector?" Our input is money spent on education and health and output are improvement in various parameters of social wellness.

For education, we have selected literacy rate and Gross Enrolment Ratio as outcome parameters. For health, we have selected Life Expectancy at Birth, Infant Mortality Rate and Maternal Mortality Rate as outcome measurement parameters. Following diagram summarizes our approach. The output is taken

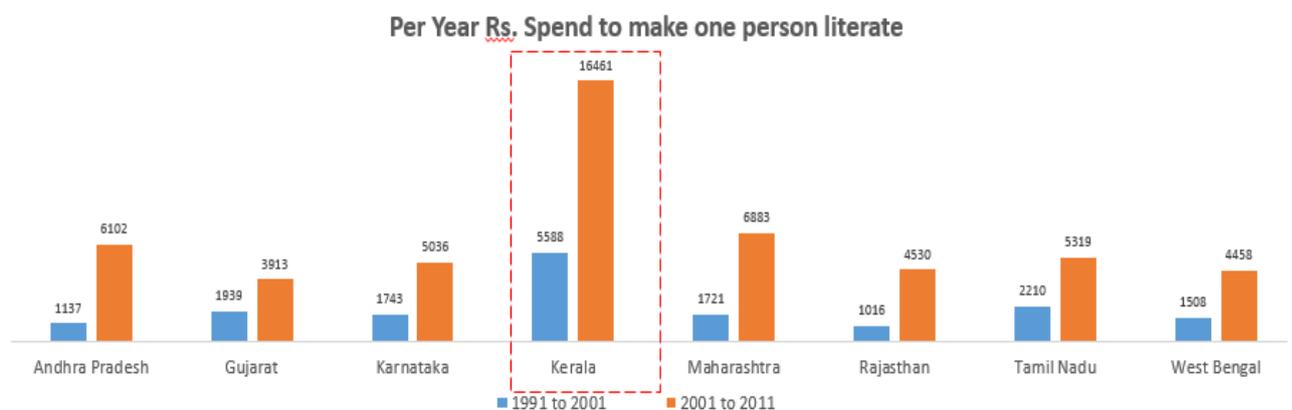
as an improvement in the abovementioned education and health parameters compared to a previous time period, not the absolute value of them because we assume that whatever has been spent must give improvement in these parameters. The input is the amount government is having to spend on that parameter. The efficiency would be measured as how much the government is having to spend to bring an improvement in output by one unit.



Now we would analyze efficiency one by one on various parameters.

### Education (Literacy Rate)

Following graph gives us Per Year Rs. Spend to bring one person into the literacy bracket. The blue column gives per year average spend to make one person literate from year 1991 to 2001. The orange column gives the same between 2001 and 2011.

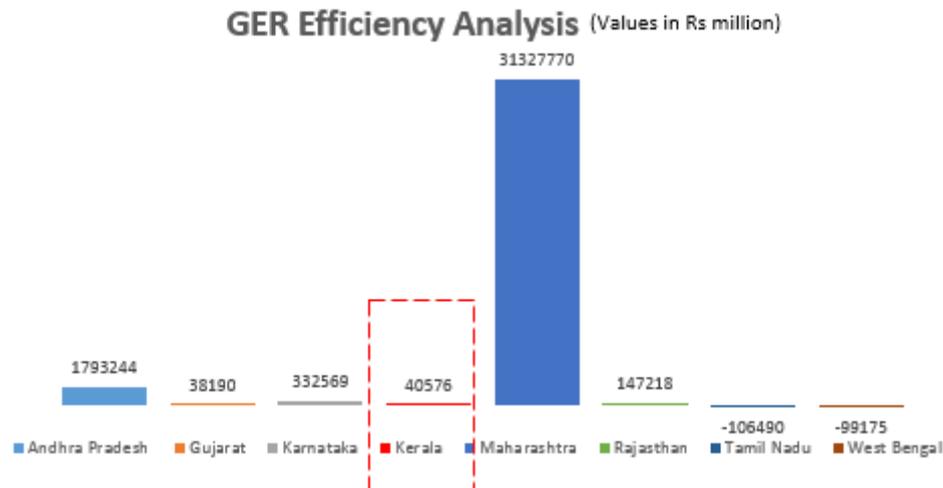


As can be observed from the above graph that *Kerala has been overspending over these years compared to comparable states*. Even though Kerala has had the highest literacy level, the spending continues to

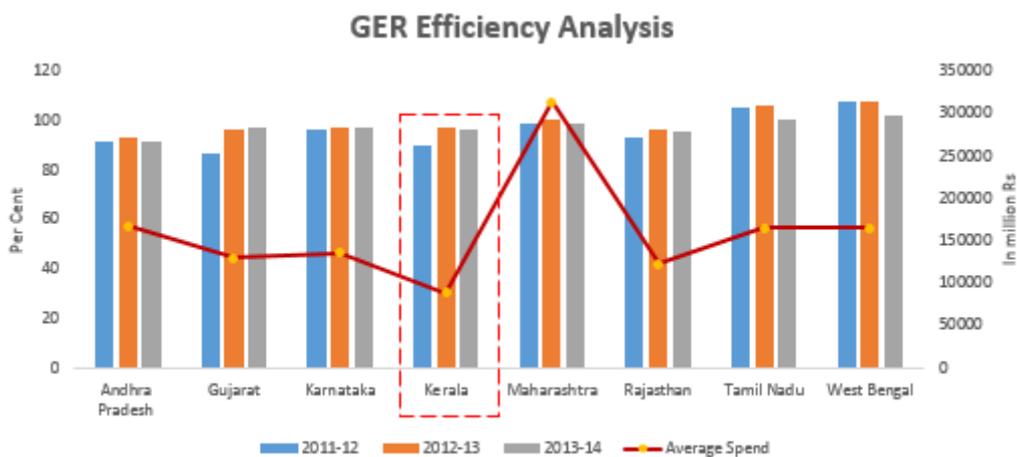
grow, more than trebled in one decade. Gujarat has achieved much success on this front despite spending less for the same.

### Education (Gross Enrolment Ratio)

Same method as mentioned above has been applied to calculate the efficiency of GER spend. Education spending has been divided by improvement in GER for respective years. Following graph has been obtained:



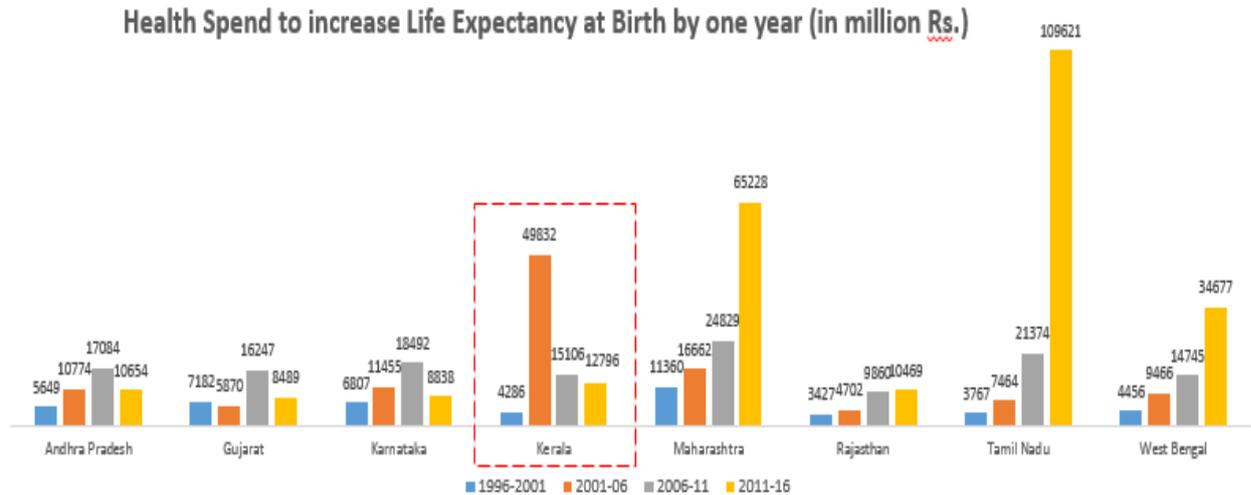
Kerala is performing well on this front as the number is very small compared to comparable states. The negative numbers for Tamil Nadu and West Bengal show that the GER has deteriorated in these state despite spending high on education. To give more clarity, we have also taken the following graph:



While Kerala’s numbers have improved over the years, Maharashtra has been consistently performing badly in this regard, as can be observed from the graph (despite spending the highest among the comparable states, Maharashtra’s GER has declined). Apart from Kerala, Gujarat, Karnataka and Rajasthan have done well in this regard.

## Health (Life Expectancy at Birth)

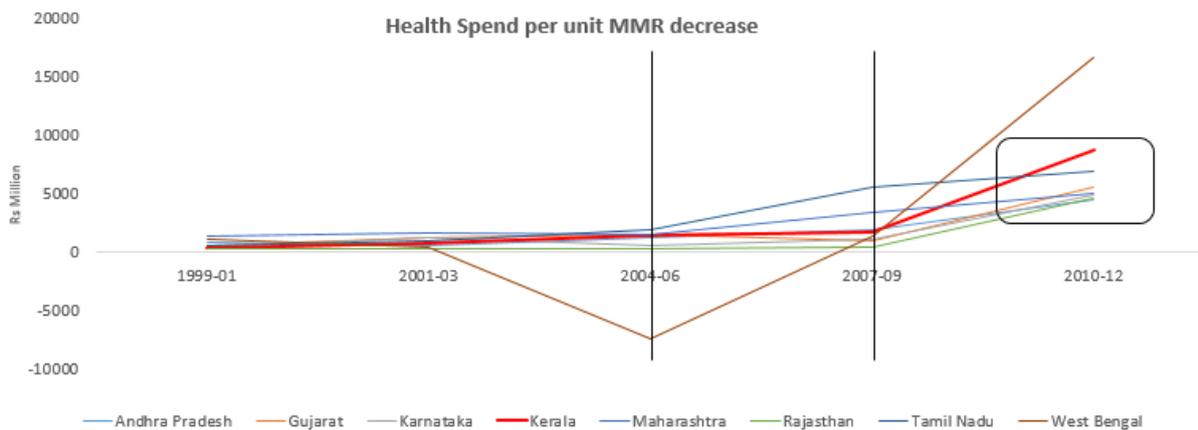
Same efficiency method has been applied. Health spends over the years have been divided by improvement in Life Expectancy at Birth. Following graph has been obtained:



Between the period of 1996-2001 and 2001-2006, Kerala's efficiency in this regard had deteriorated. However, since then Kerala has shown improved efficiency in spending against improvement in life expectancy at Birth. Maharashtra, Tamil Nadu and West Bengal have deteriorated in this regard. Gujarat, Rajasthan and Karnataka have emerged as efficiently spending state in this parameter.

## Health (Maternal Mortality Rate)

Same method has been used and following graph is obtained:

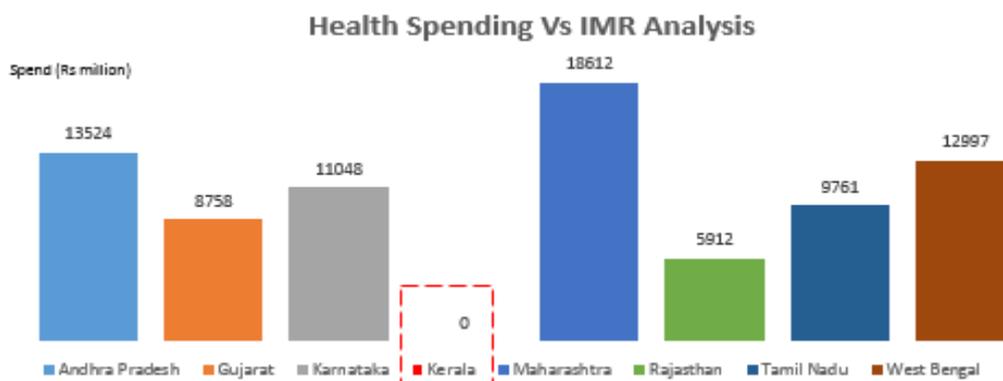


MMR of Kerala is among the lowest compared to other comparable states but the effect of its health spend is not efficiently reflected on MMR as shown in the graph as health spend to decrease MMR by one unit is rising sharply from 2007 onwards.

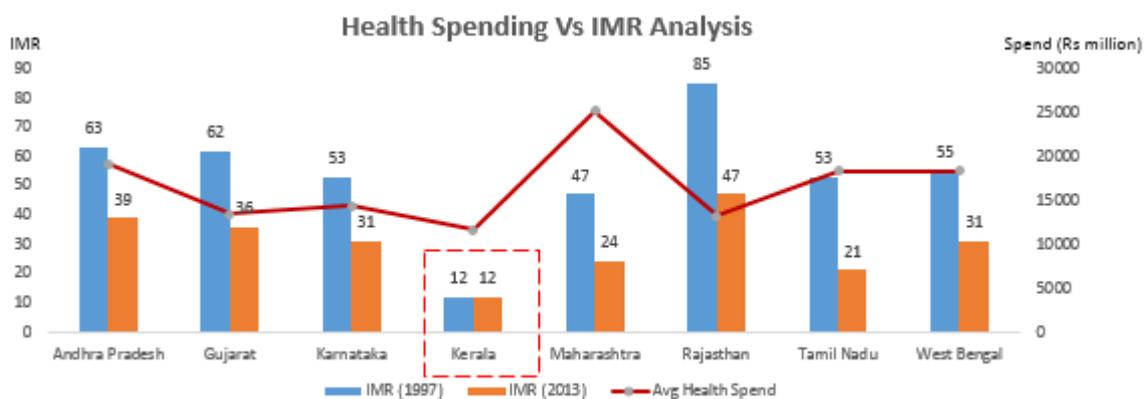
The vertical lines show three different patterns. The left most part shows that all states were spending similarly in this regard before 2004-06, except West Bengal. The middle part shows that some states Andhra Pradesh and Maharashtra started deviating from efficient spending group of states. The right most part gives present picture. Kerala so far has spent efficiently in this regard but now is starting to deviate more rapidly than other state. This could be a warning signal. Since 2001-03, West Bengal has not come in the comparable states bracket, which shows high inefficiency on its government part. Its MMR increased on many instances despite spending high on health.

### Health (Infant Mortality Rate)

The same method has been applied. Health spend has been divided by improvement in IMR data and following graph has been obtained:



Kerala shows highest efficiency in IMR vs Health Spend analysis but its IMR has been same since 1997. Following graph gives more clarity in this regard:



On IMR front, though Kerala's IMR is well below national average. However, *Kerala's IMR has been constant at the levels of 1997 despite increased health budget.* When compared to high HDI countries like Finland and Denmark, whose IMR is around 4, Kerala still has scope of improvement on IMR front. Thus there is huge inefficiency as far the health spend on the reducing IMR front is concerned. *Maharashtra is the most inefficient state in this analysis.*

## Summary of Analysis

Based on all the above analysis on education and health parameters, the efficiency of spend results have been summarized as below-

Parameter	Efficient
Education Spend vs Literacy Rate	X
Education Spend vs Gross Enrolment Ratio	✓
Health Spend vs Life Expectancy at Birth	✓
Health Spend vs IMR	X
Health Spend vs MMR	✓

## Recommendations

We have following policy recommendations based on our study and findings

- The lower spend to make one person literate by Gujarat can be attributed to *low cost education delivery models like Gyanshala*, where the significant educational costs like teacher's salary cost, infrastructure cost etc. has been significantly brought down. Kerala can take inspiration from this model
- Kerala can take help from consulting firms to create performance matrices (like optimum student-teacher ratio, student-school ratio, optimum class size in education sector and optimum doctor-patient, bed to hospital ratio in health sector) and identify where spending leakages are happening and adopt processes to fill those gaps to increase its ROI on Education
- The government can create a policy regarding use of CSR money into education and health, which can be used as additional fund for education and health expenses and divert its own funds towards capex
- Deployment of ICT into education and health sector can help government reach to masses without incurring significant cost
- Explore Public Private partnership in Child care to reduce IMR further as it has remained at constant levels post 1997
- Government should start emulating models of countries like Brazil and South Korea and become the Payer and should not remain provider of healthcare service. This would enable

government to free up resources resulting in huge cost saving and would improve the health indicators like IMR etc.

- As the literacy level of a state rises, it becomes more and more difficult for a government to further increase literacy because now more interior parts of state geography have to be accessed. In this regard Kerala can map low literacy areas by districts or blocks and divert its resources on them for better outcome at low cost. Also urban Kerala has already entered the self-sustaining mode in education, in which society itself promotes education

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6. RBI Study of State Finances : A Study Of Budgets & Office of the Registrar General and Census Commissioner, India & Planning Commission, Govt. of India
7. LE Calculation Methodology Explained : <http://blogs.worldbank.org/opendata/what-does-life-expectancy-birth-really-mean>
8. <http://www.tradingeconomics.com/india/health-expenditure-public-percent-of-government-expenditure-wb-data.html>
9. [http://www.ey.com/Publication/vwLUAssets/role-of-private-sector-on-K-12-education-in-India/\\$FILE/EY-role-of-private-sector-on-K-12-education-in-India.pdf](http://www.ey.com/Publication/vwLUAssets/role-of-private-sector-on-K-12-education-in-India/$FILE/EY-role-of-private-sector-on-K-12-education-in-India.pdf)

## **Appendix 4: Proceedings of a seminar on 'Kerala state finances' held on 18 February 2017, at IIM Kozhikode Campus**

Indian Institute of Management, Kozhikode in association with NITI Aayog conducted a one-day seminar on Kerala State Finances: Problems and Prospects on 18<sup>th</sup> February 2017, Saturday from 9.30 am to 4.30 pm which was attended by intellects from various organizations and institutes, faculty and students from universities and colleges, researchers and other interested members of the public.

The delegates were welcomed by Prof. Sthanu R Nair, Associate Professor, IIM Kozhikode. The special invitees of the seminar, Shri Ajay Kumar Nema, Director and Shri S Lakshmanan, Research Associate from the Financial Resources Division of NITI Aayog graced the occasion with their presence. They explained why it is significant to study the state finances and the importance of identifying the ways to improve the fiscal situations of the state economies.

The program was scheduled across three technical sessions. The first technical session was moderated by Prof. Pulapre Balakrishnan, Senior Fellow – IIM Kozhikode and also Professor at Ashoka University, Sonapat.

Prof. B A Prakash, Chairman, State Finance Commission, spoke on the acute fiscal crisis facing Kerala. He mentioned that the state places low priority to raising own resources. He pointed out that while pay revision happens every five years, the tax and non-tax rates on public services have not been revised for decades. He felt this would lead to fiscal anarchy in 2017-18 and by 2021 the state is likely to default on salaries, pensions and loan repayment. Prof. Pinaki Chakraborty of the National Institute of Public Finance and Policy discussed the evolution of centre-state financial relations. He said that the extent of untied transfers to states from the centre has gone up but the states are expected to spend the money judiciously. He anticipated a fiscal contraction of states in case the recommendations of the FRBM review committee to limit debt to 20% of GDP get implemented.

In the second technical session, Prof. Soumyatanu Mukherjee, Assistant Professor, IIM Kozhikode moderated the presentation. Prof Sthanu R Nair, Prof Rudra Sensarma and Rajalakshmi T of the IIM Kozhikode discussed their research findings on the trends in Kerala state finances. They argued that while debt appears to be under control but rising revenue deficit and interest payments at the cost of capital spending is a concern. While expenditure on

economic and social services in Kerala have shown an increase, they have not risen in proportion to the state's economic growth. On the revenue front, own tax revenues have declined as a share of GDP and tax revenue collection has not been efficient. The healthy growth exhibited by non-tax revenues was on account of lottery sales. Prof K Pushpangadan, former Chairman of the Public Expenditure Review Committee highlighted the importance of studying the link between decentralization and growth. He emphasized the need to study the efficiency of government spending by studying outcomes.

The moderator of the third technical session was Prof. Ashok Thomas, Assistant Professor, IIM Kozhikode. Prof Jose Sebastian of the Gulati Institute of Finance and Taxation demonstrated that Kerala does not realize its full revenue potential in spite of having the highest per capital consumption expenditure in India. He criticized the focus of revenue collection being limited to three commodities – alcohol, petrol and motor vehicles. Even the share of revenues from gold business is very small compared to the huge growth in consumption of the yellow metal. He felt that resources are collected from the poor in the form of alcohol and lottery sales but benefits are enjoyed by the rich such as in the form of subsidies on education. Prof K R Shanmugam of the Institute of Financial Management Research, Chennai, showed that Kerala is the only state in Southern India whose debt is not sustainable. He pointed towards the history of VAT introduction in 2005 which led to higher inflation rates in Indian states and anticipated a similar outcome from the introduction of GST.

Rakesh Kumar Yadav and Divyanshu Jain, students of IIM Kozhikode presented an analysis of efficiency of spending of Kerala government in the social sector. They showed that although the state has achieved high social outcomes, the state government's spending in the health sector is not efficient compared to similar states of India. P Brijesh of the Reserve Bank of India showed that states have crossed the FRBM limit of gross fiscal deficit of 3% of GDP. He demonstrated that capital expenditure is important for economic growth but unfortunately Kerala has not spent sufficiently on asset creation and has instead generated high revenue deficit. Prof Rudra Sensarma offered concluding remarks and thanked the audience. The audience were able to participate in the discussions by sharing their perspectives and getting their questions answered.