

Public Investment in Transport: Assessing Kerala's Road Infrastructure Expenditure

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Abstract

Road transport is vital for economic and social development of economies. It offers mobility for goods and passengers, connecting urban and remote areas, and providing door-to-door service. It serves as a crucial feeder for other transport modes, supports employment generation, facilitates trade by providing market. Transport broadens the market, fosters greater factor utilization and facilitates labour movement towards better and more gainful employment. It breaks geographical barriers and opens up new potentialities of production. The development of an efficient transport system is inevitable for the development of an economy. In this context this paper examines the transport expenditure in Kerala.

Key words

Road transport, transport sector, infrastructure, local bodies.

Introduction

Road transport is the most simple and economic mode of transport. It is the movement of individuals and commodities from one place to another place by way of different roadways as quickly as possible with a nominal charges or cost. Present Indian roadways facilitate to reach the concerned destination within the guessed time. Roadways are laid by the use of advanced construction technology viewing all the seasons and weather conditions. There is a separate expert specialized Engineering Branch called Transportation Engineering for maintenance of roadways by an advanced construction technology. Central and State Governments is giving education on transportation concrete technology for making a good road.

The government also supports research and training through specialized centers. The Central Road Research Institute (CRRI) serves as the national apex body for road infrastructure. Indian Institute of Technology (IIT) Guwahati has organized short-term courses and training programmes on road safety and traffic management, often in collaboration with the Ministry of Road Transport and Highways (MoRTH) and the Indian Roads Congress (IRC), contributing to the development of skilled professionals in transportation engineering.

Road transport is vital to Kerala's economy, acting as the primary mode for passenger and freight movement, offering door-to-door service, and providing connectivity to remote areas, schools, and hospitals. It supports social integration by linking communities and provides essential "last-mile" connectivity for air, rail, and port transport. While Kerala boasts a dense road network, there's a significant mismatch between vehicular growth and road capacity, requiring urgent improvements in road quality and safety to reduce congestion, accidents, and enhance economic development.

Significance

Transport expenditure is significant for economic development, social progress, and public welfare, as investment in infrastructure and safety measures directly reduces accidents, improves quality of life, and supports the efficient movement of goods and people. Allocating funds for road upgrades and public transport enhances safety and accessibility, striving for the UN's target of a 50% reduction in road accident fatalities and injuries by 2030 through a holistic approach including accident abatement, driver education, and enforcement.

The study on transport expenditure in Kerala is significant as it highlights the critical role of road infrastructure in driving economic and social development. By analyzing spending patterns, the study reveals prioritization of road networks, which form the backbone of mobility. It also emphasizes the importance of fund utilization and maintenance across local bodies.

Objectives

1. To examine the expenditure for road transport in Kerala
2. To understand the types of roads maintained by local bodies in Kerala

Methodology

The study made use of secondary data. This paper examines Kerala government's expenditure trends in the transport sector from 2019-20 to 2023-24, analyzing data from official sources including Kerala State Planning Board reports. Focus is also given to types of roads maintained by local bodies in Kerala.

Analysis and observations

Kerala's transport sector comprises roads, rail, air, and inland water transport, with a heavy reliance on roads for passenger and freight movement. The government's expenditure on developing and maintaining this infrastructure is central to the state's economic and social progress.

The local bodies are responsible for rural roads, while municipalities and corporations manage urban roads. The total road network in Kerala was approximately 2.36 lakh km as of 2024, with 1.96 lakh km falling under the jurisdiction of various local bodies.

Table 1: Kerala Government Transport Sector Allocations and Expenditure (₹ crore)

Year	Budget Outlay	Actual Expenditure	
2019-20	7,803	7,121	
2020-21	8,092	7,215	
2021-22	8,740	8,079	
2022-23	8,954	8,307	
2023-24*	9,210	8,860 (Est.)	

Sources: Kerala State Planning Board Economic Review 2024[1], Fourteenth Five-Year Plan Transport Working Group. *2023-24: projected/quick estimates

Table 1 shows Kerala government's transport sector budget outlay and actual expenditure from 2019–20 to 2023–24 (in ₹ crore). Budget outlay rose steadily from ₹7,803 (2019–20) to ₹9,210 (2023–24), indicating increased financial commitment. Actual expenditure also increased from ₹7,121 to ₹8,860 (estimated), reflecting improved spending capacity. Each year, actual spending was below the budget, but the gap narrowed over time—especially in 2023–24, where utilization was over 96%. The trend suggests growing investment in transport infrastructure and better budget execution in recent years. COVID 19 pandemic lowers utilisation in 2020-21 and 2022-23 was the post pandemic recovery year.

Table 2: Sub-Sectoral Distribution of Transport Spending (2022-23)

Sub-sector	Expenditure (₹ crore)	Share (%)
Roads and Bridges	6,710	80.8
Public Transport (KSRTC)	940	11.3
Inland Water Transport	191	2.3
Urban Transport/Metro	298	3.6
Airports/Air Transport	168	2.0
Railways	59	0.7
Total	8,307	100

Source: Kerala State Planning Board, Transport Working Group Report

Table 2 presents the sub-sectoral distribution of transport expenditure in Kerala for 2022–23, with total spending amounting to ₹8,307 crore. Roads and Bridges dominated spending at ₹6,710 crore, accounting for 80.8% of the total, indicating it as the primary focus area. Public Transport (Kerala State Road Transport Corporation, KSRTC) received the second-highest allocation at ₹940 crore (11.3%), highlighting investment

in state-run bus services. Urban Transport/Metro (e.g., Kochi Metro) received ₹298 crore (3.6%), reflecting ongoing urban mobility development. Inland Water Transport (e.g., backwaters, ferries) had ₹191 crore (2.3%), showing continued support for alternative transport. Airports/Air Transport received ₹168 crore (2.0%), indicating limited but strategic investment in air connectivity. Railways had the smallest share at ₹59 crore (0.7%), suggesting minimal state-level spending on rail infrastructure.

The data reveals a strong prioritization of road infrastructure, with over four-fifths of funds allocated to roads and bridges, while other modes received proportionally smaller shares.

The total length of roads maintained by various local bodies during 2023–24 was 1,52,422 km. Of this, 1,28,048 km (84%) were maintained by District and Grama Panchayats, 16,560 km (10.9%) by Municipalities, and 7,813 km (5.1%) by Corporations. This data is based on the GIS-based road asset mapping conducted by the Kerala Remote Sensing and Environment Centre (KRSEC) and presented in Table 3.

Table 3 Roads maintained by different local bodies (in Km)

Local body	Black topped	Concrete	Earthen	Total
Corporation	5082	2172	559	7813
Municipality	10142	3815	2602	16560
Dist panchayath	129	6	5	140
Grama panchayath	65372	28927	33609	127908
Total	80726	34920	36775	152422

Source: Local self-Government Department Data

http://kerenvis.nic.in/Database/INFRASTRUCTURE_1419.aspx

Grama Panchayaths maintain the largest road network, 127,908 km, including 65,372 km of black topped and 33,609 km of earthen roads. Municipalities manage 16,560 km, with 10,142 km black topped—the second-highest in that category. Corporations maintain 7,813 km, including 2,172 km of concrete roads, the second-highest concrete share. District Panchayaths handle only 140 km, the smallest share across all categories. Overall, black topped roads (80,726 km) dominate, followed by earthen (36,775 km) and concrete (34,920 km). Total road length across all local bodies is 152,422 km, with Grama Panchayaths maintaining over 80% of the total.

Challenges of Road infrastructure

As per Economic Review of State Planning Board, majority of the roads in Kerala do not have adequate width so as to cater to the existing level of traffic and only one fourth of the roads have either two lanes or four lane capacity while most of the roads have single lane or intermediate lane capacity. In the case of National

Highways, only about 12 per cent of the roads have four lane capacities while the remaining roads have only two lane or intermediate lane capacity. Bulk of the inter-city and interstate traffic are carried out by the National Highways and State Highways which are only eight per cent of the total network. Because of the demand supply gap, there is a huge need for up gradation of existing road network.

Conclusion

The analysis of Kerala's transport sector reveals a consistent increase in budget allocation and improved expenditure utilization over the years, reflecting stronger implementation capacity. Despite challenges in full budget utilization in earlier years, recent data shows a narrowing gap, suggesting better planning and execution. Transport investment continues to play a pivotal role in supporting economic activity, mobility, and regional development across Kerala.

While Kerala's transport spending has trended upward over the last five years, the paramount road sector challenge remains the construction of all-weather roads to connect every village. Ensuring high-quality standards is crucial for a road's durability and lifespan. By implementing rigorous quality control measures, conducting regular inspections, and emphasizing preventive maintenance, the state can effectively extend road life, reduce future repair expenses, and significantly enhance user safety. Nevertheless, the road construction industry in Kerala currently contends with several hindrances to infrastructure progress.

To overcome the challenges, it is essential to tackle land acquisition difficulties, investigate creative financing alternatives, adopt technological advancements, emphasize sustainability, and strengthen quality control and maintenance practices. Implementing these strategies will facilitate the development of efficient, resilient, and sustainable road infrastructure, thereby foster economic growth and enhance connectivity across the State. An action plan should be made for prioritising the road works in the State. Major emphasis should be given to widening the State Highways and Major District Roads along with professional design and adequate drainage facilities. The new road development initiatives like the National Highway widening, highways, coastal highways and bypasses need to be completed without delay.

Reference

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