

# Project Structuring and Financing in Kerala

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**Abstract:** Inadequate infrastructure is considered to be the biggest stumbling block in any country's growth. The economic plans and strategies would reach a dead end on this point alone. The general disillusionment with the public sector's performance, its inefficient and insensitive approach to consumer needs and government's poor fiscal position has triggered the breaking up of the government monopoly over infrastructure. While, there are several dimensions to the issue of private participation in infrastructure projects, the financing of such projects requires special attention. This study makes an attempt to have an overview of Financing Infrastructure through Project Financing and to examine the constrains in terms of finding adequate resources for financing infrastructure projects.

**Key words:** Infrastructure, Project Financing, resources, infrastructure projects, Government initiatives

## I. INTRODUCTION

Infrastructure sector is a key driver for the Indian economy. The sector is highly responsible for propelling India's overall development and enjoys intense focus from Government for initiating policies that would ensure time-bound creation of world class infrastructure in the country. Infrastructure sector includes power, bridges, dams, roads and urban infrastructure development. In 2016, India jumped 19 places in World Bank's Logistics Performance Index (LPI) 2016, to rank 35th amongst 160 countries. India requires a solid backbone of infrastructure and a similar situation besets AP as well. Historically, investments in the infrastructure sector, particularly in the roads and highways, were being made by the Government mainly because of the large volume of resources required, long gestation period, uncertain returns and various associated externalities. The huge resource requirements and the concern for efficiency has made the Government move from a traditional way of "provider of services" to "facilitator and regulator of services". This has given way for Public Private Partnership models. PPP means an arrangement between a government or government owned entity on one side and a private sector entity on the other, for the provision of public assets or related services for public benefit, through investments being made by and management undertaken by the private sector entity for a specified time period, where there is a substantial risk sharing with the private sector and the private sector receives performance linked payments that conform to specified, pre-determined and measurable performance standards.

Inadequate infrastructure is considered to be the biggest stumbling block in any country's growth. The economic plans and strategies would reach a dead end on this point alone. The general disillusionment with the public sector's performance, its inefficient and insensitive approach to

consumer needs and government's poor fiscal position has triggered the breaking up of the government monopoly over infrastructure. As governments shift their position from being infrastructure providers to facilitators, private entrepreneurs, banks and financial institutions (FIs) assume a more direct role. Concerted actions for bringing in more private participation in economic infrastructure have already been initiated by governments and other authorities. The whole gamut of issues centre on the strategy to commercialise infrastructure. While, there are several dimensions to the issue of private participation in infrastructure projects, the financing of such projects requires special attention. This study makes an attempt to have an overview of Financing Infrastructure through Project Financing and to examine the constrains in terms of finding adequate resources for financing infrastructure projects.

## II. OBJECTIVES OF THE STUDY

1. To have an overview of Financing Infrastructure through Project Financing and to know the main financing mechanisms for infrastructure projects.
2. To examine the constrains in terms of finding adequate resources for financing infrastructure projects and to study the major Government initiatives for infrastructure projects

## III. RESEARCH METHODOLOGY

The study conducted is based on descriptive research design. The required information was collected from secondary sources. The secondary data are collected from reports of Economic Review, research articles, journals, books, magazines, websites, study reports of the expert committee and commissions, working paper etc. Besides, different books, newspapers, articles, journals, magazines and web sites were also referred for the purpose.

#### IV. MAIN FINANCING MECHANISMS FOR INFRASTRUCTURE PROJECTS

A number of financing mechanisms are available for infrastructure projects, and for public-private partnership (PPP) projects in particular.

- Government Funding
- Corporate or On-Balance Sheet Finance
- Project Finance

##### i. Government Funding

The Government may choose to fund some or all of the capital investment in a project and look to the private sector to bring in expertise and efficiency. This is generally the case in a so-called Design-Build-Operate project where the operator is paid a lump sum for completed stages of construction and will then receive an operating fee to cover operation and maintenance of the project. Another example would be where the Government chooses to source out the civil works for the project through traditional procurement and then brings in a private operator to operate and maintain the facilities or provide the service.

Even where Governments prefer that financing is raised by the private sector, increasingly Governments are recognizing that there are some aspects of the project or some risks in a project that may be easier or more sensible for the Government to take.

##### ii. Corporate or On-Balance Sheet Finance

The private operator may accept to finance some of the capital investment for the project and decide to fund the project through corporate financing – which would involve getting finance for the project based on the balance sheet of the private operator rather than the project itself. This is typically the mechanism used in lower value projects where the cost of the financing is not significant enough to warrant a project financing mechanism or where the operator is so large that it chooses to fund the project from its own balance sheet.

The benefit of corporate finance is that the cost of funding will be the cost of funding of the private operator itself and so it is typically lower than the cost of funding of project finance. It is also less complicated than project finance. However, there is an opportunity cost attached to corporate financing because the company will only be able to raise a limited level of finance against its equity (debt to equity ratio) and the more it invests in one project the less it will be available to fund or invest in other projects.

##### iii. Project Finance

One of the most common - and often most efficient - financing arrangements for PPP projects is “project financing”, also known as “limited recourse” or “non-recourse” financing. Project financing normally takes the form of limited recourse lending to a specially created project vehicle (special purpose vehicle or “SPV”) which has the right to carry out the construction and operation of the project. It is typically used in a new build or extensive refurbishment situation and so the SPV has no existing business. The SPV will be dependent on revenue streams from the contractual arrangements and/or from tariffs from end users which will only commence once construction has been completed and the project is in operation. It is therefore a risky enterprise and before they agree to provide financing to the project the lenders will want to carry out an extensive due diligence on the potential viability of the project and a detailed review of whether the project risk allocation protects the project company sufficiently. This is known commonly as verifying the project’s “bankability”.

#### V. FINANCING INFRASTRUCTURE THROUGH PROJECT FINANCING

During the recent years, project finance, which was mainly used for mining and natural resource projects, has been used for variety new projects also. In developing countries, because of the inadequate availability of public funds, the government have decided to privatize the state-owned companies or infrastructure development.

The annulled created, due to the exit by the government, in the infrastructure development was filled in by the private sector. The simultaneous deregulation and globalization also forced the companies to look for new ways to raise funds for their capital investments and to conduct their businesses. The scarcity of natural resources also has forced the companies to look for untapped areas for development to overcome this constraint. In this scenario, the project finance industry has witnessed smooth sailing as well as seen rough weather since the beginning of the new millennium.

With respect to industrial-sector usage, project finance has largely been concentrated in the power, telecom, and infrastructure projects with approximately 71 per cent of the total investment in 2004 being allotted to these sectors. The infrastructure sector has seen a positive growth rate over the period from 12 per cent in 2000 to 17 per cent in 2004, with a CAGR of 15 per cent. However, the power and telecom sectors saw a decline during the same period with a CAGR of -6 per cent and -32 per cent respectively. The decrease could be the outcome of the high default rate in the power projects, while the expected boom which never materialized left the telecom sector companies with

overcapacity which forced more than 50 companies to go bankrupt. On the other hand, there has been an unprecedented increase in the usage in oil and gas, industrial and mining sectors with a CAGR ranging between 25-54 per cent. This increase can be attributed to the change in government policies worldwide and the distress in power and telecom sectors, but still in terms of the amount, these sectors are relatively small but growing. Project finance is largely used across the globe in the power sector with 37 per cent during the 2000-06 period, with the Americas accounting for 54 per cent of the total. In the telecom sector, the Americas and Asia Pacific region have only 30 per cent share and Europe, the Middle East and Africa accounted for 7 per cent.

### Project Financing

Project finance refers to the financing of a single or small discrete group of infrastructure assets on a stand-alone basis. "Stand alone" means that the debt and equity investors in the projects only earn their returns from the earnings of the projects, not from any growth of the company sponsoring them. For example, an investor in a project financed power generation project will only be earn returns from what that project makes, it does not benefit from all the other activities of the electric utility that might purchase the power generated (e.g. no revenues from transmission or distribution of power, or selling energy services to customers). If the project fails, the investment fails. Therefore, project financing presents different risks than corporate financing.

Project finance is a structured finance technique based on norms developed over decades. The underlying principal of project finance is allocating risks – construction risk, pricing risk, operating risk – among investors, operators, builders, lenders. These risks change and evolve over time, for example, the construction stage presents greater risks than the operating stage. Navigating the project finance conventions evolved to allocate and manage these changing layers of risk to a successful has been compared to threading a needle, or assembling a jigsaw puzzle.

### Advantages of Project Finance

As the long-term demand for capital and infrastructure is at a critical juncture and the present magnitude and growth clearly indicate that the future prospects of project finance are very strong and positive, the financial managers, bankers and government officials should understand the advantages of project finance and take advantage to create value additions by using the same positive trends. They should also realize that project finance-structured investment has a higher probability of providing the expected and targeted results in financial as well as operational scenarios. The motivations to use project finance are classified below as follows:

- i. **Risk Sharing Motivation:** The use of project financing can help the companies to invest in risky projects which the company may have to forego because of the increased incremental distress cost. This incremental distress cost either direct or collateral, if sufficiently large, can exceed the project's Net Present Value (NPV), which makes the positive NPV turn into a negative NPV investment. Project finance also permits the sponsors to share the project risks with other stakeholders. The basic structure of project finance demands that the sponsors spread the risks through a network of security arrangements, contractual agreements, and other supplemental credit support to other financially capable parties willing to assume the risks. This helps in reducing the risk exposure of the project company.
- ii. **Reduced Underinvestment Problems:** The underinvestment occurs only when capital providers have asymmetric information about assets-in-place and investment opportunities. Project finance reduces asymmetric information by eliminating the need to value assets-in-place as project finance separates the current assets and potential investment opportunities. The highly leveraged firms have more trouble in financing attractive investment opportunities because of the existing high fixed financial burden. The use of corporate debt as per traditional financing can increase corporate leverage as it will increase the existing financial burden further, resulting in a failure to raise funds at all or at reasonable terms or cost, thereby forcing the investments to be non-profitable to the firms and this in turn can lead to firms being vulnerable to underinvestment. But project finance allows the firms to preserve scarce corporate debt capacity and borrow more cheaply than it could otherwise be possible. The use of secured debt can also reduce the leverage-induced underinvestment by allocating returns to new capital providers.
- iii. **Reduce Costly Agency Conflicts:** The costly agency conflicts arise when managers controlling the investment decisions and cash flows have different "Divergent Objectives" as compared to capital providers or shareholders. As the traditional methods of discipline are not so effective in project companies, the issue of separation of ownership and control is of paramount importance in project settings. The mechanism used to discipline managers of start-up firms as an opportunity for a liquidating event, such as an IPO or an acquisition, and the threat of staged-financing with contingent ownership are less effective in the context of project companies. Liquidating events are not possible as most of the projects have a limited life due to which asset values decline over time to zero. The project finance route empowers the providers of funds to decide how to manage the free cash flow that is left over after paying the operational and

maintenance expenses and other statutory payments. In traditional corporate forms of organization, corporate management decides on how to use the free cash flow — whether to invest in new projects or to pay dividends to the shareholders. Similarly, as the capital is returned to the funding agencies, particularly investors, they can decide for themselves how to reinvest it. As the project company has a finite life and its business is confined to the project only, there are no conflicts of interest between investors and the management of the company, as often happens in the case of traditional corporate forms of organization.

- iv. Achieving economy of scope: Project financing is especially applicable in cases of two or more manufacturers joining forces to build a new plant in the presence of the economy of scope in production. Concretely, two aluminium producers may decide to build a plant to process aluminium near the site where both partners have large bauxite basins at disposal. A similar example would be one of companies situated in a highly industrialized area, where they can agree on cooperation in terms of forming a joint venture. Thus they can rationalize in purchasing the energy necessary for heating and joint sales of the electric power to the local power plant.
- v. Reduced overall assets costs: Whenever the project financing contributes to solving overheads problems important in solving a concrete problem, the project will be in a position to raise funds at a cost lower than that gained by the sponsors. The project organization can obtain a higher level of indebtedness in comparison to the funds invested than the sponsors would be able to realize and maintain themselves, as the future project capital costs will benefit from trading debts at lower costs, in exchange for equity capital.
- vi. Structured Risk Mitigation: the increased returns compensate the firm for bearing a substantial risk. This approach can at times convert a potential sound investment into a negative NPV investment, resulting in the firm deciding against investing. The structural approach of project finance provides a better platform for overcoming such issues. The most important remaining risk associated with any investment, after risk sharing, is the sovereign or political risk - the risk resulting because of either direct expropriation in the form of asset seizure or creeping expropriation in the form of increased government payments resulting in decreased cash flows to capital providers. The structural approach, in contrast with the increasing hurdle rate, uses the concept of paradox of infrastructure investment and reduces the risk through careful structuring. The use of debt structuring and choosing carefully selected lenders can reduce the sovereign risk, e.g. by incorporating IFC or any other Multi-Lateral Agencies (MLAs), which lend only to projects rather than corporations, if the lenders can

persuade the governments not to opt for expropriation because future lending to the host nation may become a difficult task if any project financed with the funds made available by these MLAs is expropriated. Also, the presence of high leverage in project finance makes it more costly for the host government to expropriate and thereby reduces the overall risk.

### Disadvantages of Project Finance

Project finance has many advantages but, as no coin has only one side, there are certain disadvantages associated with project finance also. These disadvantages force the companies not to go in for project finance but have recourse to traditional finance. The main disadvantages are:

- i. Huge Third-Party Costs: The project finance structures are very complex which result in huge third-party up-front investments or dead-weight costs in various legal processes, which are required for designing and preparing the project ownership structure, loan documentation, and other contractual requirements. The financial advisors, selected to help structure the financing, normally charge advisory fees to the order of 50 to 100 basis points. These costs are incurred at the project development stage because of which these are not recoverable if the project fails to take off. Also, at times, the feasibility studies may be conducted only to satisfy the other related parties which can increase the development costs.
- ii. Time-Consuming Process: Structuring a project-finance deal, involving many parties, takes considerable time as compared to structuring a corporate-finance or a traditional finance deal. Whereas in traditional finance, the deal is finalized only by the internal team involving only a handful of people, in case of project-finance, the process of structuring the deal is unduly delayed because of the involvement of independent players each one trying to safeguard his/her personal interest. This incremental delay not only affects the project's viability measures like NPV, IRR, etc., but it may also result in missed opportunities.
- iii. Complexity Project financing is founded upon a set of contracts that require the negotiations with all the participants engaged in the project. The negotiations themselves may be rather complex and hence expensive to conduct. An important feature of negotiations in the analysis of project financing is the time necessary to negotiate, and it is by a rule by far longer than with the traditional direct financing.
- iv. Higher transaction costs Due to its high complexity, project financing requires higher transaction costs compared to those incurred in direct financing. The higher transaction costs reflect the contracting costs that are part of the project financial structure designing. They result from the analysis and introduction of

different taxes characteristic of the project, as well as from numerous legal issues, such as the documentation dealing with the stock issue and a consequent ownership of the project, the documentation related to borrowings, etc.

**VI. CONSTRAINS IN TERMS OF FINDING ADEQUATE RESOURCES FOR FINANCING INFRASTRUCTURE PROJECTS**

Project Structuring is very essential to plan a successful and viable project. Often projects fail to take off due to faulty structuring and lack of adequate financial planning regarding the modes of financing for the project. Project financing implies the financing of long-term infrastructure, industrial projects and public services based on either a non-recourse or limited recourse financial structure. The debt and equity used to finance the project are paid back from the cash flow generated by the project. Traditionally, most of the projects have been financed through budgetary provisions and generating revenue from projects has not been a focus area. But over the years, the State has been severely constrained in terms of finding adequate resources for financing infrastructure projects from budgetary sources.

Capital expenditure in the State has been very low which is reflected in the poor quality of infrastructure in the State. Compared to other States where the capital expenditure is around 5 to 7 per cent, in Kerala it hovers around less than 2 per cent. (Table 1)

**Table 1 CAPEX/GSDP ratios for 2013-14**

Sl.No	State	CAPEX/GSDP (in per cent)
1.	Uttar Pradesh	7.05
2.	Andhra Pradesh	5.74
3.	Rajasthan	5.58
4.	Karnataka	5.39
5.	Odisha	5.23
6.	Gujarat	4.91
L.	Madhya Pradesh	4.53
8.	Tamilnadu	3.57
9.	Maharashtra	2.23
10.	Haryana	1.98
11.	West Bengal	1.85
12.	Kerala	1.79
13.	Punjab	1.27

Source: White Paper on State Finances, June 2016

Capital expenditure in the Kerala State as a percentage of GSDP has been less than two per cent.

Capital spending by the State as a proportion of State income is one of the lowest among the states. For many other States the proportion is over five times of Kerala. Capital expenditure as a per cent of GSDP from 2007-08 is shown in Table 2

**Table 2 Capital expenditure as a percentage of GSDP from 2007-08 to 2016-17**

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	RE	RBS
0.89	0.89	1.26	1.49	1.58	1.64	1.24	0.96	1.22	1.56

Source: Budget Documents, Finance Department, Government of Kerala

Further, there is a widening gap between the trends in the State vis-à-vis all states capital outlay affecting adversely the GSDP growth of the State and in turn affecting infrastructure development.

It is to be noted that around 40-50 per cent of the grants to local self-governments is spent on capital works, even though it is booked under revenue expenditure in State accounts. Even if this is accounted for, the infrastructure deficit in the state is very high. Table 3 points out to the huge deficit in capital expenditure that the State has had year after year.

**Table 3 Capital expenditure in the State from 2001 to 2016**

Period	Year	CAPEX (Rs.cr)	Growth Rate ( in per cent)	Average GR ( per cent)
2001-06	2001-02	558.36	-3.26	7.97
	2002-03	698.66	25.13	
	2003-04	639.71	-8.44	
	2004-05	681.75	6.57	
	2005-06	816.95	19.83	
2006-11	2006-07	902.58	10.48	34.73
	2007-08	1474.58	63.37	
	2008-09	1695.60	14.99	
	2009-10	2059.39	21.45	
	2010-11	3363.69	63.33	
2011-16	2011-12	3852.92	14.54	18.31
	2012-13	4603.29	19.48	
	2013-14	4294.33	-6.71	
	2014-15	4254.59	-0.93	
	2015-16	7027.34	65.17	

Source: White Paper on State Finances, June 2016

Even if the state tries to target a rate at the average of the CAPSX/GSDP ratios of the neighboring states, Kerala would have to invest about 4 per cent of its GSDP in capital works which amounts to a CAPSX outlay of Rs 24, 000 crore in 2016 itself. As there are budgetary constraints, there will be a limit to the quantum of capital expenditure that can be made from the budget. Mobilizing off budgetary resources through the various financial and infrastructure institutions in the State is required for taking up and completing the major infrastructure projects.

Bridging the infrastructure deficit and finding innovative means of financing is one of the foremost critical priorities of the Government.

## VII. GOVERNMENT INITIATIVES FOR INFRASTRUCTURE PROJECTS

### a. Kerala Infrastructure Investment Fund Board

Revamping of Kerala Infrastructure Investment Fund board (KIIFB) is a major step taken by the Government in facilitating investment for infrastructure projects. KIIFB was constituted under Finance Department of Kerala for raising funds both in the medium and long term to finance critical and large infrastructure projects in the state. It came into existence on 11.11.1999 under the Kerala

Infrastructure Investment Fund Act 1999 (Act 4 of 2000) to manage the Kerala Infrastructure Investment Fund. The main intention of the Fund was to provide investment for critical and large infrastructure projects in the State of Kerala. The Board had mobilized funds to the tune of Rs 1023.71 crore through issue of three series of Redeemable and Non-convertible Non statutory Lending Rate (Non SLR) bonds by private placement fully backed by State Government Guarantee.

The Fund was established with the main objective of providing investment for projects in the State of Kerala in sectors like Transport, Water Sanitation, Energy, Social & Commercial Infrastructure, IT and Telecommunication etc. KIIFB will assist the Government and its agencies in the various aspects pertaining to Infrastructure Development and will act as the nodal agency for scrutinizing, approving and funding major infrastructure projects including PPP projects. With the restructured and rejuvenated KIIFB the future looks bright for the development of key infrastructure in Kerala.

KIIFB has been reconstituted by Government, through an amendment Ordinance in August 2016, as a Body Corporate having perpetual succession consisting of the Chief Minister as Chairman and Minister for Finance as

Vice- Chairman. The Members of the Board include Chief Secretary to Government, Vice-Chairman State Planning Board, Secretary (Law), Secretary (Finance), Secretary (Finance Resources) and seven independent members who are experts, who have worked in an institution of national repute in one or more of the areas of Finance, Banking, and Economics. Additional Chief Secretary (Finance) is the CSO and Member Secretary of the Board.

It is envisaged to execute the major infrastructure projects planned under the anti –recession package announced in the budget and to raise funds to the tune of Rs50,000 crore outside the budget for taking up infrastructure projects. KIIFB is expected to leverage the financial resources for infrastructure development. 10 per cent of the motor vehicle tax and 1 per cent of the petrol cess will go to KIIFB. Also the Fund Trustee and Advisory Commission will ensure that all investment of the fund serves the purpose and intent of the legislation and that there is no diversion of funds of the Board.

KIIFB will assist the Government and its agencies in the various aspects pertaining to infrastructure development and will act as the nodal agency for scrutinizing, approving and funding major infrastructure projects including PPP projects, with the main objective of providing investment for projects in the State of Kerala in sectors like Transport, Water Sanitation, Energy, Social and Commercial Infrastructure, and IT and Telecommunication. Detailed guidelines for availing financial resources from KIIFB have been issued by the Government.

KIIFB has approved a plan to issue General Obligation Bonds against unconditional Government guarantee and Revenue Bonds with structured payment mechanism for medium term requirement and has initiated steps to raise funds to meet long term requirements through Alternative Investment Funds (AIF), Infrastructure Investment Trust (InvIT), Infrastructure Debt Fund (IDF) and build the institutional framework needed for this. It also decided to set up an Infrastructure Fund Management Corporation (IFMC) to mobilize resources through advanced financial instruments approved by the Securities and Exchange Board of India (SEBI) and the Reserve Bank of India (RBI). In the first board meeting held on November 7, 2016, 48 projects costing Rs 4,004.86 crore have been approved.

#### **b. Project Financing Cell, Kerala State Planning Board**

In order to address the resource constraint in the infrastructure sector, the Project Financing Cell (PFC) was constituted in the State Planning Board in 2012 to help in structuring the projects for attracting financial resources from private sector. The objective of PFC includes examining the possibility of extra budgetary resources, including Public Private Partnership for all projects of the State. PFC is also mandated to examine the technical as

well as financial feasibility of all projects above an outlay of Rs5 crore. Since its inception, PFC has been appraising project proposals and providing the structuring framework for investment mobilization from extra budgetary resources. PFC also provides information to Government regarding the new policy announcements and schemes to enable the departments to avail the assistance offered under various Central Government programmes and policies.

#### **Development of Model Projects**

Project Financing Cell has been undertaking development of model projects which can be taken up on PPP mode and replicated in various parts of the State. PFC has undertaken two feasibility studies through M/s INKSL Ltd during 2016 -17- Development of Model Ladies Short Stay hostel through PPP mode and Development of Multilevel Car Parking Facility in PPP mode in Thiruvananthapuram Medical College.

Development of Model Ladies Short Stay hostel envisages creation of safe and secure stay facility for ladies for short period with all modern facilities such as pick and drop, gym and Wi-Fi. The feasibility report explores the possibility of setting up Ladies Short Stay hostel in the six municipal corporations of the State focusing on Thrissur Municipal Corporation. It suggests two modes of the implementation (i) Land plus Annuity or (ii) Land plus Viability Gap Funding (VGF) model. Development of Multilevel Car Parking Facility in PPP mode in Thiruvananthapuram Medical College examines the possibility of setting up parking facility in the premises of Medical College. The feasibility report suggests two locations in the campus for setting up parking facilities on BOT (Build, Operate and Transfer) Model.

#### **c. Public Private Partnership Projects**

Development of roads, ports and urban infrastructure projects are now increasingly being taken up on Public Private Partnership (PPP) mode. Some of the important PPP projects in the State include the Thiruvananthapuram City Road Improvement project on PPP (Annuity) mode, Vizhinjam project on DBFOT mode and Kariavattom Green Field Stadium on DBOT mode. However, the number of PPP projects in the State compared to other States is very less and concerted efforts are required to attract private investment to the State.

### **VIII. FINDINGS**

- The main financing mechanisms for infrastructure projects are Government Funding, Corporate or On-Balance Sheet Finance and Project Finance
- Capital expenditure in the State has been very low which is reflected in the poor quality of infrastructure in the State .Compared to other States where the capital

expenditure is around 5 to 7 per cent, in Kerala it hovers around less than 2 per cent.

- Capital expenditure in the Kerala State as a percentage of GSDP has been less than two per cent.
- Around 40-50 per cent of the grants to local self-governments is spent on capital works, even though it is booked under revenue expenditure in State accounts. Even if this is accounted for, the infrastructure deficit in the state is very high.
- Kerala would have to invest about 4 per cent of its GSDP in capital works which amounts to a CAPSX outlay of Rs 24, 000 crore in 2016 itself.

## IX. CONCLUSION

A well developed and quality infrastructure is a precondition for the development of any country. While, there are several dimensions to the issue of private participation in infrastructure projects, the financing of such projects requires special attention. A number of financing mechanisms are available for infrastructure projects such as Government Funding, Corporate or On-Balance Sheet Finance and Project Finance. Capital expenditure in the State has been very low which is reflected in the poor quality of infrastructure in the State and the infrastructure deficit in the state is very high. Capital expenditure in the State has been very low which is reflected in the poor quality of infrastructure in the State. Kerala would have to invest about 4 per cent of its GSDP in capital works which amounts to a CAPSX outlay of Rs 24, 000 crore in 2016 itself. The Government initiatives for infrastructure projects are Kerala infrastructure investment fund board, Project Financing Cell, Kerala State Planning Board and Public Private Partnership Projects.

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