CHAPTER-IV

HISTORY OF TRANSPORTATION AND ITS WORK FORCE

4.1 INTRODUCTION

4.2 DEFINITION OF TRANSPORT AND TRANSPORTATION

4.3 MODES OF TRANSPORTATION

4.4 EVOLUTION OF TRANSPORT

4.5 PUBLIC TRANSPORT

4.6 ETYMOLOGY OF BUS

4.7 PUBLIC ROAD TRANSPORT IN INDIA

4.8 URBAN ROAD TRANSPORT IN INDIA

4.9 GROWTH OF BMTC

4.10 ENTRY OF WOMEN CONDUCTORS TO BMTC

CONCLUSION
CHAPTER IV
HISTORY OF TRANSPORTATION AND IT’S WORK FORCE

4.1: Introduction:

Movement of things or people from one place to another is as old as human existence. However, the mode used in this movement has changed through ages. The journey of animal power to steam and fossil fuel power explains this phenomenon. Along this line, the mobility has a social dimension more than machines. Transport helps human beings in removing this unwarranted barrier of physical separation and “enables a given flow of resource to produce greater results” (Bonavia, 1954). It also promotes homogeneity among the people of a country, and this sense of oneness strengthens political unity.

“Transport the de facto barometer of economic, social and commercial progress has transformed the entire world into one organized unit. It carries ideas and inventions to the people, and has considerably contributed to the evolution of civilization” (Ogburn, 1946). The demand for transport may not be fundamental in human nature for essential commodities. “It is an indispensable part of culture, as the hallmark of civilization” (Ambaprasad, 1960). The socio-economic and commercial importance of the greatest magnitude now a day is attached to the development of transport. The transport industries which undertake nothing more than the mere movement of persons and things from one place to another, have contributed one of the most important activities of men in every stage of advanced civilization. It is instrumental in the spread of development of culture. Hence a society without an advanced transportation system remains primitive (Jagadish, 1998). The history of transport reveals that social life and movements have developed together.
Transport permeates the whole of civilized life like the arteries and veins in the human body. Its services take people to whichever place they want to go. It is instrumental in the spread of development and mixing of cultures. It is interesting to quote here the observation made by a famous author regarding the general significance of transport in the modern world, “The transport is one of the great fundamental institutions of mankind. Its history dates back to the dawn of recorded history and beyond. It develops with man’s advance; it retrogrades with the breakdown of a social order. People without transport would be a people without interaction with outside world and hence without the attributes of civilization. Man the transporter thus cannot be separated from man the builder of civilization.

4.2 Definition of transport and transportation:

Generally speaking transport means any device used to move an item from one location to another.

When people or goods are moved from one place to another it is known as transport.

A vehicle or system of vehicles such as buses, trains, etc. is the means getting from one place to another (2008, Cambridge Advanced Learners Dictionary, Cambridge University Press).

Transportation is defined as the movement of freight and passenger from one place to another. One of the many dictionary definitions for transportation is “a means of conveyance or travel from one place to another”. The important common element in any definition of transportation however is movement, changing physical location of freight or passenger.

Transportation is the movement of goods and persons from place to place and the various means by which such movement is accomplished. The growth of the ability—and need—to transport large quantities of goods or numbers of people over long distances at high speeds in comfort and safety has been an index of civilization and in particular of technological progress.
(http://www.britannica.com). With the invention of wheel after fire, life changed tremendously for mankind. She / he could move faster and farther as a result could see more, conquer more and also exploit more resources. To put things on wheels we have invented steam based automated engines followed by fossil fuel and new renewable energy resources. Nevertheless, to manage these transport systems a large system was evolved placing people in different positions to man the machines and system. In all these systems women had very little role that to a maximum of being commuters. A brief outline of different modes of transport and their development is described.

**4.3 Modes of transportation:**

There are three modes of transportation namely,

1. Air Transport.
2. Water Transport.
3. Land Transport.

![Figure 4.1 Modes of Transportation](image)
4.3.1 Air Transportation:

Airways refer to the movement of goods and a person from one place to another through the air. It is quickest, comfortable and costlier means of transportation. It is suitable for carrying precious articles, mail and high class passengers. It does not require construction and maintenance of the tracks for its operations but it is most expensive because heavy investments are required for the construction of aero planes, air ports, hangers, repair shops, wireless and metrological stations, wind indicators, control towers, neon bacons, and flood light-houses etc. It requires the permission of other countries for flying over the air territories.

The potential of air transport in India was first realized in 1911, when an aircraft carried mail from Allahabad to Naini across the river Ganga. However it was only in 1924 after world war-I British Imperial Airways started the first regular air service to India to provide a link with UK. The first civil aviation company which was manned and managed by India was set up by TATA sons in 1932.

The airline was set up under the Air Corporations Act, 1953 with an initial capital of Rs. 32 million and started operations on 1 August 1953. It was established after legislation came into force to nationalize the entire airline industry in India. Indian Airlines came into being with the enactment of the Air Corporations Act, 1953. It was renamed "Indian" on December 7, 2005. Indian Airlines started its operations from 1st August, 1953, with a fleet of 99 aircraft and was the outcome of the merger of seven former independent airlines, namely Deccan Airways, Airways-India, Bharat Airways, Himalayan Aviation Airlines, Kalinga Air Lines, Indian National Airways and Air Services of India.

An Indian airway is controlled by ministry of civil aviation, government of India. It has two divisions namely; Indian Airlines and Air India. Apart from this there are many private air transportation serving after privatizations of air transport system (Srivastava 1953).
Today India has 125 airports including 11 International airports spread all the states of country. Indian airports handled 96 million passengers and 1.5 million tons of cargo in year 2006-07, an increase of 31.4% for passenger and 10.6% for cargo traffic over previous year. The dramatic increase in air traffic for both passengers and cargo in recent years has placed a heavy strain on the country's major airports. Passenger traffic is projected to cross 100 million and cargo to cross 3.3 million tons by 2010.

The aviation industry has staff strength of over 6,000. According to a study by the International society of women Airline pilots, India is estimated to have 11 percent women pilots compared to the world average of 5 percent. The Indian Airlines and Air India have 153 women pilots on its role. (Http// Indian aviation, 2011).

However, there are studies which indicate that women pilots employed in airways are not able to withstand the long working hours, stress and the pressure to deliver safely at all cost. It is not a job that they would want to exchange for any other (International Society of Women Report, 2009). In addition, there are many studies pertaining women employees in their sector.

4.3.2 Water transportation:

Water transportation refers to the movement of goods and passengers on water through boats, steamers and ships. It has two kinds of transportation - Inland water transportation and Ocean transportation.

Two third of the world’s surface is covered by water. The use of boat as a means of transport is the oldest means of transport in the world. It is a natural means of transport and less expensive and slow and risky mode of transportation. Water transport is more flexible and uncertain in maintaining schedule times. Water transport has come for all nations but serves to limited areas.

Inland water is the cheapest mode of transport for certain kinds of travel both long and short distances. This transportation which comprises
canals, rivers and lakes had received a set-back in the past due to completion from the railway and road transport systems. Whereas Ocean transport was considered in olden days as a big hindrance, in modern times they are instrumental in promoting international trade. Up to 1824, sailing vessels were used. Now a day the importance of steamers and diesel ship has increased.

The advantages of waterways are that they are suitable for carrying bulky goods and heavy articles but not for public transportation due to its slow movements. It is cheaper than road and rail transport and it is relatively free from risks but it serves only limited areas.

India has a 7617 km coastline and there are 12 major ports and 187 minor/intermediate ports. Nearly 95 per cent of the country’s foreign cargo moves by sea (Manorama, 2009).

Inland water transport and water based mobility is not much prevalent in India except in northern states and Kerala especially for tourism and in some places just to cross rivers by fishermen community. In all of these the women have very little role to play.

In the water transport women workers are found very few, even if found, are assigned to kitchen and cleaning section.

4.3.3 Land transportation:

Under land transportation the prime factors to be taken into account is the configuration of soil or surface. Several kinds of carriage are used in road transport such as bicycles, bikes, Motor rickshaws, cars etc., but Road and Railways are considered two major land public transport system.

a) Railway transport:

Railway transport refers to the movement of goods and persons through trains. It is the most important means of land transport and suitable for carrying heavy and bulky articles over long distances.
In 1767 the first iron rails were laid at Coalbrookdale and the first passenger railway started by Stockton to Darlington line, built by Stephenson in 1825. The line comprised 27 miles. Early railways were a combination of horse power, fixed steam engines and locomotives. The official opening of the first train was run between Liverpool to Manchester line in 1830 (www.historyhome.co).

The Indian Railways have been a great integrating force during the last more than 150 years. It has bound the economic life of the country and helped in accelerating the development of industry and agriculture. From a very modest beginning in 1853, when the first train steamed off from Mumbai to Thane, a distance of 34 kilometres. The Railways in India provide the principal mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education.

Indian Railways have grown into a vast network of 6,909 stations spread over a route length of 63,327 kilometres with a fleet of 8,153 locomotives, 45,350 passenger service vehicles, 5,905 other coaching vehicles and 2,07,719 wagons as on 31st March, 2007. The growth of Indian Railways in the 150 years of its existence is thus phenomenal. It has played a vital role in the economic, industrial and social development of the country. It is the world's fourth largest railway network after those of the United States, Russia and China. The railways traverse the length and breadth of the country and carry over 30 million passengers and 2.8 million tons of freight daily across 28 states and two union territories.

Indian Railways is the largest employer in the world with a work force of 14 lakhs employees of which 78,989 are women as on March 31st 2007 it represents 6% of the total work force (Indian Railways Annual Report and Accounts 2006-07).
b) Road transport:

Road transport transportation refers to the movement of goods and persons through motor vehicles on road. It is very oldest and most universal mode of transport and it is sustainable for short distance service and light articles. Every part of the country can be easily reached by road transport and it is less expensive when compared to rail and air transport. The expenditure involved in the construction and maintenance of road is comparatively lower than railways.

4.4 Evolution of transport:

The transport system has evolved with the development of human culture. It has developed across several stages like the hunting stage, the pastoral, agricultural, industrial and commercial stages. Man has made many achievements in the development of transport and at the same time has also helped civilization to develop.

In the olden days, before human civilization, roads did not exist, and people used to walk for their livelihood and social life. Long distance walking tracks developed as trade routes in Paleolithic times. In human history, the only form of transport apart from walking was by using domestic animals (http://en.wikipedia.org/wiki/History_of_transport).

The first earth tracks were created by human was by carrying goods and following game trails. Tracks were naturally created at points of high traffic density. As animals were domesticated, horses, oxen and donkeys, dogs, camels etc, became an element in track creation. With the growth of trade, tracks were flattened and widened to accommodate animal traffic. Thus different animals were used in different regions to local conditions for transport. Use of domestic animals for social life was a part of development of human culture (William, 1969: 425).

Animal drawn wheeled vehicles developed in Europe and India in the 4th millennium B.C. and China is about 1700 BC. The elephant was tamed for
transport is more conjectural in the 3rd millennium BC. Representation on seals show a close knowledge of the animals and part of elephants’ skeleton has been found in a high level at Mohanjadoro (Prasad, 2003:100).

4.4.1 Development of transport in Europe:

Before industrial revolution in the European continent roads and transport systems were not much developed. Before the Romans conquered the British domain there existed in England, tracks which catered to the needs of a very light- wheeled traffic, pack animals and pedestrians. The Romans constructed good roads from England to other important places. When Roman left England, they left behind a network of good roads. But after the Roman withdrew the condition of roads in England become unsatisfactory on account of neglect and ignorance. Even in the 18th century the condition of England roads were very unsatisfactory. Mr. Arthur Young wrote in 1760 about the roads in Oxford share as being “in a condition formidable to the bones of all who travelled on wheels”. It was very difficult for coaches to move smoothly on roads. The number of passengers who travelled by coach in 1763 between London and Edinburg was estimated by Mr. Lardner at not more than 25 per month. Even when road in England were much developed the number did not exceed 140 per day in 1935 (Srivastava, 1953).

In Industrial revolution, John Loudon Mc Adam (1756-1836) designed the first modern highways using inexpensive paving materials of soil and stone aggregate. When the industrial revolution took place in the European continent, workers had to travel daily to and from the factories which increased the local passenger’s movement (Srivastava, 1953).

France is famous throughout the world for excellent roads- the main reason being maintenance since Middle Ages. The contribution of Napoleon to road construction is great and unforgettable. But public transport system was not in practice. However, the rich and nobles were had their own animal drag carts.
4.4.2 Transport system in India during Vedic period:

The Vedic people were conscious of the necessity of the different forms of transport and regarded the maintenance and protection of the public highways as one of the duties of the King. The ancient Indian transport system was grouped under two divisions, land and water. The Rig-Veda hymns refer these forms of transport. (Prasad, 2003:100).

The animals were tamed and were employed by man as draft animals during Vedic period. Bull is well represented in Indian literature as a means of conveyance. The Nandi seals found from different sites of Indian culture clearly speak of the use of bulls as the means of transport and communication. The camels were frequently used for transport or carriage loads. Part of the scapula of camel found is the only direct local evidence of the existence of this animal at that time (Prasad, 2003:102).

In the later Vedic period, people learnt using vehicles for carrying men and commodities. The knowledge of transport made man learn craft of trade and commerce along with the social life. The three types of vehicles used and termed as ‘Yana’s’ are,

**Loghuyana – Small vehicles (Chariots)**

a) Golimgam – A cart of medium size drawn by bulls

b) Sakata– Big cart

The long distance travel was named as ‘Disayatra’. This was used like modern mail as well as passenger vehicle. Vedic literature gives detailed information about chariot vehicles in India. Harappa civilization clearly indicates the existence of chariot in the 3rd millennium B.C. Apart from this; there were two types of public passenger chariot, it was carried by three or four horses namely,

1. **Yana Ratha (utility chariot):** This was used for both carrying goods and passengers.
2. **Aupvada (Travelling carriage):** It was a chariot for passengers only (Prasad, 2003:103).

### 4.4.3 Transport in ancient India:

Excavations at Mahanjodoro and Harappa established beyond doubt that the Indians had adopted the art of road building even during 4000 year B.C. But the importance of road and transport came to be realized only when the organized government was established. Kautilya, the celebrated economist of the Mourayan period has written that in his times city roads were 24 feet wide and the roads leading to the battlefield and villages were 48 feet in width.

In the regime of Chandra Gupta Mourya there was a transport department and a Grand trunk road connected to Patna with NWF province. Mr. Starato confirms that along this road the two Greek travelers Magasthenes and Irastathenes travelled north India during the regime of Emperor Ashoka; there were good roads in India, whose mention has creditably made by Chinese traveler Fahien. According to the illustrations of foreign travelers, even roads were well developed and public transport system was existed for common man. But vehicles were used by kings and elite of the society in a larger scale. (Srivastava, 1953:240, Kuriyan, 1969).

### 4.4.4 During medieval period:

During Moghul period the roads and transport were well developed for the growth of trade and commerce. Though the public passenger vehicles were not found in large number, goods carriers were developed in larger scale. Mohammed Tughlaq had constructed a trunk road from Delhi to Daulatabad which, according to Ibn Batuta, was travelled in 40 days. Shershah was very famous for the construction of roads. A monumental volume “Tarikhe-Shershah” reveals that, in his time roads were looked after and manage by the state.
There is a mention in one of the famous book of the Moghul period—“Chahar Gulshan” that, in those days there were 24 roads out of which 13 are very important for transport (Srivastava, 1953, Kuriyan, 1969).

4.4.5 Development of transport during British rule in India:

During British rule in India, the administrators concentrated on the developments of roads and transport in India for the convenient of marketing and administration. Lord William Bentinck reviewed the idea of constructing the roads by connecting Peshawar, Delhi and Calcutta. Lord Dalhousie created public works department for the improvement of transport. Lord Mayo and Lord Rippon acted as a stimulus to the development of road and transport in India. During World war II road construction activities increased. Even though, public transport was in practice, Indian villages were self sufficient and most of people were using carts and animals for goods carrier. Elites were using their own Carts for transport.

After independence Indian roads were developed under five year plans. In 1st five year plan Rs, 97.6 crocs released for road development programmers to be undertaken by the Centre and the various states.

4.5 Public transport:

An important social role played by public transport is to ensure that all members of society are able to travel which include groups such as young, the old, the poor and rich, and other strata of the society. Public transport opens to its users the possibility of meeting other people. It is a location of inter social encounters across all boundaries of social, ethnic and other types of affiliation. It provides a good means of communication and breaks the isolation of cities and villages and facilitates the promotion of social awaking in the masses. Public transport maintains social contacts and act as an agent of transforming the culture from one place to another and from one society to another. It helps in cultural exchange, thoughts, ideas, knowledge of the
people, and also builds the homogeneity among the people. Transport also helps in promoting the cause of education.

Public transport comprises passengers’ transportation services which are available for use by the general public. Public services are usually funded by fares charged to each passenger. Public transport consists of light rail, commuter train, buses, Metro, Mono rail etc. It is provided by a company or authority. Apart from all the means of transport road transport does occupy a pivotal role in the overall transport system in India. With an area of 3.29 sq Kms stretched over a distance of 3000 Kms and across 6 lakhs villages spread all over the country. Road transport is more popular in India because of its easy availability, flexibility of operation, adaptability to individual needs (Motor transport statistics of India, 1996:37). In the road transport service bus is one of the most popular modes of transport.

In a country which has not been adequately served by advanced modes of transport, such as railways, airways and road transport, the road transport become most significant mode of transport. As one author puts it, “Undoubtedly, rail, shipping and air transport occupy an important place in our modern mode of transport in society, but the basic need is fulfilled by road transport alone. One can exist without rail, shipping or air transport but not without the roads. Even the rail, shipping and air depend upon the road for completing the transport service”.

The most important feature of road transport is its flexibility. Road transport can penetrate into the far corners of the country and can provide a door to door service. While other modes of transport are not economical over shorter distances carrying fewer loads, road transport is ideally suited for this purpose. Without its complementary service, the other sophisticated modes will not be able to achieve the end purpose of transport. The route course and schedules in road transport need not be as rigid as in the case of the railways and air transport, and this gives the advantage of flexibility to satisfy a variety of transportation needs suitable for interior transportation.
In terms of investment also, road transport has an edge over the modes of transport. The track cost in the case of railways and the very high cost of acquiring air-planes or ships require very heavy investments. Road transport has a low cost technology and the costs of maintenance of vehicles, as well as roads are not as high in the case of other capital intensive modes of transport.

4.6 Etymology of bus:

The word “Bus” is a derivation of “Omnibus” vehicle meaning “Vehicle for all” where Omnibus means “for all” in Latin (Omni meaning “all”), reflecting its early use for public transport. The motorized transport replaced horse drawn transport in 1905 and become popular.

A bus is a road vehicle capable of carrying numerous passengers. Buses can operate with low capacity and on conventional roads with relatively inexpensive bus stops to serve passengers. Therefore buses are commonly used in rural areas, towns, cities and even in metropolitan cities.

The first public bus line was launched by Blaise Pascal in 1662, but it ceased operation 15 years later, and no further such services are known until 1820s. Early horse drawn buses were a combination of a hackney carriage. Steam powered buses existed during 1830s. The first engine powered buses emerged in 1895 along with development of automobile. The different models of buses expanded in the 1900s.

The role of mechanized transport in India started in the beginning of the 19th century and the first motor vehicle was imported to India in 1898. In the earlier years it remained a novelty and luxury meant for the rich.

As it evident ‘history’ is ‘his-story’, and women’s role and their participation in all walks of life is hardly documented. It is not documented also partly because the involvement was almost nil. At most women were allowed to make use of such facilities while in transit.
It is only now women are seen in transport industry apart from being commuters as employees in different strata also as owners. This dimension is essential for all such sociological enquiry.

4.7 Public road transport in India:

The growth of public road transportation in India actually began in the early 1920s as a result of the diversion of surplus army vehicles to civil market after the First World War. The growth was unprecedented and by the end of 1920s there were the large number of vehicle operating in various parts of the country. The mushrooming of private vehicles led to unhealthy competition and even route cutting among operators. To control over this, The British Government in India appointed Mitchell- Kirkness committee in 1932. It observed the evils of the public service motor transport suffering largely due to the excessive competition and unemployment amongst buses and their concentration on more popular routes. To put an end on this, the Government enacted a new legislation in 1939 entitled ‘The motor Vehicle Act’ of 1939. This act ensures the role of road transport on the basis of healthy competition in the public bus transport system in India (Padam, 1990).

Before independence an attempt was made to nationalize bus transport industry in 1943 by bringing in a Road Transport Corporation Act which caused the established of Bombay State Road Transport Corporation. After independence the Road Corporation Act of 1950 was brought into force enabling the state governments to form Road Transport Corporation within their jurisdiction (Padam, 1990). Roads are the dominant mode of transportation in India today. They carry almost 85 percent of the country’s passenger traffic and more than 60 percent of its freight.
Figure 4.2: Indian National Highways

Source: www.mapsofindia.com

The above map indicates the road map of national highways in India connecting major cities.
4.8 Urban road transport system:

As workers live at a distance from the places of their employment, commercial establishments, factories, officers, students, etc; availability of cheap and efficient transport service has become one of the essentials of modern urban life. In recent years the growth of urban population has been increasing at much faster rate due to speedy industrialization. Demand for urban transport in big cities and town has increased.

The urban public transport system in Indian begins in 1881 at Culcutta by Tramways Co. The early tramcars in Culcutta were drawn by horses. After a few years, steam locomotives were introduced to draw tramcars. It has disappeared from the scene since 1901 when electricity was harnessed to pull tramcars in Culcutta. Petrol-driven buses replaced the tramcars in 1931. In the same time the urban transport was started in Madras, Kanpur Delhi. The mechanical bus road transport started since 1920 in all big cities in India like, Bombay, Kanpur, Lucknow, Allahabad, Patna, Nagpur, Jaipur etc; These urban transport services have either been organized by independent motor transport corporations or are directly controlled by Municipal Corporations. The city bus service provides a cheap means of transport and considerably helps other means of transport at peak hours (Srivastava, 1953). At present, in the major big cities of India bus services are operating in 17 cities and rail transit exists only in 4 out of 35 cities with population is excess of one million. (Gandhi, Transport Journal, 2005). Cities play a vital role in promoting economic growth and prosperity. The development of cities largely depends upon their physical, social and institutional infrastructure. In this context, the importance of inter-urban transportation is paramount.
4.9 Growth of BMTC

BMTC has a long history spanning over six decades. It has origin as a Government–backed joint stock company before independence. Passenger transport picked up in the princely Mysore state during the regimes of the rulers like Krishnaraja Wodeyar and Jayachama Raja Wodeyar.

Bangalore had the first priority while developing transport services, considering its importance and its potential of growth. The Government of Mysore issued a notification on January 31st 1940, which led to the first
important step to the foundation of Bangalore Transport Company Limited (BTC) as a joint stock company. With a capital of Rs. 5,00,000, BTC had the monopoly to run the buses in Bangalore for a period of 10 years or as long as the Government was satisfied that it was in the interests of the public. It operated in both the City and cantonment areas of Bangalore with 98 buses. Later the Government of Mysore nationalized the city’s transport services under the nomenclature of Bangalore Transport Services (BTS) with the enactment of the Bangalore Road Service Act on 1-10-1956, acquired 131 buses and paid a compensation of Rs. 15.50 lakhs to BTC and it ran buses 10-mile radius in the city.

In the beginning the State had the public Transport system as a Government (MGRTD- KARNATAKA WAS STILL Mysore). Then in 1961 the Mysore State Transport Corporation (MSRTC) was formed by a special Act, with BTS as one of its divisions. ‘Mysore’ was later replaced by ‘Karnataka” after the renaming of the state. Thus MSRTC become KSRTC. The next milestone in the history of BTS, in the year 1997 BTS was renamed as Bangalore Metropolitan Transport Corporation (BMTC) and was bifurcated from its parent body KSRTC (www.bmtcinfo.com).

Figure: 4.4: Various Buses of BMTC
4.9.1 About BMTC Organization:

BMTC offers mobility for residents of Bangalore particularly middle and lower income group. Over all usage of transit services in Bangalore is high with about 67 percent of people are depending on public bus transport for their daily movements. About 45-50 thousands commuters are benefitted by BMTC bus service every day.

Bangalore Metropolitan Transport Corporation (BMTC) was formed, as an independent Corporation with effect from 15-08-1997 after bifurcation from Karnataka Road transport Corporation, vide no. HTD/127/TRA/96 dated 7-8 1997, in which it consisted of two Divisions headed by Director (BTS since 1993. Prior to that since from 1961 it was under MSRTC/ KSRTC).
BMTC is catering to the transport services in city and suburban areas of Bangalore in a radius of about 40.4 kms and the area of operation is expanded to 5130 Sq.kms in view of greater Bangalore. The Corporation has 580 schedules and fleet strength is 5542 and 977 new vehicles. It operates in 11.13 lakhs effective kms per day (BMTC Decade of service publication, 2008).

The corporation has accorded high priority for providing increased amenities to the commuters. There are four major bus Stations at Subhashnagar (Kempegowda Bus Station), Shivajinagar, City Market and Shanthinagar. In addition to this, there are 40 minor bus stations in different parts of Bangalore.

**Figure 4.6: BMTC Proposed feeder Routes**

![BMTC Proposed feeder Routes](http://bangalore.citizenmatters.in)
4.9.2 Organizational structure:

By looking at the organizational structure, there is hardly any representation for women. Which is gender based. The management of BMTC organization has an Administrative Board, it comprised of 12 Directors. Honorable Transport Minister, Government of Karnataka will be the Chairman of the board and a Vice Chairman are nominated member of the state government and 12 Directors of the Board. All directors are official Directors. This Board looks after entire function of the BMTC like Technical, Security, Projects, Finance, Human resources, Labour welfare etc.

Apart from this the organization has two administrative committees like, Commuter Comfort Task Force (CCTF) and Commuter Advisory and Facilitation Committee (CAFC). The CCTF committee is consisting 12 official and 8 non official members representing various non government/social/welfare organizations in Bangalore city are nominated members. It covers issues such as grid route, display boards, destination boards, sitting comfort and ticket booking facility etc. The CAFC has same structure of functional body. These committees meet once in three months and discuss the issues such as establishing rapport between the travelling public and the Corporation by creating public participation, redresses of the commuter grievances, sharing of information as well as extending support for new developmental activities (BMTC Annual Report -2009).
TABLE 4.1 ORGANIZATIONAL STRUCTURE OF BMTC

Source: www.bmtcinfo.com
### 4.9.3 Work force:

The BMTC had the staff strength of 28,844 employees as on 31-03-2010. The detail of staff position is given hereunder.

**TABLE 4.2 COMPOSITION OF WORK FORCE IN BMTC**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category</th>
<th>Total employees As on 31-3-2010</th>
<th>Women employees As on 31-3-2010(with %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Class-I, II &amp; III Officers</td>
<td>111</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>Drivers/Drivers-cum-Conductors</td>
<td>8976</td>
<td>Nil</td>
</tr>
<tr>
<td>a</td>
<td>Conductors</td>
<td>5150</td>
<td>800 (15.53)</td>
</tr>
<tr>
<td>b</td>
<td>Conductors</td>
<td>592</td>
<td>25 (4.22)</td>
</tr>
<tr>
<td>c</td>
<td>Traffic supervisors</td>
<td>1665</td>
<td>100 (6.00)</td>
</tr>
<tr>
<td>d</td>
<td>Mechanics</td>
<td>943</td>
<td>144 (15.27)</td>
</tr>
<tr>
<td>e</td>
<td>Administration</td>
<td>3</td>
<td>2 (66.67)</td>
</tr>
<tr>
<td>f</td>
<td>Civil Engineers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Regular Employees</strong></td>
<td><strong>17440</strong></td>
<td><strong>1088</strong></td>
</tr>
<tr>
<td>3</td>
<td>B-Temporary/Trainee employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Driver/Driver-cum-Conductors</td>
<td>8327</td>
<td>3 (0.36)</td>
</tr>
<tr>
<td>b</td>
<td>Conductors</td>
<td>512</td>
<td>300 (58.59)</td>
</tr>
<tr>
<td>c</td>
<td>Conductors</td>
<td>1553</td>
<td>322 (20.73)</td>
</tr>
<tr>
<td>d</td>
<td>Mechanics</td>
<td>78</td>
<td>17 (21.79)</td>
</tr>
<tr>
<td>e</td>
<td>Traffic supervisor</td>
<td>411</td>
<td>185 (45.01)</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>10,881</strong></td>
<td><strong>827</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total of ( A+ B)</strong></td>
<td><strong>28,844</strong></td>
<td><strong>1,915</strong></td>
</tr>
</tbody>
</table>

The above table 4.3 reflects the total staff strength and women work force representation in BMTC organization during the year 2010. Out of the total 17440 regular employees 1088 women employees are working which represents 6.23% of total workforce. It is same in the case of temporary/trainees employees. There are 10881 temporary/trainees and out of them 827 women workers are found which represents 5.87% of total temporary employees. If we look at grand total of regular and temporary/trainees’ work force out of 28844 of total work force women represent only 1915 which comes to 5.98%. Among women employees there are 800 regular and 322 trainees. Out of the total 1915 regular and trainee women work force 1122 work as conductors which constitutes 58.59% of the total women employees of BMTC organization. It clearly indicates that, even feminization takes place in transport industry. Majority of women concentrate on lower level occupation. Even 33% women reservation in recruitment has been implemented by the transport industry but it does not attract women in these sectors because they are still considered men’s working world.

**4.9.4 Organization structure of the BMTC Depots:**

At present BMTC have 36 depots in and around the city. Out them 35 depots are working in Bangalore and 36th depot is situated at Bidadi which is not established completely. Every Depot is in charge of Depot Manager who looks after 7 sections. The conductors come under the control of Traffic section which has 6 ranks of officials above the conductors. The conductor’s position is ranked last position. They are placed under ‘D’ group of BMTC organization’s work force structure.
4.10 Entry of women conductors to BMTC:

Transport industry has long been considered men's field. Women were away from this sector till 1980. Later on women gradually entered into this sector as bus conductors in different parts of India. In the same way, the situation can be seen in Karnataka road transport sectors both in KSRTC and BMTC. There was no single woman conductor till 1980, but gradually 12 women conductors were recruited. The important aspect is that they all belonged to the Anglo Indian community. These Anglo-Indian women had no restrictions by their community to work in male dominated sectors like...
transport industry (Prajavani daily news paper, 2005). Later few were appointed on compensatory grounds against the death of their husbands or their family members till 1990. Gradually it increased to 20 women conductors. Between 1991 and 1993, the BMTC called for general recruitment for conductor’s jobs and a small number of women entered this sector. (Vijaya Karnataka, Kannada daily, 2009).

### TABLE 4.4 LISTS OF BMTC DEPOTS AND ITS LOCATION AND NUMBER OF WORKING WOMEN CONDUCTORS

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Dep No</th>
<th>Name Of The Depots</th>
<th>No. of Women Conductors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D-1</td>
<td>Shanthinagar (ITMC under Construction)</td>
<td>00</td>
</tr>
<tr>
<td>2</td>
<td>D-2</td>
<td>Shanthinagar</td>
<td>54</td>
</tr>
<tr>
<td>3</td>
<td>D-3</td>
<td>Shanthinagar</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>D-4</td>
<td>Jayanagar</td>
<td>69</td>
</tr>
<tr>
<td>5</td>
<td>D-5</td>
<td>Vijaynagar (TTMC under construction)</td>
<td>00</td>
</tr>
<tr>
<td>6</td>
<td>D-6</td>
<td>Indiranagar</td>
<td>47</td>
</tr>
<tr>
<td>7</td>
<td>D-7</td>
<td>Subasnagar</td>
<td>60</td>
</tr>
<tr>
<td>8</td>
<td>D-8</td>
<td>Yeshwanthpur</td>
<td>75</td>
</tr>
<tr>
<td>9</td>
<td>D-9</td>
<td>Peenaya</td>
<td>52</td>
</tr>
<tr>
<td>10</td>
<td>D-10</td>
<td>Hennur (Banasawadi)</td>
<td>32</td>
</tr>
<tr>
<td>11</td>
<td>D-11</td>
<td>Yelahanka</td>
<td>44</td>
</tr>
<tr>
<td>12</td>
<td>D-12</td>
<td>Kengari</td>
<td>17</td>
</tr>
<tr>
<td>13</td>
<td>D-13</td>
<td>Kathri Guppe</td>
<td>60</td>
</tr>
<tr>
<td>14</td>
<td>D-14</td>
<td>R.T.Nagar</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>D-15</td>
<td>Koramangala</td>
<td>27</td>
</tr>
<tr>
<td>16</td>
<td>D-16</td>
<td>Deepanjalinagar</td>
<td>96</td>
</tr>
<tr>
<td>17</td>
<td>D-17</td>
<td>Chandralayout</td>
<td>40</td>
</tr>
<tr>
<td>18</td>
<td>D-18</td>
<td>ITPL</td>
<td>04</td>
</tr>
<tr>
<td>19</td>
<td>D-19</td>
<td>Electronic City</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>D-20</td>
<td>Banashankari (TTMC under construction)</td>
<td>29</td>
</tr>
<tr>
<td>21</td>
<td>D-21</td>
<td>Rajarajaeswar Nagar</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>D-22</td>
<td>Peenya</td>
<td>31</td>
</tr>
<tr>
<td>23</td>
<td>D-23</td>
<td>Kalyana Nagar</td>
<td>30</td>
</tr>
<tr>
<td>24</td>
<td>D-24</td>
<td>K R Puram</td>
<td>21</td>
</tr>
<tr>
<td>25</td>
<td>D-25</td>
<td>H S R Layout</td>
<td>00</td>
</tr>
<tr>
<td>26</td>
<td>D-26</td>
<td>Yeshwanthpur</td>
<td>90</td>
</tr>
<tr>
<td>27</td>
<td>D-27</td>
<td>Jigini</td>
<td>06</td>
</tr>
<tr>
<td>28</td>
<td>D-28</td>
<td>Hebbala</td>
<td>22</td>
</tr>
<tr>
<td>29</td>
<td>D-29</td>
<td>K R Puram</td>
<td>12</td>
</tr>
<tr>
<td>30</td>
<td>D-30</td>
<td>Yelahanka</td>
<td>22</td>
</tr>
<tr>
<td>31</td>
<td>D-31</td>
<td>Srigandada Kavalu (Summana Halli)</td>
<td>60</td>
</tr>
<tr>
<td>32</td>
<td>D-32</td>
<td>Surya City</td>
<td>04</td>
</tr>
<tr>
<td>33</td>
<td>D-33</td>
<td>Poorana Pragna Layout</td>
<td>12</td>
</tr>
<tr>
<td>34</td>
<td>D-34</td>
<td>Kothannur Dinne</td>
<td>02</td>
</tr>
<tr>
<td>35</td>
<td>D-35</td>
<td>Kannahalli</td>
<td>04</td>
</tr>
<tr>
<td>36</td>
<td>D-36</td>
<td>Bidadi (To be Start)</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Women Conductors</td>
<td>1100</td>
</tr>
</tbody>
</table>


In the year 1996 the Karnataka government introduced the policy of 30 percent reservation in the government recruitments and state government public sectors for women. This reservation policy in recruitments attracted
young educated girls, and a large number of women entered the BMTC as bus conductors in the year 1997 and 2001 and subsequent recruitments till 2010. At present the BMTC has 1100 women bus conductors (BMTC Official source, 2010).

Conclusion:

The present chapter narrates the brief history of transportation such as origin, growth, modes and significance of the transportation. It provides detailed information of evolution of transport system as well as reflection of the human civilization. This has helped to get clear picture about the needs of transportation in human life and growth of the social system. This is necessary to fulfill the gap of understanding the existence of urban transport system and its growth as organizational structure and workforce. Further this chapter helps to analyze the remaining chapters of the thesis, where the problems and challenges of women conductors in transport sector are discussed clinically.