CHAPTER - III

DEVELOPMENT OF ROAD TRANSPORT IN INDIA
AND KERALA

3.1. Introduction

Transport in the Republic of India is an important part of the nation's economy. Since the economic liberalisation of the 1990s, development of infrastructure within the country has progressed at a rapid pace, and this has resulted in a wide variety of modes of transport by land, water and air. However, India's relatively low GDP per capita has meant that access to these modes of transport has not been uniform. According to 2009 estimates by Goldman Sachs, India will need to invest US$1.7 trillion on infrastructure projects before 2020 to meet its economic needs, a part of which would be in upgrading India's road network.¹ The Government of India is attempting to

¹ Shobana Chandra. "U.S. Pension Funds May Invest in India Road Projects, Nath Says". Bloomberg.
promote foreign investment in road projects. Foreign participation in Indian road network construction has attracted 45 international contractors and 40 design/engineering consultants, with Malaysia, South Korea, United Kingdom and United States being the largest players.

### 3.2 Road Transport in India

A good road network is a critical infrastructure requirement for rapid growth. It provides connectivity to remote areas; provides accessibility to markets, schools, and hospitals; and opens up backward regions to trade and investment. Roads also play an important role in inter-modal transport development, establishing links with airports, railway stations, and ports.

India has one of the largest road networks in the world, of 33.14 lakh km, consisting of (i) National Highways (NHs), (ii) State Highways (SHs), (iii) Major District roads (MDRs), and (iv) Rural Roads (RRs) that include other district roads and village roads. NHs with a length of 66590 km comprises only 2.0 percent of the road network but carry 40 percent of the road-based traffic. SHs with a length of about 137000 km and MDRs with a length of 300000 km together constitute the secondary system of road transportation which contributes significantly to the development of the rural economy and industrial growth of the country. The secondary system also carries about 40 percent of the total road traffic, although it constitutes about 13 percent of the road network.

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3. Indian Highways - Emerging Opportunities, Govt. of India, Page 15
total road length. RRs, once adequately developed and maintained, hold the potential to provide rural connectivity vital for generating higher agricultural incomes and productive employment opportunities besides promoting access to economic and social services. The status of NH as on 31st march 2012 is follows:

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Roads/Ways (1)</th>
<th>Length (Km.) (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Expressways</td>
<td>200</td>
</tr>
<tr>
<td>2</td>
<td>National Highways</td>
<td>66,590</td>
</tr>
<tr>
<td>3</td>
<td>State Highways</td>
<td>1,31,899</td>
</tr>
<tr>
<td>4</td>
<td>Major District Roads</td>
<td>4,67,763</td>
</tr>
<tr>
<td>5</td>
<td>Rural and Other Roads</td>
<td>26,50,000</td>
</tr>
<tr>
<td>6</td>
<td>Single Lane/Intermediate Lane</td>
<td>32percent</td>
</tr>
<tr>
<td>7</td>
<td>Double Lane</td>
<td>56percent</td>
</tr>
<tr>
<td>8</td>
<td>Four or more Lanes</td>
<td>12percent</td>
</tr>
</tbody>
</table>

Source: National Highways Authority of India

The transport demand for freight and passenger movement within the country is met mainly through road transport and railways. Between these two modes road transport has steadily expanded its scope of operation and is now not merely a mode for the last hauls but is also handles freight over long distances. It also plays a complementary role to railways in moving freight from and to railheads vis-à-vis the Origin-Destination movements of cargo. Its intermodal share in carrying freight, which was around 14percent in 1950–51, had increased to around 61 percent in 2004–05. The share of road transport in passenger movement has also witnessed a quantum jump from 15 percent in 1950–51 to an estimated 87 percent of the total traffic by the end if the Tenth Plan.
Taking into account the changes in the road transport technology, pattern of passenger and freight movements, development of the road network in the country and particularly improved technology in the motor vehicle management, the Motor Vehicle Act 1939 was consolidated and amended by parliament, which is now called the Central Motor Vehicles Act 1988. The said act empowers the Central Government to frame rules under provisions of the Act. Road Transport in India is primarily the responsibility of the State Government and U.T. Administrations. The State Govt. and Union Territory Administrations regulate road transport under the provisions of the relevant Motor Vehicle Act/rules in the respective states. Data collected from different source agencies is compiled and published by the Transport Research Wing of Ministry of Road Transport and High Ways.

### 3.3 Motor Vehicles Act, 1939 and Growth of Passenger Transport

On the basis of recommendations of the early Wedge Wood Committee Report in 1937, a comprehensive Motor Vehicle Act, 1939 was formulated to ensure the growth of road transport on the basis of healthy competition within the industry itself and with the Railways.

Corporate bodies and a few individuals were able to offer reliable, punctual and economical services in their area of operation. In the context of political awareness, Government issued guidelines to Transport Authorities to grant permits to new entrants and small operators. This has been vehemently resisted by the existing operators having recourse to the provisions of the
Motor Vehicles Act, 1939. In the result it was found that the Act was restrictive in nature impeding growth of bus services and its expansion was not equal with the measure of demand for the service, hence the nationalisation of the bus transport services was required.

3.4 Nationalization

As the existing services were found inadequate and few of them ill organized, Government considered nationalization of bus transport services as a means to ensure efficient, economical, adequate and properly co-ordinated services. With these objectives in view, the Road Transport Corporation Act was passed in 1950.

In a number of major States of the Indian Union most of the stage carriage operations was in the public sector. With the growing requirement of Passenger Road Transport Services and the inability of the State owned Corporation to fulfil the need adequately, satisfactorily and economically, even after the lapse of 25 years since inception, a reassessment as to whether the policy of nationalization will meet the needs of the people, was necessitated.

3.5 Public Road Transport System

Public Road Transport system for the movement of passengers over short and medium distance is essentially based on bus services. It is a basic infrastructure and a public utility service that meets the travel needs of the general public connected with work, education, social purposes and
entertainment purposes. Now buses even compete with the Railways in some long distance routes with convenient and comfortable services throughout day and night. Passenger road transport sector is dominated by publicly owned State Road Transport Corporations or Undertakings in some states like Andhra Pradesh, Maharashtra, Tamil Nadu, Karnataka, Gujarat, Uttar Pradesh and so on while in some other states like Kerala it is dominant only in certain areas of the state. About 80 per cent of the land passenger transport needs in India is met by the bus transport system (Kulkarni, 2000). These transport undertakings as public enterprises are conceived and organized to function as commercial enterprises engaged in economic activity involving huge outlays of public investment. Social and economic objectives of providing efficient and economical transportation facilities to the masses have been the prime consideration for bringing the passenger road transportation system under the umbrella of the state which was sought to be achieved by the Road Transport Corporation Act of 1950 of Indian Parliament which paved the way for the nationalisation of the passenger road transport to a large extent leading to the formation of State Road Transport Undertakings or Corporations in almost all States in India. In this context the present study is a case study of bus-based public passenger transport system in Kerala.

At present, India has a huge network of roads comprising of National Highways. India has a large and extensive transportation system. The country has one of the world's largest railway and roadway networks, transporting millions of people every year. However, vast sections of the country's
transportation network remain underdeveloped. India has a huge network of roads comprising of National Highways, State Highways, Major District Roads and Village and other roads. In fact, it is the third largest road network in the world covering a total length of 33, 00,000 km\(^4\).

In India, where only 250,000 cars were sold in 1996, the vast majority of the urban population depend on public transport. Buses account for a majority of all passenger trips, and trains for a quarter. Taxis and rickshaws take a fifth of all passengers, providing employment and relieving the severely overcrowded buses and trains.

### 3.6 History and Development of State Road Transport Corporations in India

The scheme of nationalization of passenger transport services was started as early as in 1932 by the then Nizam government in Hyderabad. The Marathwada State Transport, with headquarters at Aurangabad, came into existence as a result of the trifurcation of the erstwhile Hyderabad State, which was one of the pioneers in the field of public road transport, first in collaboration with the railways and then as a separate government department. After the reorganization of States in November 1956, the operations in Marathwada were looked after by a separate department under the erstwhile Government of Bombay, called the “Transferred Road Transport Undertakings Department”. With effect from 1\(^{st}\) July 1961, the T. R. T. U. Department was

4. [http://maps-india.com/overview/roadnetwork.htm](http://maps-india.com/overview/roadnetwork.htm)
abolished and the Marathwada State Transport, along with the State Transport Services in the Vidarbha region, was amalgamated with the Bombay State Road Transport Corporation and the reorganized corporation was named as Maharashtra State Road Transport Corporation.

Passenger transport services were regulated by the District level police authorities, prior to the coming into force of the Motor Vehicles Act, 1939, by issue of permits, known as free permits, enabling bus operators to ply their vehicles in different directions in the District in a day wherever passenger roads were available.

This led to severe competition among owners leading to unruly scenes and untoward incidents. With the passing of the Motor Vehicles Act, 1939, passenger transport was sought to be controlled and regulated by various provisions of the Act and the rules made thereunder. Routes and areas were identified. Permits were granted by the Regional Transport Authorities, imposing many conditions, the breach of which will entail penalties and even cancellation of permit. During this period of 1952, the Fuel (Petrol) was in short supply and to be rationed. To obviate the difficulty, gas plant was invented by indigenous expertise - by M/s Simpson and Co. and T.V. Sundaram Iyengar and Sons. It was used as motive power.

With the ushering in of diesel engines in India, in the early 50's passenger transport scene acquired a new dimension, with heavy vehicles of
larger capacity coupled with permitted higher level of speed crisis crossing the Country.

Thus buses became an important means of public transport in India, particularly in the countryside and remote areas where the rail network cannot be accessed and airline operations are few or non-existent. Due to this social significance, public bus transport was predominantly owned and operated by public agencies, and most state governments operate bus services through a State Road Transport Corporation. These corporations, introduced in the 1960s and 1970s, were extremely useful in connecting villages and towns across the country.

3.7 Road Transport Corporation Act, 1950

“The Road Transport Corporation Act, 1948(XXXII of 1948), was enacted with a view to enable the Provincial Governments, who may so desire, to establish Road Transport Corporation. This Act has been found defective because the provisions of sections 3(2), 4 and 5 of the Act, insofar as they require certain provisions to be made by a Provincial law, are ultra-virus of the Government of India Act1935, as adapted. Under the latter Act, the power to legislate in respect of trade and commerce is given to the Provincial Legislature and the power to legislate for the incorporation of trading corporations is given to the Central legislature.
The creation of statutory transport corporations has been held as amounting to incorporation of trading corporations and such, ultra virus of the Provincial Legislature. In order to remove this legal flaw, it is proposed to replace the existing Act, by “a comprehensive Act, enabling such of the Provincial Government, who may so desire, to set up Transport Corporation, with the object of providing efficient, adequate, economical and properly coordinated system to road transport services.”

The Road Transport Corporation Act, 1950 was enacted to enable State Governments to set up Transport Corporations with the object of providing efficient, adequate, economical and properly co-coordinated system of road transport services. In the light of the changed circumstances, the suggestions that have been received from the State Governments, different Ministries of the Central Government and other agencies concerned, it is proposed to make certain amendment in the said Act with a view primarily to secure the better functioning of the Road Transport Corporation under the Act.

### 3.8 Share of Public Transport in GDP

Road transport has emerged as the dominant segment in India’s transportation sector with a share of 5.4 percent in India’s GDP. Road transport demand is expected to grow by around 10 percent per annum in the backdrop of a targeted annual GDP growth of 9 percent during the Eleventh Five Year Plan. The road network can be broadly classified into five broad

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5. Gaz. Of India, 1949. Pt. V.P. 559
categories: (1) Expressway (2) National Highways (NHs) (3) State Highways (SHs) (4) Other Roads and (5) Rural Roads. National Highways comprise less than 2 per cent of the road network, but carry 40 percent of the road-based traffic. State Highways (SHs) and Major District Roads (MDRs) constitute the secondary system of road transportation in the country. The State Highways connect National Highways, district headquarters, important towns, tourist locations and minor ports. About 61 percent of the total road length in India is accounted for by rural roads. The decadal figures of the road network under all these categories are provided in the Table. As would be seen from the table, the aggregate length of roads, which was 0.4 million km in 1950-51, has increased more than 10 fold to 4.24 million km by 2009-10.

<table>
<thead>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Express ways</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>National Highways</td>
<td>19811 (5.0)</td>
<td>23798 (4.5)</td>
<td>23838 (2.6)</td>
<td>31671 (2.1)</td>
<td>33650 (1.4)</td>
<td>57737 (1.7)</td>
<td>65569 (1.8)</td>
<td>70934 (1.7)</td>
</tr>
<tr>
<td>3</td>
<td>State Highways</td>
<td>173723 (43.4)</td>
<td>257125 (49.0)</td>
<td>56765 (6.2)</td>
<td>94359 (6.4)</td>
<td>509435 (21.9)</td>
<td>736001 (21.8)</td>
<td>719257 (19.9)</td>
<td>863241 (20.4)</td>
</tr>
<tr>
<td>4</td>
<td>Other PWD Roads</td>
<td>276833 (30.3)</td>
<td>421895 (28.4)</td>
<td>1264154 (54.2)</td>
<td>1972016 (58.5)</td>
<td>2140569 (59.1)</td>
<td>2577396 (60.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Rural Roads</td>
<td>206408 (51.6)</td>
<td>197194 (37.6)</td>
<td>354530 (38.7)</td>
<td>628665 (42.3)</td>
<td>1264154 (54.2)</td>
<td>1972016 (58.5)</td>
<td>2140569 (59.1)</td>
<td>2577396 (60.8)</td>
</tr>
<tr>
<td>6</td>
<td>Urban Roads</td>
<td>46361 (8.8)</td>
<td>203013 (22.2)</td>
<td>308631 (20.8)</td>
<td>396536 (17.0)</td>
<td>475666 (14.1)</td>
<td>362935 (5.5)</td>
<td>574516 (13.6)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Total</td>
<td>399942</td>
<td>524478</td>
<td>914979</td>
<td>1485421</td>
<td>2331086</td>
<td>3373520</td>
<td>3621507</td>
<td>4236429</td>
</tr>
</tbody>
</table>

Note: Figures within parenthesis indicate per cent to total road length in each road category.

Source: National Highways Authority of India.

### 3.9 Public transport bus service

Public transport bus services are generally based on regular operation of transit buses along a route calling at agreed bus stops according to a
published public transport timetable. Many public bus services are run to a specific time table giving specific times of departure and arrival at waypoints along the route. These are often difficult to maintain in the event of traffic congestion, breakdowns, on/off bus incidents, road blockages or bad weather. Predictable effects such as morning and evening rush hour traffic are often accounted for in timetables using past experience of the effects, although this then prevents the opportunity for drafting a ‘clock face’ timetable where the time of a bus is predictable at any time through the day. Predictable short term increases in passenger numbers may be dealt with by providing “duplicate” buses, where two or more buses operate the same slot in the timetable. Unpredictable problems resulting in delays and gaps in the timetabled service may be dealt with by ‘turning’ a bus early before it reaches it terminus, so that it can fill a gap in the opposite direction, meaning any passengers on the turned bus need to disembark and continue on a following bus. Also, depending on the location of the bus depot, replacement buses may be dispatched from the depot to fill in other gaps, starting the timetable part way along the route.

3.10 Types of bus services

The names of different types of bus services vary according to local tradition or marketing, although services can be classified into basic types based on route length, frequency, purpose of use and type of bus used.
Urban or suburban services is the most common type of public transport bus service, and is used to transport large numbers of people in urban areas, or to and from the suburbs to population centres. These services are often organised on a network basis centred on an urban centre of a town, or across a city, and may involve universal liveries, or specific route branded buses. The predominant bus type used on these services is the transit bus, also referred to in this context as a commuter bus or city bus. Longer distance services may utilise dual purpose buses or even minimally appointed coaches. These services generally complement tram, rapid transit or urban rail systems, and will often be integrated with these modes in transport interchanges, as well as making heavy use of on street bus stops and bus stations. Night bus services are often implemented in urban areas, for operation generally after the last evening service, and before the first early morning service, to serve the night time economy. A night bus network will generally employ a more basic route network, and less frequent bus services. The busiest areas may not have a night bus network, in favour of 24-hour bus route, or 24 hour routes may operate as well as specific night bus services.

Express bus services are services that are intended to run faster than normal bus services, by either operating as a "limited stop" service missing out less busy stops, and/or travelling on faster roads such as freeways rather than slower moving local roads. These services can be complementary in length to normal city bus routes, and as such may use the same city buses but with a
different route number. They can also be longer interurban services (see interurban bus service).

**Park and ride bus services** are designed to provide an onward passenger journey from a parking lot. These may be branded as shuttle or express services, or part of the standard bus network.

**Feeder bus services** are designed to pick up passengers in a certain locality, and take them to a transfer point where they make an onward journey on a trunk service. This can be another bus, or a rail based service such as a tram, rapid transit or train. Feeder buses may act as part of a wider local network, or a regional coach network.

**Bus Rapid Transit (BRT)** is the application of a range of infrastructure and marketing measures to produce public transport bus services that approach the operating characteristics and capacity of rapid transit systems. India currently has twenty one operational BRT systems and many more planned or under construction.

### 3.10.1 Ownership

Public transport bus operation is differentiated from other bus operation by the fact the owner or driver of a bus is employed by or contracted to an organisation whose main public duty or commercial interest is to provide a public transport service for passengers to turn up and use, rather than
fulfilling private contracts between the bus operator and user. Public transport buses are operated as a common carrier under a contract of carriage between the passenger and the operator.

The owners of public transport buses may be the municipal authority or transit authority that operates them, or they may be owned by individuals or private companies who operate them on behalf of the authorities on a franchise or contract basis. Other buses may be run entirely as private concerns, either on an owner-driver basis, or as multi-national transport groups. Some countries have specifically deregulated their bus services, allowing private operators to provide public bus services. In this case, an authority may make up the shortfall in levels of private service provision by funding or operating ‘socially necessary’ services, such as early or late services, on the weekends, or less busy routes. Ownership/operation of public transport buses can also take the form of a charitable operation or not for profit social enterprises.

Larger operations may have fleets of thousands of vehicles. At its peak in the 1950s, the London Transport Executive owned a bus fleet of 8,000 buses, the largest in the world. Many small operators have only a few vehicles or a single bus owned by an owner driver. Andhra Pradesh State Road Transport Corporation holds the Guinness world record of having largest fleet of buses with 22,555 buses.
3.10.2 Scheduling

Services may be strictly regulated in terms of level of adherence to timetables, and how often timetables may be changed. Operators and authorities may employ on street bus inspectors to monitor adherence in real time. Service operators often have a control room, or in the case of large operations, route controllers, who can monitor the level of service on routes and can take remedial action if problems occur. This was made easier with the technological advances of two way radio contact with drivers, and vehicle tracking systems.

3.10.3 Regulation

In all cases in the developed world, public transport bus services are usually subject to some form of legal control in terms of vehicle safety standards and method of operation, and possibly the level of fares charged and routes operated. Increasingly bus services are being made accessible, often in response to regulations and recommendations laid out in disability discrimination laws. This has resulted in the introduction of flexible bus services, and the introduction of low-floor buses with features aimed at helping elderly, disabled or impaired passengers.

Motor vehicle penetration is low by international standards, with only 103 million cars on the nation's roads. In addition, only around 10 per cent of Indian households own a motorcycle. At the same time, the automobile
industry in India is rapidly growing with an annual production of over 4.6 million vehicles, and vehicle volume is expected to rise greatly in the future.

In the interim however, public transport still remains the primary mode of transport for most of the population, and India's public transport systems are among the most heavily used in the world. India's rail network is the 4th longest and the most heavily used system in the world, transporting 7651 million passengers and over 921 million tonnes of freight annually, as of 2011.

Despite on-going improvements in the sector, several aspects of the transport sector are still riddled with problems due to outdated infrastructure and lack of investment in less economically active parts of the country. The demand for transport infrastructure and services has been rising by around 10 per cent a year with the current infrastructure being unable to meet these growing demands.

Roadways in India have come a long way. Starting from the pug dandies (as mall path created naturally due to frequent walks) of earlier times to the present-day Rajpath of Delhi, the country has crossed many spheres of road travel. The thread that binds the nation together' is truly a deserving metaphor for a road network that is one of the largest in the world. Its grand system of national highways, state highways and the roads that run endlessly within cities are marvellous.
3.11 Transport development over the plans

In concurrence with the policy to encourage growth of Road Transport in the public sector various schemes were implemented in the five year plan. In brief the 1st five year Plans (1951-1956) proposed to bridge missing units on national highways and increase the fleet strength of the STUs. The second 5 year Plan (1950-1961) proposed to complete on going road works and nationalize passenger services in phases. The 3rd five year Plan (1961-1966) suggested the takeover of some bus routes. The Annual Plans (1966-1969) proposed to reduce disparities existing in the various states in respect of road development programs and initiate efforts to augment services in the existing routes of the STUs. The fourth and the fifth five year plans (1969-1974) - (1974-1979) envisaged development of rural roads, strengthening of services on the existing routes of the nationalized STUs and developing national highways with improvement in road standards. Higher priority was to be given to the growth of public Transport as opposed to privately owned Transport. The Annual Plans in this aimed towards the completion of spill-over schemes and undertaking major schemes to strengthen the workshop facilities of the STUs.

The 6th plan (1980-1985) proposed to evolve a rational pricing structure for the STUs so as to ensure profitability and an adequate condition to the national resources. The 7th (1985-1990) had an ambitious program of revitalizing the Road Transport. It aimed at replacement of obsolete assets,
maximum utilization of the existing capacity and specifically providing accessibility to villages. It also suggested the introduction of a cost-based price structure to improve the financial viability of the STUs.

An analysis of Private Services provided in different State shows that there is no uniform practice in regard to the management. The pattern of management varies from State to State. The activities of undertakings are managed in three forms viz. - public corporation, departmental undertakings and government companies.

3.12 State Road Transport Undertakings

The oldest Indian state transport undertaking is North Bengal State Transport Corporation founded by the Raj Durbar of Koch Bihar Kingdom regime on 1 April 1945 with three buses and three trucks. It is still vibrant and running, providing service to commuters of North Bengal region. Buses take up over 90 per cent of public transport in Indian cities, and serve as a cheap and convenient mode of transport for all classes of society. Services are mostly run by state government owned transport corporations. However, after the economic liberalisation, many state transport corporations have introduced various facilities like low-floor buses for the disabled and air-conditioned buses to attract private car owners to help decongest roads. Bengaluru was the first city in India to introduce Volvo B7RLE intra-city buses in India in January 2006. Bengaluru is the first Indian city to have an air-conditioned bus stop, located near Cubbon Park. It was built by Airtel. APSRTC has been acknowledged as the single corporation having the largest bus fleet in the
The city of Chennai houses one of Asia's largest bus terminus, the Chennai Mofussil Bus Terminus. In 2009, the Government of Karnataka and the Bangalore Metropolitan Transport Corporation flagged off a pro-poor bus service called the Atal Sarige. The service aims to provide low-cost connectivity to the economically backward sections of the society to the nearest major bus station.

New initiatives like Bus Rapid Transit (BRT) systems and air conditioned buses have been taken by the various state governments to improve the bus public transport systems in cities. The idea of a BRT concept in India - based on the successful system in Curitiba, Brazil was first introduced in the year 2000 in the form of a feasibility study for Bangalore carried out by Swedish consultants but was not implemented at the time. At present, however, the concept has caught on and Bus Rapid Transit systems already exist in Pune, Delhi, Ahmedabad, Mumbai and Jaipur with new ones coming up in Kolkata, Hyderabad, Lucknow and Bangalore. High Capacity buses are found in cities like Mumbai, Bengaluru, Nagpur and Chennai.

Passenger road transport services in India are operated partly by public sector and largely by private sector in the proportion of about 29 per cent and 71 per cent respectively. The extent of nationalisation of public passenger transport in different states also varies considerably with the highest being about 70 per cent in Maharashtra State. The public sector passenger road transport system in India is operated by 71 passenger Road Transport
Undertakings owning 1,13,370 buses with individual fleet strength ranging from 5 to 17000 buses among these organisations under single management. There are twenty bus transport undertakings having more than 1000 buses in their Fleet, as on 31-3-1997. The largest among these are ‘Maharashtra State Road Transport Corporation’ and ‘Andhra Pradesh State Transport Corporation’ with about 17000 buses each. The organizational form for public sector bus transport also varies from state to state; the most common being that of the ‘statutory corporation’ form under the provisions of the Road Transport Corporation Act, 1950. There are 21 such corporations, while 31 undertakings are formed under Indian Companies Act, 1956. Urban bus transport systems are being operated by 10 Local Municipal Councils and the remaining 9 undertakings as part of government departments.

Table 3.3
Classification of Passenger Road Transport Undertakings
(Mean values/annum during 1983-’84 to ’96-97)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of STU/RTC</th>
<th>Category</th>
<th>Pass-Km (output) produced (million/annum) (4)</th>
<th>Bus Km million (5)</th>
<th>Route Km (‘000) (6)</th>
<th>Ranking (output based) (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Andhra Pradesh</td>
<td>Large</td>
<td>52725</td>
<td>1310</td>
<td>735</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Maharashtra</td>
<td>Large</td>
<td>49430</td>
<td>1243</td>
<td>1040</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Karnataka</td>
<td>Medium</td>
<td>33047</td>
<td>809</td>
<td>670</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Gujarat</td>
<td>Medium</td>
<td>31444</td>
<td>788</td>
<td>879</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Uttar Pradesh</td>
<td>Medium</td>
<td>20641</td>
<td>567</td>
<td>456</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Kerala</td>
<td>Small</td>
<td>12999</td>
<td>284</td>
<td>181</td>
<td>6</td>
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<td>Rajasthan</td>
<td>Small</td>
<td>12668</td>
<td>323</td>
<td>355</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Madhya Pradesh</td>
<td>Small</td>
<td>7945</td>
<td>210</td>
<td>258</td>
<td>8</td>
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<tr>
<td>9</td>
<td>Punjab S T</td>
<td>Small</td>
<td>7853</td>
<td>199</td>
<td>166</td>
<td>9</td>
</tr>
</tbody>
</table>

(Source: Singh S.K. 2000)
Based on the passenger-kilometre produced, the STUs are classified as in the Table 3.3, which gives an idea of the operations and productivity of different transport undertakings and their ranking on the basis of output produced.

3.13 Passenger Road Transport in Kerala

In Kerala, during the interregnum between World War I and the great depressions, the State of Travancore made rapid strides in modern transport. The first motor vehicle was introduced in the year 1912 and became a more common mode of transport only after World War I. By 1921 there were 152 motor vehicles in Travancore. With a decade it multiplied to 1662. However, due to the adverse circumstances following the global depression, road and rail transport registered only a marginal increase. This was accompanied by a decline in the number of automobiles in use from 1667 in 1st August to 1279 by 1937, since in a number of routes there existed more buses than the actual required for the public.

Owing to the cut throat competition that prevailed among the private operations, there was unnecessary waste of capital and other resources. The State Transport Government was convinced that Transport was a fundamental need and should be run in a round basis. The Transport Reorganization Committee was constituted and it recommended that an expert should be appointed to work out a transport scheme. Accordingly, Mr. E.G. Salter, who was the Assistant Operating Superintendent of the London Passenger
Transport Board was appointed as the superintendent of Transport and a new Development namely the State Transport Development was organized for Public Road Transport Service in the estimated while Princely State Transport of Travancore in Kerala on 29.09.1937.

The routes first nationalized were Trivandrum Cape Comorian and Nagercoil - Kolachal covering a distance of 112 Kilometers. The Transport Development initially had only 39 buses which were operating between four main routes via.-Trivandrum, Nagarcoil, Kolachal and Cape Comorin. Consequent on the integration of Travancore and Cochin in 1949, the nationalized ferry service run by the erstwhile Cochin State Transport was also transferred to this Department on the 1st of December 1949 and the name of the Department was changed to Travancore Cochin State Transport Department and the Transport State was extended to Cochin also.

The Travancore - Cochin Government appointed A.E.L Collins to study the working of the State Transport in the state. According to the findings of the study, State Transports of Travancore and Cochin had a sound foundation but the margin earned by the Department was entirely different due to overcrowding. The study recommended standardization and enhancement of the fleet by restricting the purchase of vehicles to two maker, timely replacement of over aged fleet, switching to diesel engines, construction of tyre and building maintenance options. Thus, the report of Collins may be
regarded as the first authoritative study conducted by a Transport expert on the working of State Transport of State Transport system in Kerala.

‘Half a Chakram’ was the minimum fare in 1938. The first class tickets had cost 50 per cent more than the coordinating rate. During that period free travel was allowed for children up to 3 years and only half the fare was charged for children until age 14. There were no luggage tickets, but when the luggage weighed more than 28 pounds up to 56 pounds, a fee was assessed for 4 chakras. Passengers with luggage that weighed more than 56 pounds were assessed a fee of 6 chakras up to 112 pounds and above. As the Chakram had tripled the value of a 100 rupee currency note when compared with the present scenerio, the cost of travelling was comparatively higher during those days. A detailed study of the present fare structure of KSRTC has been discussed in the fourth chapter of this study.

With the formation of Kerala State in 01.09.1956, the department was rechristened Kerala State Road Transport Department. In the same year, a one man commission submitted a report on the financing of the Road Transport Department and stressed the need for setting up a statistical section in the Department which would help in decision making. Up to the end of 1964-65, the State Transport Department was carrying on the development activities of the nationalized Road Transport sector outside the ambit of the 5 year plans.
In 1965, the State Transport Department was converted into a autonomous corporation in view of the policy decision taken by the Government of India and Planning Commission that the contributions of the Government of India would be given only if the Transport undertaking was converted into an autonomous organization. Thus by this notification\textsuperscript{6} No: 5345/TC4/65/pw dated 10.03.1965, the Kerala State Road Transport Corporation was established with effect from 15.03.1965 on the lines embodied in Road Transport Corporation Act, 1950 in order to expedite the process of nationalization and receive that assistance from Government.

Thus, from the part of the view of organization, the financing of the corporation can be divided in 2 periods.

The capital required of the Kerala State Road Transport Corporation are met by

1. Contribution from the State Government.
2. Contribution from the Government represented by Southern Railways.
3. Internal Resources
4. Loans (debenture bonds)

The State Government and Railways contributed in the ratio 4:1 towards capital expenditure of Kerala State Road Transport Corporation till

\textsuperscript{6} G.O No: 4936 / TC4/65/pw dated 22-03-1965
the end of 1968-1969 and thereafter in the ratio 2:1. A notification was issued by the Government of Kerala under sub section (1) of section 34 of Road Transportation Act, 1950 transferring all the assets and liabilities of the State Transport Department to Kerala State Road Transport Corporation with effect from 01.04.1965.

1. As a departmental undertaking from September 1937 to April 1965, a period of 27 years.
2. As a Corporation since 1965.

At the time of the establishment of the Corporation, it had a capital contribution of ₹ 504.04 lakhs which increased to ₹ 5294.24 lakhs (₹ 3632 lakhs) contributed by the State Government and ₹ 1662 lakhs by the Central Governmental by 31st March 1982 is payable in capital contribution at 6.25 per cent per annum. In addition, the corporation owed loans to ₹ 2779 lakhs (State Government ₹ 1657 lakhs, LIC of India: ₹ 919 lakhs and others ₹ 203 lakhs) as on 31.03.1987.

The corporation’s capital assets constituted vehicles, buildings, land, plant and machinery, which increased may fold since the time of inception of the corporation. The relative share of capital expenditure on vehicles was 62.69 per cent in 1964-65 which increased to 80.26 per cent by 1986-87.
The period after the formation of the corporation has been one of growth and setback. At the time of its formation in 1965, the Corporation possessed 901 busses operating 661 schedules along 533 routes having a total route length of 17832 km. It carried 139.9 million passengers in 1964-65. After twenty two years the number of buses increased to 3019. With these buses, 3162 schedules are operated. The number of passengers who made use of the services of the Corporation increased almost five fold to 756.25 million. The net capital employed increased from ₹ 496.9 lakhs to ₹ 8087.24 lakhs within the twenty two years. The total number of employees of the corporation more than tripled increasing from 7698 in 1965-66 to 26972 in 1986-87. In the first two years the corporation was making a profit. During 1965-66 the profit earned was ₹ 40.55 lakh and it increased to ₹ 60.80 lakhs in 1966-67. It started making a loss from 1967-68 (net loss ₹ 4.09 lakhs). By 1986-87 the net loss was ₹ 1413.79 lakhs and the accumulated loss was ₹ 9621 lakhs. Therefore in the following chapters an attempt is made to maximize the performance of the Corporation over the financial performance of the Corporation over the period 1990-91 to 2011-12 and identify reasons for the heavy loss incurred, despite its impressive growth in physical terms.