

SUBMITTED TO KARNATAKA EVALUATION AUTHORITY

Performance of North  
Eastern Karnataka Road  
Transport Corporation:  
Opportunities and  
Challenges

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## Chapter 1

### Background of the Study

#### 1.1 Background of the Study:

The Department of Public Enterprises (DPE) sponsored an evaluation of the performance of North Eastern Karnataka Road Transport Corporation (NEKRTC) with a view to help your organization to prepare a strategy for its future working and development. This was taken up in pursuance of the latest evaluation policy of Government of Karnataka (GoK).

#### 1.2 Evaluation Framework:

- ***Purpose of Evaluation:*** The purpose of this evaluation study is to make a rapid assessment of the situation and suggest measures for making the corporation financially viable. It is observed from the back ground literature on NEKRTC that the corporation has been running in losses since its inception. The accumulated losses amount to Rs.444.11 crores at the end of 2012-13. apart from this another important factor is the growing competition from private transport operators of all sorts, sizes and hues. Hence, in this situation is felt necessary to evaluate the existing practices and suggest future road map for the corporation.
- ***Scope for evaluation and time period:*** The scope of the study is limited to NEKRTC. The study period is since the inception of the corporation. Various best practices would be studies and compared with the corporation in order to come up with best turnaround strategy for the corporation
- ***Stakeholders and Key audience:*** The working officials and the staff of NEKRTC are the stakeholders with whom focused group interviews would be conducted as a part of the study. The key audience would be the local communities
- ***Study Evaluation:*** Basing on the corporation perspective the present study will tries to analyse whether the set objectives of the corporation are achieved or not. It further evaluates the effectiveness of the existing administrative processes, programmes, schemes in the process of achieving the set objectives.
- ***Objectives of the Study:*** i. to analyse the objectives of the corporation; ii. rating the key performance areas of the corporation with reference to

industry leaders in the last five years; iii. To study the actual and expected return on investment and to make a gap analysis for making strategic recommendations for increasing return on investment; iv. To develop a balanced score card which can ensure the financial viability of NEKRTC.

- **Benchmark for Evaluation:** Evaluation will be carried out based on the best practices in the Road Transport Industry and bench marking NEKRTC in key performance areas viz., Financial; Customer; Internal business processes; and Organizational learning and growth. Bench mark evaluation will be carried out after analyzing the researches carried out at Central Institute of Road Transport, Pune.
- Since the study is based on the focused group interviews and secondary data the confidence interval can be set at 95%. The data availability and the period of study is limited to 12 years i.e., since the inception of the corporation.
- As the study is limited to a single corporation there may not be much risks involved in data collection. Only limitation might be the availability of officers in their busy work schedules.

### 1.3 Role of Transport corporations in Economic Development of the State

Transport Sector in India is a very extensive system comprising different modes of transport like roads, railways, aviation, inland waterways and shipping, which facilitates easy and efficient conveyance of goods and people across the country. The backbone of economic development of India depends on its transportation. Road Transport is the primary mode of transport which plays an important role in conveyance of goods and passengers and linking the centers of production, consumption and distribution. It plays a significant role in influencing the pattern of distribution of economic activity and improving productivity. It is also a key factor for promoting socio-economic development in terms of social, regional and national integration.

Sustained economic growth has brought about expansion of the transport sector. The share of transport sector in Gross Domestic Product (GDP) of India has increased from 6.4 % in 2003-04 to 6.5 % in 2011-12. However, the contribution of road transport sector in GDP has increased from 4.6% in 2003-04 to 4.8 % in 2011-12. The share of various sub-sectors of the transport sector in the GDP since 2003-04 is given in Table 1.1.

**Table 1.1**  
**Share of Different Modes of Transport in Gross Domestic Product**

Sector	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
As percentage of GDP(at factor cost and constant prices)									
Railways	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Road	4.6	4.8	4.8	4.8	4.7	4.8	4.7	4.6	4.8

Transport *									
Water Transport *	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Air Transport *	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Services	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4

*(Source: Central Statistical Organisation, Government of India)*

### 1.3.1 Governments Role in Transport Corporations

Under the federal set up in India, the centre, states and local authorities have well defined powers of taxation and management of road transport, as earmarked in the Seventh Schedule of the Constitution. The Union Government of India levies import duties on the import of diesel, motor spirit, tyres and tubes, and vehicle and spare parts/accessories; and excise duties on diesel, motor spirit, tyres and tubes, and vehicle and spare parts/accessories, produced or manufactured in India.

State governments levy different types of taxes on road transport. These taxes include sales tax/VAT on motor spirit and lubricants and specific taxes like motor vehicle taxes, fees, tax on passengers and goods. Motor Vehicle Taxes (MVT) is levied in all States and Union Territories (UTs) except UT of Lakshadweep. The existing tax structure of motor vehicles in India is characterized by variations in tax structures, incidence, tax rates and bases of levies.

### 1.3.2 Central Government Levies

The import duties and excise duties on motor vehicles & accessories, tyres and tubes, high speed diesel oils & motor spirit collected by central government from Road Transport Sector indicates that revenues collected by central government from motor vehicles & accessories, tyres & tubes, high speed diesel oil & motor spirit increased from Rs. 1,862.7 crores, Rs. 803.4 crores, Rs. 727.6 crores and Rs. 1,202.3 crores in 1990-91 to Rs. 21,402.2 crores, Rs. 4,871.1 crores, Rs. 15,673.3 crores and Rs. 27,465.0 crores in 2012-13 respectively. High speed diesel oil witnessed a sharp fall in revenue collection from Rs. 21,824.0 crore in 2008-09 to Rs. 7,715.7 crore 2009-10. Motor spirit and high speed diesel oil witnessed a declining trend in tax revenue collection since the year 2010-11. However, there was a continuous increase in collection of tax revenue from motor vehicles & accessories and tyres & tubes after 2008-09. The revenue collected by central government from motor spirit was the highest (39%) followed by motor vehicles & accessories (31%), high speed diesel oil (23%) and tyres & tubes (7%) during 2012-13 respectively. The composition of tax revenue collected by central government from road transport sector as on 31st March, 2012 is shown in graph 1.2.

### **1.3.3 State Government Levies**

The motor vehicle taxes and fees, sales tax/VAT on motor spirit and lubricants and passengers and goods tax collected by state governments from road transport sector during the period 1990-91 to 2012-13. It depicts the increase in revenue to the state governments from vehicle taxes and fees, sales tax/VAT on motor spirit and lubricants and passengers and goods tax from Rs 1,566.3 Crores, 631.5 crores and 1,061.8 crores in 1990-91 to Rs 34,173.7, 15,528.8 and 14,725.0 in 2012-13 respectively. The 'motor vehicle taxes and fees' and 'Passengers and goods tax' had Chart-9 depicts the percentage share in the total tax revenue collected by state governments during 2012-13. The motor vehicle taxes and fees accounted for highest share of 53%, followed by sales tax/VAT on motor spirit and lubricants (24%) and passengers and goods tax (23%).

## **Chapter 2**

### **Organizational and Operational Performance of NEKRTC**

#### **1.3 Introduction**

KSRTC was set up in 1961 under the provisions of Road Transport Corporation Act, 1950. It is wholly owned by the Government of Karnataka. The Government is also a shareholder in this corporation. KSRTC is also known for its introduction of Volvo B7RLE low body city buses. These buses are air conditioned, with improved tyre suspensions, a far cry from the other old members of fleet.

Till August 1997, KSRTC had a fleet of 10,400 buses, operating about 9500 schedules. In August 1997, KSRTC was divided and a new corporation by the name Bangalore Metropolitan Transport Corporation (BMTTC). In November 1997, another new road transport corporation called North Western Karnataka Road Transport Corporation (NWKRTC) was formed to cater to the transportation needs of North Western parts of Karnataka. Recently, the North Eastern Karnataka Road Transport Corporation (NEKRTC) was also formed with its corporate office in Gulbarga. The company runs a fleet of buses of all types like ordinary, semi-luxury, deluxe, and air-conditioned Volvo "Airavat" buses. The KSRTC operates services within Karnataka as well as far flung destinations such as Mumbai, Pune, Chennai, Trivandrum, Kochi, and Vijayawada, among others. The KSRTC runs different type of buses to suit every section of the society. Their main mission is "Meeting Challenges with Innovation".

#### **2.2 RTC ACT**

The public transport sector provides essential services required for the development of the economy, industry and agriculture. Transport is a State subject under the Constitution of India. The Government of India enacted the Road Transport Corporations Act in the year 1950 to provide, secure and promote the provision of an efficient, adequate, economical and properly coordinated system

of road transport services in the State which shall act on business principles in carrying on its undertaking.

The amended RTC ACT of 1982 provides for the management of the North Eastern Karnataka Road Transport Corporation by the Board of Directors. The board of the Corporation consisted of both official and non-official directors. The State Government appoints the Directors representing the State Government.

Over the past 13 years of its existence, the corporation has been trying to provide services to almost all the areas that are covered in its perview by expanding its division operations from one to eight and recently by commissioning Gulbarga-2 division and Kukanoor depot. As on March, 2013 NEKRTC held its corporate office at Gulbarga with 9 operating divisions viz., Gulbarga-1, Gulbarga-2, Yadgir, Bidar, Raichur, Koppal, Bellary, Bijapur and Hospet. It carried out its operations through 46 depots and one regional workshop at Yadgir, besides two civil engineering divisions at Gulbarga & Bellary and two regional training institutes at Hagaribommanahalli & Humnabad. NEKRTC has played an important role in the economic growth through operating an extensive passenger transport network and trying to reach interior villages. It provides direct employment to 18714 people whose professional skills are kept in high regard. It has achieved remarkable performance in the face of heavy odds and its services are cost effective.

In light of these overwhelming activities, the corporation has tried to achieve its major objectives of community service and financial viability. It has been trying to take the transport services to the doorsteps of villagers. But in recent years the popular expectations have soared. In open market economy, the expectations of people with respect to frequency, quality and range of services have become substantially higher. Therefore, the existing market structure has made the corporation to face the challenges like productivity enhancement, market orientation, financial and operational reengineering.

Keeping in view the present background the corporation has assigned (to Institute of Public Enterprise Hyderabad), an evaluation study to make a rapid assessment of the situation and suggest measures for making the corporation financially and operationally viable.

The major objectives that are identified for evaluation are:

- To analyse the objectives of the corporation
- Rating the key performance areas of the corporation with reference to industry leaders in the last five years
- To study the actual and expected return on investment and to make a gap analysis for making strategic recommendations for increasing return on investment

- To develop a balanced score card which can ensure the financial viability of NEKRTC

The analysis of NEKRTC is based on published data and information provided by the Corporation, and through focused group interviews. The data used for the study is from 2000-01 to 2012-13.

### **2.3 Organisational Structure:**

The organisational structure is divided into three layers, termed as Central Office at Gulbarga, Divisional Controller, Depot Managers Regional Workshop. The study has taken the depot as the basic unit as it is the actual point of action and the revenue generating unit. The depot manager heads the depot level operations and reports to the divisional controller. The depot manager is also supervised by Divisional Traffic Officer for traffic related issues. The Divisional Mechanical Engineer supervises the mechanical parameters of the depot. Other functionaries like the Accounts Officer, Stores Officer, Labour Officer and Statistical Officer assist the Depot Manager to run the depot efficiently. It is mandatory for the Divisional Officers to visit the Depots every week to oversee their respective departments.

The resources like buses, materials, tyres, men and finances are provided to the depots from the divisional office. The bus schedules are planned by the Divisional Traffic Officer in concurrence with the Divisional Controller. The bus operations can be mainly divided into ordinary schedules that operate mainly in the village areas and express schedules that run between cities. The price structure is less in ordinary routes as compared to the express routes. The pricing structure is decided by the Transport Minister and neither the Divisional Controller nor the Depot Manager can increase the price. Only in the case of high private competition in the non-monopoly sector it is understood that the Divisional Controller reduce the price with the permission of the General Manager Traffic Department.

The procurement of fleet and other major moveable items is generally decided by the Central Office. Minor requirements are purchased at the divisional office level, however there is a cap on the local purchase amount for the divisions depending on the type of the vehicles and the volume of operations. The HoD of Mechanical department decides on the bus allocation to the divisions. Further, at the Divisional level, the Divisional Controller decides about the routing of the buses for various schedules. The type of routes, vintage of the vehicles, addition of the new routes and profits are the main parameters for the bus allocation to the depots. Though, depot managers may propose routes, it is mandatory for them to run the vehicles as per the schedules ordered by the divisional controller. The Divisional Controller coordinates with the Depot Manager as well as the officers for effective utilization of the fleet.



In the light of the above, if we study the span of control, the Central Office has different heads for different departments and the head of the departments directly interact with the concerned officers of the divisions. Even though the Divisional Controller is accountable for the divisional performance, in practice, the department heads at the divisional office level are accountable to the Central Office. While the performance of the Depot Managers is reviewed monthly at the division level, in order to monitor and control the poor performance if any.

The vigilance wing at the Divisional Office level directly reports to the Director and MD who cross-check the revenue realisations and other procedures which in turn reinforce the process of revenue realisation on track. It is also observed that in the year 2007-08, the number of cases reported in comparison to the previous years is very high. However, the rude behaviour has been decreased among the working personnel which is a positive sign.

## **2.4 Roles of the Depot Employees**

The Depot Manager is responsible for daily administration and is empowered to direct the depot employees Job assignment to the employees inside the depot is done by the Depot Manager. There are no fixed schedules to be operated by the Depot Manager. The mix of express and ordinary schedules is dependent on the local requirement.

### *Traffic Inspectors*

They look after the duty allocation for conductors and drivers. They maintain the attendance and allocate leave. They operate the schedules as per the target given to the depot. The traffic inspectors are also responsible to achieve the earning target given to the Depot.

### *Drivers*

They are monitored for the timely arrival as per the scheduled timings, accident free driving and for diesel consumption. The target for diesel consumption is measured in Kilometer per Litre (KMPL) of diesel. Drivers are held accountable for vehicle damage and accidents.

### *Conductors*

They would be assessed by the amount of revenue generated. The target revenue is fixed for every schedule based on pilot surveys and experiments. The Earnings per Kilometer (EPKM) is the measurement of the conductor's performance. Both the conductors and drivers need to sign a register every two days which convey their expected time of reporting and their work schedule. There would be written instructions regarding duty allocation which instruct the crew and vehicles to adhere

to the schedules.

#### *Assistant works superintendent (AWS)*

They work under the Depot Manager and are responsible for the mechanical maintenance of the buses. The AWS plan the docking schedules which depict which bus should be taken for repair at how many kilometres and is accountable for breakdowns due to mechanical failures. They monitor the vehicle damages and KMMPL achieved by the drivers. An important measurement of AWS is the number of off-road vehicles at the depot awaiting repair.

#### *Accounts Supervisor*

They look after the ticket issuing and cash collection duties. Accounts section at the depot has junior assistants who issue tickets and collect the revenue. Accounts supervisors monitor proper ticket issue and cash collection. They have the responsibility of cash collection from commercial establishments and also from pass issue. They are also responsible for proper distribution of salary and incentives to the employees.

#### *Administration Supervisor*

They monitor the absenteeism of the employees and deals with leave, status and day to day administration and routine correspondence.

#### *Store Keeper*

They maintain the receipt and consumption records of the store items. He has the responsibility of ordering important items like diesel. He has to maintain the items at optimum level so that buses do not go off road because of shortage of items.

#### *Statistical Assistant*

They look after the data maintenance and he is the one who prepares the data of the depot in prescribed format.

## **2.5 Management:**

The board of NEKRTC has been constituted with 11 Directors as on 31.3.2012. All are official directors appointed by the State Government. It is observed that:

- There are no professional directors from any of the leading transport sectors for suggesting any best practices being followed by those corporations/concerns. Hence it is suggested that the Government may take a view to appoint two professional directors in the concerned field.

- It is also observed that there is no professional chartered accountant for leading the financial matters and also to suggest the best means for either procurement of moveable and immovable assets or capturing new markets for obtaining low cost finances.
- It is also observed that the corporation is incurring more expenditure towards payment of interest on the borrowed funds either from the commercial banks or any financial institutions. This may be also taken care of from the above point.
- It is observed from the employees details as given in Annexures I to VI that the key personnel like company secretary who takes care of all the board matters and also to meet the statutory formalities and to maintain the linkage between the various Government and Non-Government Departments.
- It is also viewed that the other key personnel as given below remains vacant:
  - Chief Traffic Manager
  - Chief Law Officer
  - Controller Stores and Purchases
  - Senior Divisional Controller
  - Chief Personnel Manager
  - Principal
  - Deputy Chief Mechanical Engineer
  - Deputy Chief Accounts Officer
  - Deputy Chief Traffic Manager
  - Chief Statistical Officer

This is effecting performance of the corporation. Hence, steps may be taken to fill-up the above posts.

Apart from the above, it is also observed that some of the line personnel are also vacant for which effective measures may be taken for filling up this gap.

It is also observed that managing director is managing the day-in and day-out affairs of the corporation. Hence, it is suggested that a second line of authority may be created and also designated as Executive Director for managing the affairs of the corporation in the absence of first line of authority and also to reduce the burden of the Managing Director in order to concentrate on more effective measures for improving the productivity of the corporation.

## **2.6 Performance Evaluation**

Performance evaluation is an important means of promoting the operational efficiency in public transport systems. Table 1 gives the performance matrix of the corporation

**2.6.1 Staff Ratio:** The total staff working in the operating divisions is 18455 as on march 31<sup>st</sup> 2013. The number of scheduled during the year are 3718 and the staff ratio per schedule is 4.9. Table 1 below gives the details of staff employed, number of schedules and the staff ratio per schedule for the period 2000-01 to 2012-13. It is clear from the table and the graphs 1&2 that the staff ratio has come down marginally over the years. It is due to the various measures like computerization, adoption of incentive measures and other welfare measures under taken by the corporation.

It is observed from the graphs 2.1&2.2 that the staff ratio which is being maintained at around 5 is satisfactory when compared to the other similar corporations in the country.

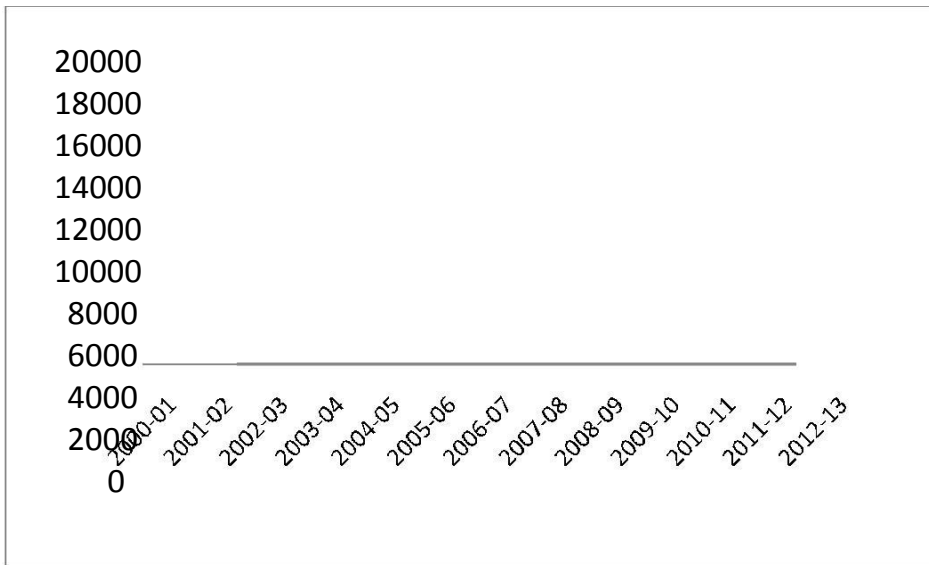
It is also observed that the line personnel working on the routes are also less when compared to the road corporations existing in the south.

**Table 2.1  
Staff Ratio**

Years	Staff Employed	Schedules	Staff Ratio per Schedule
2000-01	10005	1831	5.46
2001-02	11177	1916	5.91
2002-03	11343	2088	5.55
2003-04	10943	2216	5.21
2004-05	10639	2288	5.10
2005-06	10880	2424	4.86
2006-07	11493	2535	4.82
2007-08	12262	2601	4.88
2008-09	13793	2710	5.09
2009-10	18038	3563	5.06
2010-11	17586	3629	4.85
2011-12	18714	3736	5.01
2012-13	18455	3718	4.95

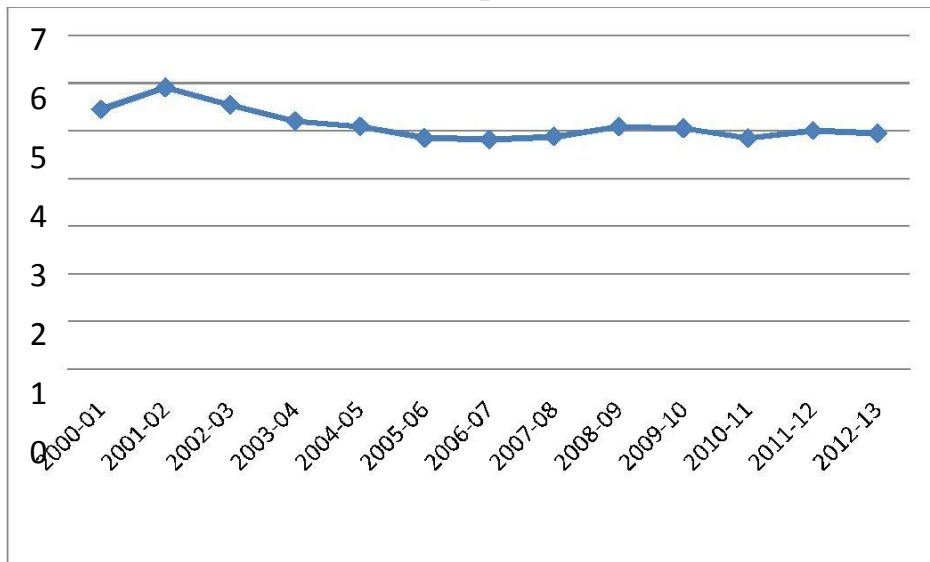
*Source: Compiled from annual administrative reports of NEKRTC for various years*

**Graph-2.1**  
**Staff and Schedules Position**



■ Staff Employed      ■ Schedules

**Graph-2.3**  
**Staff Ratio per Schedule**



◆ Staff Ratio per Schedule

**2.6.2 Age Profile of Fleets:** The North Eastern Karnataka Road Transport Corporation is into passenger transport services, the efficiency of the corporation would be benchmarked with the qualitative services that they are

providing in terms of safety and maintain punctuality. Therefore the performance of the corporation depends on the effective utilization of buses, acquiring of new buses and timely maintenance which in turn will increase revenue and control the operational costs. According to Association of State Road Transport Undertaking (ASRTU) "the normal life of a bus should be considered as six years or six and half lakh kilometres of operation whichever is earlier". However, it is understood the corporations are utilizing some of the buses up to seven and half lakh kilometers depending upon the infrastructural facilities available on those routes. On this premise, it is estimated from table 2 and graph 3 that out of the total fleet strength 38% of the vehicles are above 6 lakh kilometers and 37% are above 5 lakh kilometers during 2012-13.

From the table 2.2 the number of vehicles being run over and above six lakh kilometers have been showing a positive sign. In addition it is observed that maximum number of vehicles (789) have been added in the year 2009-10 while scrapping 367 vehicles in the same year. This shows the corporation intends to mobilize more new vehicles to support the new routes/schedules to increase the efficiency of the corporation and also to discard the old vehicles which are not cost effective. (it is better to go for a micro analysis with respect to the age/life of the buses.

**Table 2.2**

**Bus Composition**

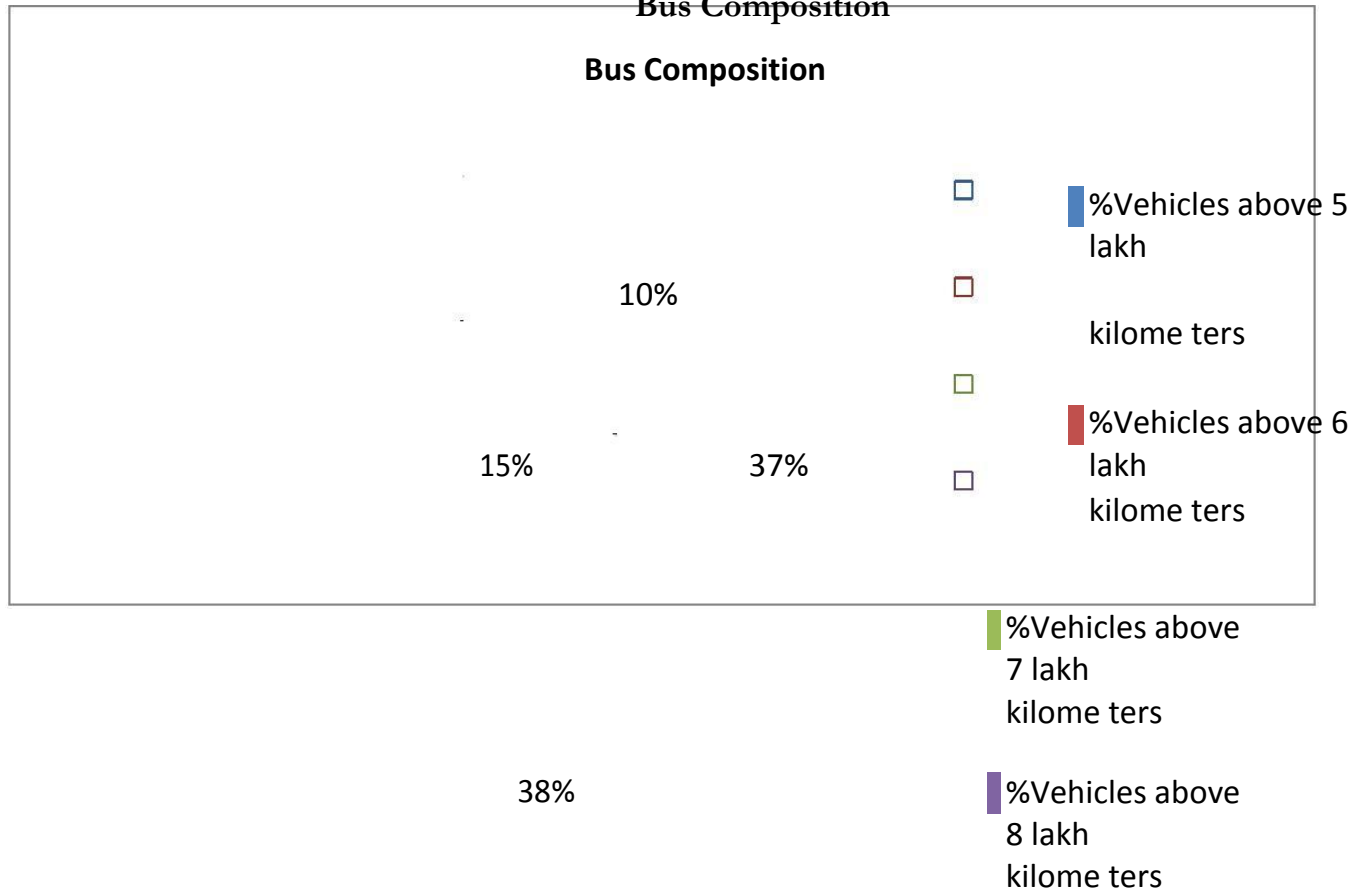
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Fleet	2049	2268	2413	2380	2586	2677	2757	2866	3899	3971	4206	4356
No. of New Vehicles Added	64	204	131	11	481	316	467	560	789	451	569	411
No. of Old Vehicles Scrapped	63	218	347	154	243	193	223	244	367	344	332	286
No. of Vehicles above 5 lakh kilometers	392 (19.13)	347 (15.30)	225 (9.32)	184 (7.73)	213 (8.24)	111 (4.15)	29 (1.05)	150 (5.23)	403 (10.34)	545 (13.72)	737 (17.52)	781 (17.93)
No. of Vehicles above 6 lakh kilometers	344 (16.79)	255 (11.24)	408 (16.91)	276 (11.60)	224 (8.66)	229 (8.55)	131 (4.75)	53 (1.85)	260 (6.67)	420 (10.58)	572 (13.60)	819 (18.80)
No. of Vehicles above 7 lakh kilometers	518 (25.28)	188 (8.29)	254 (10.53)	193 (8.11)	152 (5.88)	167 (6.24)	139 (5.04)	80 (2.79)	75 (1.92)	133 (3.35)	201 (4.78)	311 (7.14)

No. of Vehicles above 8 lakh kilometers	518 (25.28)	229 (10.10)	92 (3.81)	197 (8.28)	194 (7.50)	138 (5.16)	157 (5.69)	107 (3.73)	78 (2.00)	119 (3.00)	190 (4.52)	219 (5.03)
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(Source: Compiled from annual administrative reports of NEKRTC for various years, figures in brackets indicate percentages.)

**Graph 2.3**

**Bus Composition**



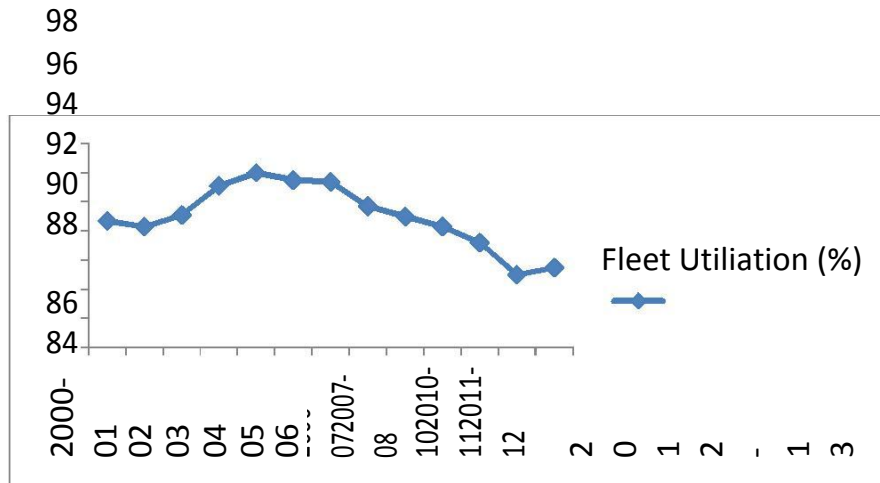
## 2.7 Operational Productivity Parameters

The common indicator of physical productivity include: (i) Fleet Utilization (ii) Fuel Efficiency (iii) Staff Productivity (iv) Occupancy Ratio.

**2.7.1 Fleet Utilization:** Fleet Utilization is the ratio of the buses on road to an average fleet held by an Undertaking. An average fleet utilization for NEKRTC is around 90% over the period from 2000-01 to 2012-13. It is clear from graph 2.4 and table 2.3 that the number of buses on road to the total strength has shown a declining trend. The reasons may be due to more breakdowns, cancellations etc.

for which the organization need to take effective measures to bridge this gap in the near future.

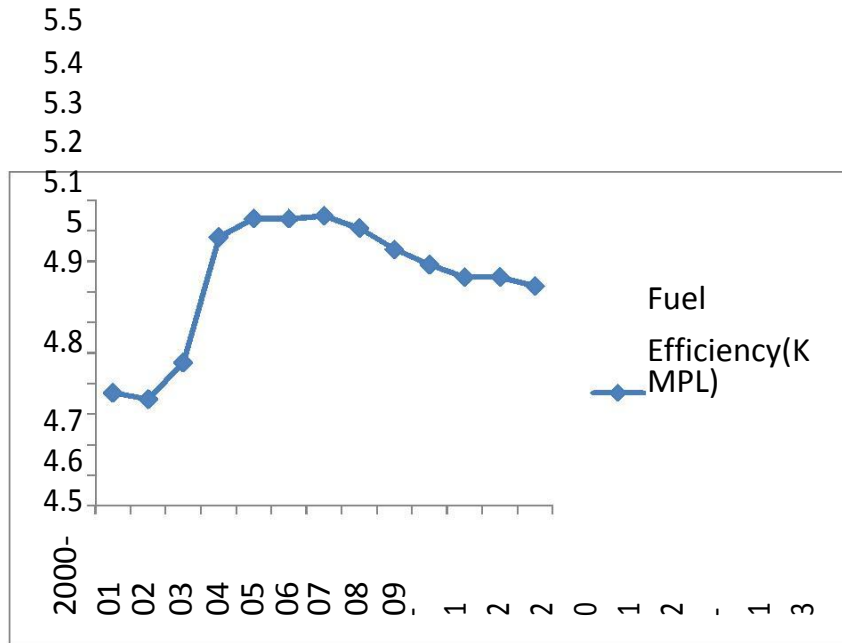
**Graph  
2.4  
Fleet Utilization  
(%)**



**2.7.3 Fuel Efficiency:** Average kilometer per liter of fuel reflects the fuel efficiency in operation. The fuel efficiency of NEKRTC over the period for ten years from 2000-01 to 2012-13 is given in graph 5. It is clear that the fuel efficiency has improved from 4.8 in the year 2000-01 to 5.4 KMPL in the year 2003-04 which has been maintained for a period of 5 years i.e., up to 2007-08. This has been declined from the year 2008-09 to 2012-13 to 5.2 KMPL. However, comparing to the other corporation especially in south the result is satisfactory

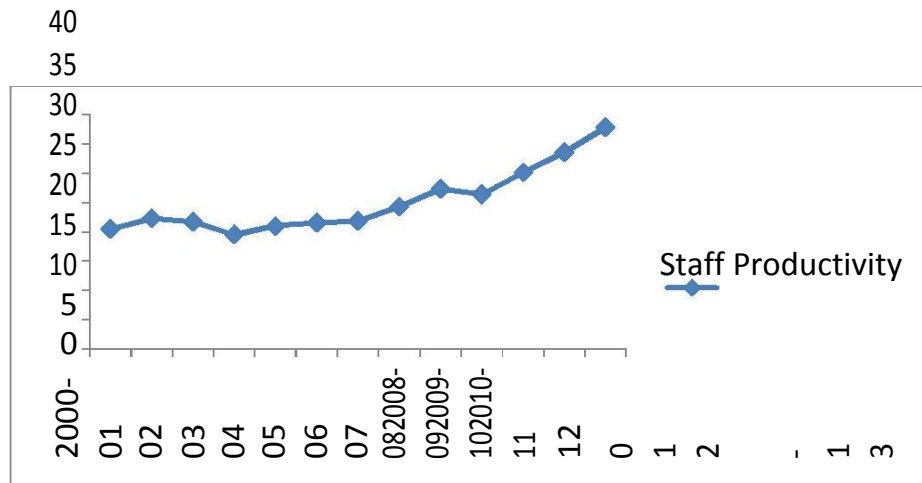


**Graph 2.5**  
**Fuel Efficiency**  
**(KMPL)**



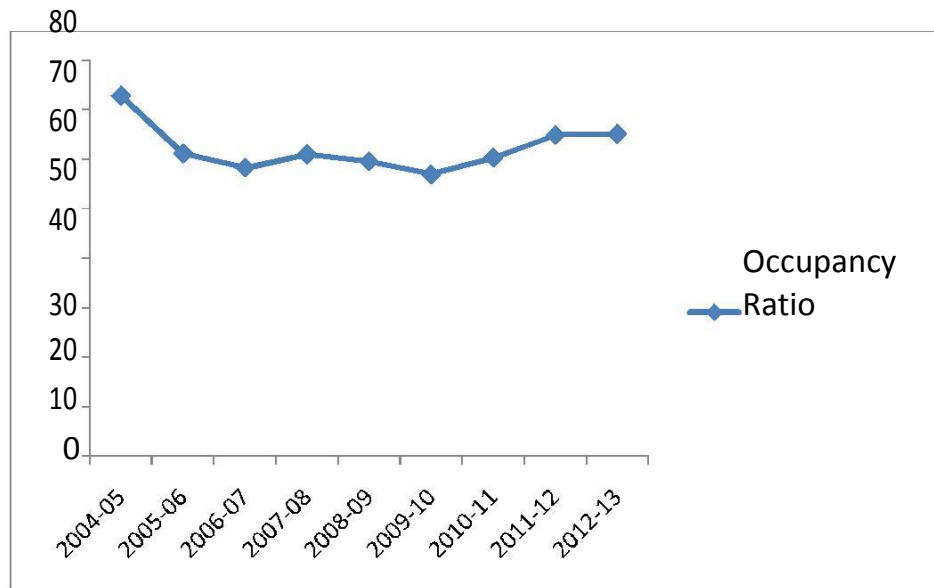
**2.7.4 Staff Productivity:** It is measured by an average revenue earnings km performed per staff per day. The average staff productivity of NEKRTC over the study period has shown a significant improvement which is a positive sign for achieving the set objectives in the coming years. But, the revenue earned is not sufficient to meet all the costs of the corporation in order to make it turnaround from red to green. Hence, the targets are to be set showing an higher growth of productivity and also to cut down the unproductive costs. The major task of the corporation is to identify wasteful expenditure by improving the performance rating of working personnel. This is more needed on the line personnel activities rather than staff functioning.

**Graph 2.6  
Staff  
Productivity**



**2.7.5 Occupancy ratio:** Occupancy ratio reflects the passenger kilometers performed to passenger kilometers offered. It is clear from graph 7 that the occupancy ratio was slightly low during 2006-07 and 2008-09 but on an average it is around 60 per cent. In general the corporation is loosing so much revenue because of the poor occupancy ratio. It is observed that schedules pertaining to rural areas are unable to mob passengers. This is due to the non frequency of bus timings, bad roads and also seasonal effects.

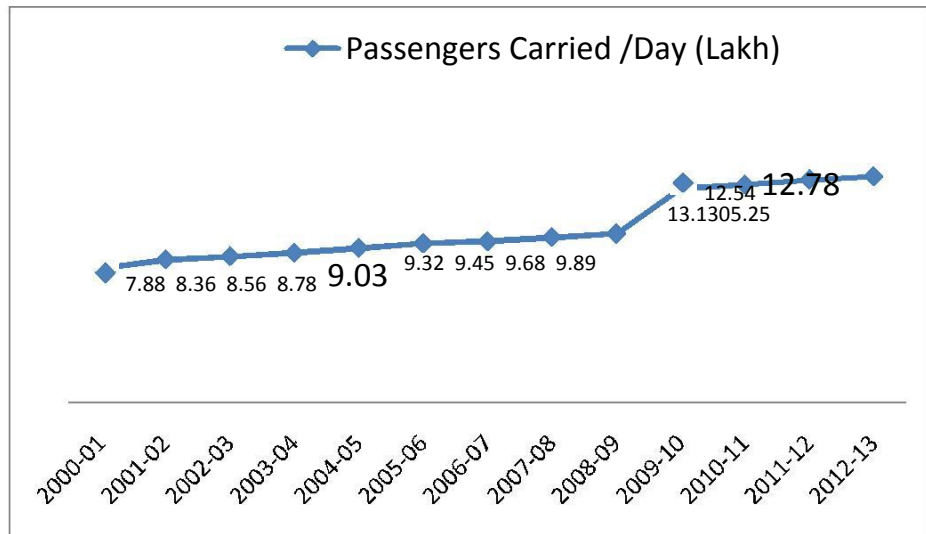
**Graph 2.7**  
**Occupancy Ratio**



**2.7.6 Passenger Carried:** the total number of passengers carried has shown a significant improvement over the year and it is 13.25 lakh passenger per day during 2012-13 where as it was 7.88 lakh passenger per day during 2000-01. Even then, the corporation is running under loss due to the following factors:

- The fuel cost is increasing day by day which is uncertain.
- The age of the buses is more in certain routes which is making operational costs more.
- Due to part cancellations because of non availability of crew staff. The details regarding part cancellation are given in table 2.5 and graph 2.10
- Due to break downs like mechanical, electrical and other obvious reasons like maintenance etc.

**Graph 2.8**  
**Passengers Carried /Day (Lakh)**



**Table 2.3**  
**Operational Productivity Indicators**

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Avg. No. of Buses held in the Operating Divisions	1992.7	2241.9	2377	2386	2435.8	2558.7	2650	2830.5	3716.2	3772.5	3991.8	4058.2
Avg. No. of Buses On-road	1841.7	2087.4	2261.1	2290.6	2327.1	2442	2488.9	2632.2	3431.3	3441.4	3554.5	3630.9
Fleet Utilition (%)	92.3	93.1	95.1	96	95.5	95.4	93.7	93	92.3	91.2	89	89.5
Vehicle Productivity (Ps)	1070	1126.4	1161.9	1228.6	1362.9	1432.1	1524	1553.6	1565.3	1788.1	2040.7	2272
Fuel Efficiency(KMPL)	4.85	4.97	5.38	5.44	5.44	5.45	5.41	5.34	5.29	5.25	5.25	5.22
Paisa/Effective KM	1184	1208	1225	1308	1464	1549	1660	1701	1729	2012	2195	2525.2
Eff. KMs per Emp per day	52.81	55.53	62.63	62.07	67.87	70.71	68.11	62.06	65.41	66.6	65.2	66.63
Staff Productivity	22.42	21.754	19.559	21.073	21.570	21.906	24.372	27.409	26.433	30.210	33.665	37.898
Passenger KMS Operated (Crores)				1047.5	942.32	1071.2	1061.5	1078.3	1187.2	1420.7	1572.1	1549.0
				5		5	1	9	6		6	8

Passenger KMS Scheduled (Crores)				1000.4 6	891.39	1030.8 4	1006	1034.0 2	1159.9 2	1374.3	1536.0 5	1549.0 8
Occupancy Ratio				72.81	61.2	58.3	61	59.6	57	60.4	64.9	65.1
Passengers Carried /Day (Lakh)	7.88	8.36	8.56	8.78	9.03	9.32	9.45	9.68	9.89	12.54	12.78	13.05

(Source: Compiled from annual administrative reports of NEKRTC for various years)

## 2.8 Dead Kilometers

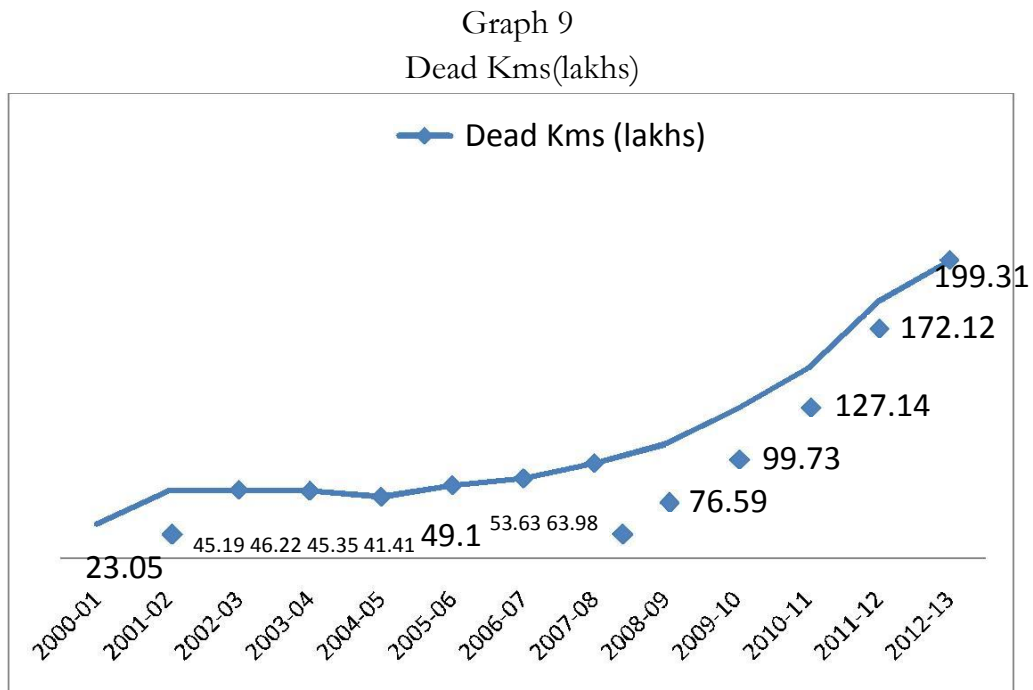
Dead kilometers refer to the distance traveled by the buses from various depots/workshops to the bus station for which no revenue is earned. It equals the gross kilometers minus the effective kilometers. Table 4 and graph 9 analysed the dead kilometers of NEKRTs for the period 2000-01 to 2012-13. It is observed that there is a continuous increase in these kilometers which is a major loss to the corporation. As a result of which the total loss has also increased over the years.

- It was informed that the corporation used to have direct linkage with the oil companies for getting the diesel in order to fill up the buses at the appropriate places without losing any ineffective kilometers. Hence, the corporation has to think of for a major change for a policy decision to review the above problem.
- It is felt that the corporation may approach the state government for coordinating this activity either with the central government or directly with the oil companies

**Table 2.4**  
**Dead Kilometers**

S.No	Year	Gross KMS operated (Laks)	Effective KMS (Lakhs)	Dead Kms (lakhs)	Revenue per KM (Rs)	Total Loss (Lakhs)
1	2000-01	1077.72	1054.67	23.05	10.79	248.71
2	2001-02	2184.49	2182.09	45.19	11.84	535.05
3	2002-03	2347.15	2201.03	46.22	12.08	558.338
4	2003-04	2691.74	2646.39	45.35	12.25	555.538
5	2004-05	2684.69	2643.28	41.41	13.08	541.643
6	2005-06	2744.42	2695.31	49.1	14.64	718.824
7	2006-07	3020.66	2966.33	53.63	15.49	830.729
8	2007-08	3120.46	3056.48	63.98	16.6	1062.07
9	2008-09	3373.86	3297.29	76.59	17.01	1302.8
10	2009-10	3936.03	3836.3	99.73	17.29	1724.33
11	2010-11	4422.08	4294.94	127.14	20.12	2558.06
12	2011-12	4637.98	4465.86	172.12	21.95	3778.03
13	2012-13	4687.75	4488.44	199.31	25.25	5032.58

(Source: Compiled from annual administrative reports of NEKRTC for various years)



## 2.9 Part Cancellation of Scheduled Kilometers

The following table 2.5 and graph 2.10 reveals the scheduled kilometers and cancelled kilometers either due to controllable or uncontrollable factors. It is observed that over the years the percentage of cancelled kilometers to scheduled kilometers has come down which is quite impressive.

In order to reduce the part cancellations it is suggested that a suitable incentive system may be designed to improve the morale of the crew staff. In this regard positive financial system may be effected.

If feel necessary threat also may be created for not attending the duty at the schedule time for carrying on the fleet. On the other side, financial incentive system shall cover all the major attractions for reducing the part cancellations.

It was informed that spare crew are available. But they were to be informed after knowing the concerned crew have not attended the duty for taking up the schedule. Hence there is a time gap between these two availabilities.

In view of this, if the concerned crew have been heavily penalized for not informing about his absence prior either by one/two days. There by effective planning can be done

**Table 2.5**

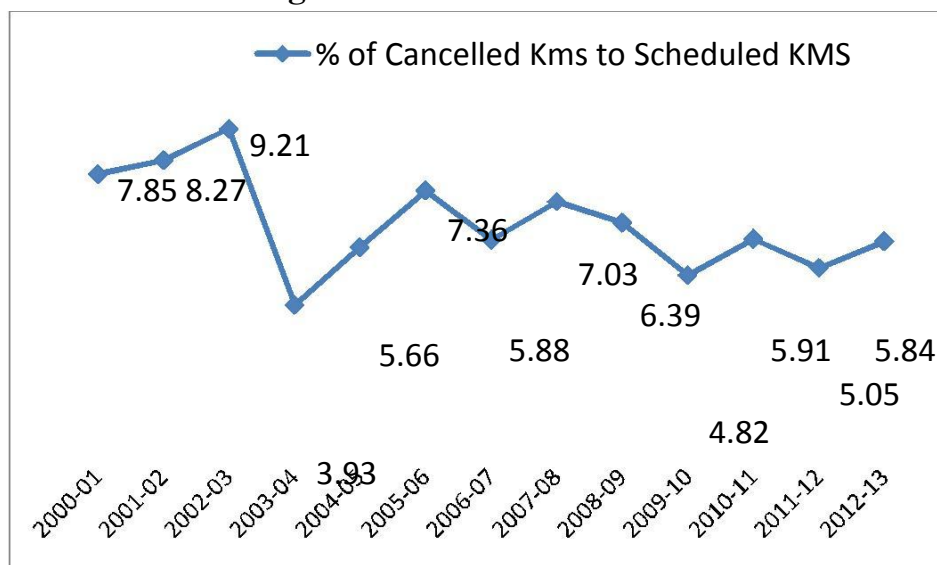
**Part Cancellation of Scheduled Kilometers**

S.No	Year	Scheduled KMS	Cancelled KMS	% of Cancelled Kms to Scheduled KMS
1	2000-01	1123	88.21	7.85
2	2001-02	2341	193.6	8.27
3	2002-03	2549.51	234.78	9.21
4	2003-04	2688.2	105.7	3.93
5	2004-05	2767.68	156.74	5.66
6	2005-06	2849.29	209.6	7.36
7	2006-07	3082.62	181.23	5.88
8	2007-08	3225.15	226.58	7.03
9	2008-09	3438.74	219.87	6.39
10	2009-10	3926.73	189.25	4.82
11	2010-11	4439.94	262.32	5.91
12	2011-12	4570.84	230.73	5.05
13	2012-13	4651.24	271.44	5.84

(Source: Compiled from annual administrative reports of NEKRTC for various years)

**Graph 2.10**

**Percentage of Cancelled Kms to Scheduled Kms**



## 2.10 Load Factor

The load factor represent the percentage of seating capacity offered to seating capacity actually occupied. The table 2.6 and graph 2.11 explains about the load factor over the years 2000-01 to 2012-13 which shows that the load factor has shown a highly fluctuating trend between 65 percent to 72.3 per cent. It means that the capacity can be improved to a tune of 85% by increasing the number of trips and providing more facilities to passengers exclusively to women and old age group.

In order to improve the load factor at least in some traffic routes a survey could be done for identifying the regular passengers.

In addition, the frequency of the buses could be enhanced at peak hours depending on the directions of path flow so that revenue may be increased.

More awareness shall be created giving all the details of the frequencies of the buses availability at the important locations. This shall be adhered for creating confidence levels of the passengers.

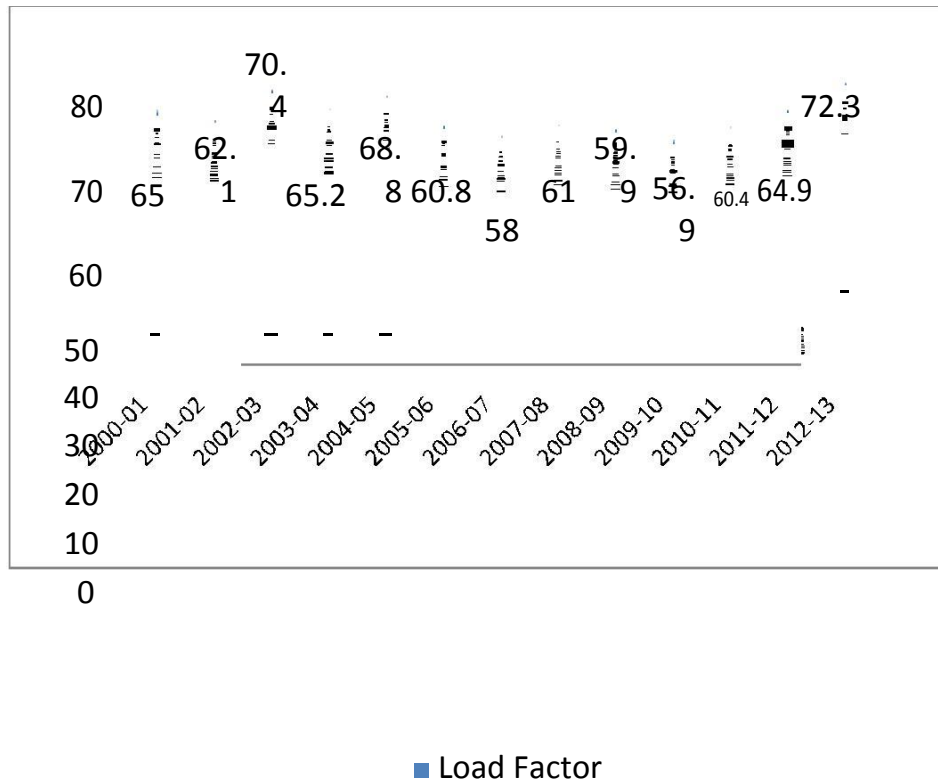
**Table 2.6**  
**Load Factor**

Year	Load Factor
2000-01	65
2001-02	62.1
2002-03	70.4
2003-04	65.2
2004-05	68.8
2005-06	60.8
2006-07	58
2007-08	61
2008-09	59.9
2009-10	56.9
2010-11	60.4
2011-12	64.9
2012-13	72.3

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*



**Graph 2.11**  
**Load Factor**



### 2.11 Quality of Service

The quality of services of NEKRTC is analysed basing on four parameters viz., breakdowns per 10000 KMS, accident per Lakh KMS, Percentage Punctuality, public complaints. These parameters are analyzed in table 2.7 and graph 2.12. As far as number of breakdowns are concerned that have drastically reduced over the years. But in case of accidents has increased during the last few years which need to be taken care. The public complaints have also reduced which shows that the corporation is working with passenger centric activities.

**Table 2.7**  
**Quality of Services**

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Quality of Services</b>												
Breakdown per 10000 KMS	0.23	0.31	0.29	0.22	0.22	0.15	0.11	0.1	0.1	0.11	0.11	0.1
Accident per Lakh KMS	0.12	0.14	0.14	0.11	0.14	0.15	0.16	0.14	0.15	0.13	0.12	0.12
Percentage Punctuality												
Departures	86.8	84.8	82.3	82.3	82.8	90.3	91.9	92.3	89.2	90.7	89.1	90.7
Arrivals	89.5	87.7	84.9	82.9	85	92.3	93.3	93.8	92.7	93.6	91.7	91.8
Public Complaints/Lakh Passengers	0.02	0.01	0.06	0.02	0.1	0.1	0.09	0.09	0.09	0.08	0.07	0.09

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*

### Chapter 3

#### **Financial Performance Analysis of North Eastern Karnataka Road Transport Corporation**

##### **1.4 Introduction**

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Simply financial statements that are given in annual accounts do not reveal all the information related to the financial operations of a firm, but they furnish some extremely useful information, which highlights two important factors profitability and financial soundness. Thus analysis of financial statements is an important aid to financial performance analysis. Financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the business.

The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm's position and performance. The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second is to arrange the information in a way to highlight significant relationships. The final is interpretation and drawing of inferences and conclusions. In short, financial performance analysis is the process of selection, relation, and evaluation.

The analysis is being carried out from various dimensions viz., traffic and non-traffic revenue, profit and loss analysis comparing with the cost components of the corporation by analyzing the operating as well as non-operating expenses. Further, an analysis of working capital trend, current assets trend and current liability trend has also been carried out in the present study

### **2.3 Traffic and Non-Traffic Revenue**

Table 3.1 presents the break-up of the total revenue of NEKRTC for a period of seven years i.e., from 2005-06 to 2012-13. As evident from the table the total revenue of the Corporation which was Rs. 39,470.59 lakhs during 2005-06 increased to Rs. 1,13,340.6 lakhs during 2012-13. The break-up of the total revenue clearly shows that the traffic revenue is the dominant component whereas the non-traffic revenue assumes a minor share. It is as evident from the fact that, over the years under review the proportion of traffic revenue in the total revenue of the Corporation ranged between 93.07 percent (2005-06) to 89.97 percent (2012-13).

**Table 3.1**  
**Breakup of Total Revenue of NERTC During 2005-06 to 2012-13**  
*(Rs. In Lakhs)*

Years	Traffic Revenue	Non-Traffic Revenue	Total Revenue	% of Traffic Revenue in total revenue
2005-06	36735.18	2735.41	39470.59	93.07
2006-07	42480.85	3473.2	45954.05	92.44
2007-08	46580.02	4158.32	50738.34	91.80
2008-09	51225.45	4881.52	56106.97	91.30
2009-10	60049.17	6285.56	66334.73	90.52
2010-11	76795.82	9642.33	86438.15	88.84
2011-12	91133.81	6434.14	97567.95	92.96
2012-13	101975.69	11364.91	113340.6	89.97

*Source: Compiled from annual administrative reports of NEKRTC for various years*

#### **Net Profit/Net Loss and Accumulated Profit/Loss**

Table 3.2 presents the amount of Net Profit/Loss and Accumulated Profit/Losses of the Corporation during 2005-06 to 2012-13. As evident from the table the total amount of net profit/loss and accumulated profit/loss of the Corporation was Rs.-2778.88 lakhs and Rs.21886 lakhs respectively during 2005-06. The accumulated Loss has been increased incessantly to stand at Rs.4231.8 lakhs by 2012-13. In case of net loss during the succeeding two years i.e., 2007-08 and 2008-09 and 2011-12 has experienced a down ward trend. But in the year 2012-13 it has registered at Rs.-2092.65 lakhs.

**Table 3.2**  
**Net Profit/Net Loss and Accumulated Profit/Loss**  
*(Rs. In Lakhs)*

<b>Years</b>	<b>Net Loss</b>	<b>Accumulated Loss</b>
2005-06	-2778.88	21886
2006-07	-2952.58	24839
2007-08	-1595.8	26434
2008-09	-2865.00	29299
2009-10	-3385.65	39206
2010-11	-1205.19	40511
2011-12	-1807.16	42318
2012-13	-2092.65	44111

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*

## 2.4 Working Results of the Corporation

Table 3.3 presents the working results of NEKRTC during 2005-06 to 2012-13. As evident from the table the total revenue of the Corporation which was Rs. 39470.59 lakhs during 2005-06 consistently increased and stood at Rs. 113340.6 lakhs during 2012-13 experiencing a Compound annual growth rate of 0.16 percent and on the other hand, the total expenditure of the Corporation recorded a growth rate of 3.39 percent, during the period under reference, increasing from Rs. 42249.47 lakhs during 2005-06 to Rs. 115433.25 lakhs during 2012-13. It can be seen from the table before income-tax the Corporation recorded a marked and continuous net loss during all the years under reference Over the period under review the Corporation recorded a net loss ranging from Rs. -2778.88 lakhs (2005-06) to Rs. -2092.65 lakhs (2012-13). Thus, the sustained amount of loss incurred by the Corporation reflects the situation of crisis. In addition the scenario stands as the warning signal of the Corporation and it can be a burden on the state exchequer. But a positive hope has observed with regards to Total Return on Capital Employed which has become positive over the last three years.

**Table 3.3**  
**Working Results of NEKRTC**

*(Rs. In Lakhs)*

Years	Gross Revenue	Total Working Expenditure	Net Profit/Loss	Net Worth	Return on Capital	% Return on Capital
2005-06	39470.59	42249.47	-2778.88	-9163	-2494.68	-73.64
2006-07	45954.05	48906.63	-2952.58	-11736	-2344.44	-82.44
2007-08	50738.34	52334.14	-1595.80	-10016	-676.53	-63.23
2008-09	56106.97	58971.97	-2865.00	-11228	-1504.76	117.67
2009-10	66334.73	69720.4	-3385.67	-14899	-1985.67	-78.67
2010-11	86438.15	87643.34	-1205.19	-13061	114.80	2.87
2011-12	97567.95	99842.75	-1807.16	-12393	43.36	0.89
2012-13	113340.6	115433.25	-2092.65	-12989	547.57	16.29
<b>CAGR(%)</b>	<b>0.16</b>	<b>3.95</b>	<b>-3.54</b>	<b>-3.34</b>	<b>2.14</b>	<b>0.90</b>

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*

Table 3.4 shows there is an increase in the gross revenue turnover over the period of ten years i.e, 2012-13. However, on the other side total working expenditure (including depreciation, interest and bonus) has also been increased at an alarming rate. When Compound Annual Growth Rate (CAGR) is worked out revenue has been increased at 0.16% while expenditure has been increased at 3.95%. this led to heavy losses for the above period at a CAGR of -3.54%. Due to this the net worth has become negative.

Return on capital has shown a positive sign from the year 2010-11 to 2012-13 for which the CAGR stood at 2.14% and the percentage has been worked out to .90%. however, this is not sufficient for sustaining a positive growth of the corporation in the years to come. Hence, ways and means need be discussed with the appropriate personnel for improving the productivity.

**Table 3.4**  
**Total Cost Composition**

Years	and other costs	ntennance	ubricants	Welfare Expenses	Expenses	gExpenses	before taxes	taxes on passenger vehicles	Depreciation	Total	after taxes	non-operating expenses
2005-06	16868.71	<b>3982.32</b>	11747.42	<b>2011.01</b>	<b>2149.02</b>	<b>36758.48</b>	2712.11	2819.54	1539.36	4358.9	-1646.79	1132.09
2006-07	17067.3	<b>4500.8</b>	15595.76	<b>2268.18</b>	<b>2347.49</b>	<b>41779.53</b>	4174.52	3193.55	2360.44	5553.99	-1379.47	2983.34
2007-08	14729.92	<b>5415.00</b>	17179.59	<b>3280.78</b>	<b>2886.76</b>	<b>43492.05</b>	7246.29	3481.76	3264.56	6746.26	500.03	1757.46
2008-09	12697.61	<b>6378.19</b>	23262.34	<b>2672.74</b>	<b>3356.37</b>	<b>48367.25</b>	7739.72	3092.56	4953.17	8045.73	-306.01	4932.88
2009-10	14227.54	<b>7737.17</b>	27623.3	<b>3477.89</b>	<b>4205.24</b>	<b>57271.14</b>	9063.59	3250.92	6492.81	9743.73	-680.14	2593.11
2010-11	17483.85	<b>10383.44</b>	35551.6	<b>4497.55</b>	<b>5091.92</b>	<b>73008.36</b>	13429.79	4009.61	7301.81	11311.42	2118.37	2900.15
2011-12	20507.69	<b>11935.75</b>	40478.31	<b>5263.38</b>	<b>5814.36</b>	<b>83999.49</b>	14036.1	4808.99	7535.96	12344.95	1691.15	3497.33
2012-13	25833.87	<b>13113.91</b>	44486.19	<b>6974.87</b>	<b>7151.79</b>	<b>97560.63</b>	15779.98	5343.32	7806.3	13149.62	2630.36	3589.14

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*

2.5 From the table 3.4 the following are the observations:

2.6 Salaries and allowances of driver/conductors have been on the increasing side i.e., 17056.13 lakhs during the year 2011-12 which is a major component of operating expenses. (when the total operating expenses are representing at Rs.4.59 per kilometer this component is representing at Rs.3.82 per kilometer). The total employee cost is Rs.4.53 out of the total operating expenses of Rs.4.59 including an overtime component of Rs.0.44 per kilometer.

2.7 Hence, it is suggested that suitable alternative system may be incorporated for reducing the above costs. This can be done under collective bargaining system with the representatives of the union.

2.8 It is apparent that the fuel, oil and lubricants are working out to Rs.9.06 out of the total cumulative operating expenses of Rs. 21.57. In view of this, as recommended earlier either the corporation has to workout for direct supply of fuel from the oil companies or an alternative reduction of taxes from State Government.

2.9 Every body is aware of the fact that the fuel prices are increasing day by day abnormally effecting the performance of the corporation. It can be viewed from the Graph 3.1.& 3.2 that the fuel cost is contributing to 35% to 45% out of the total expenses incurred per kilometer rate.



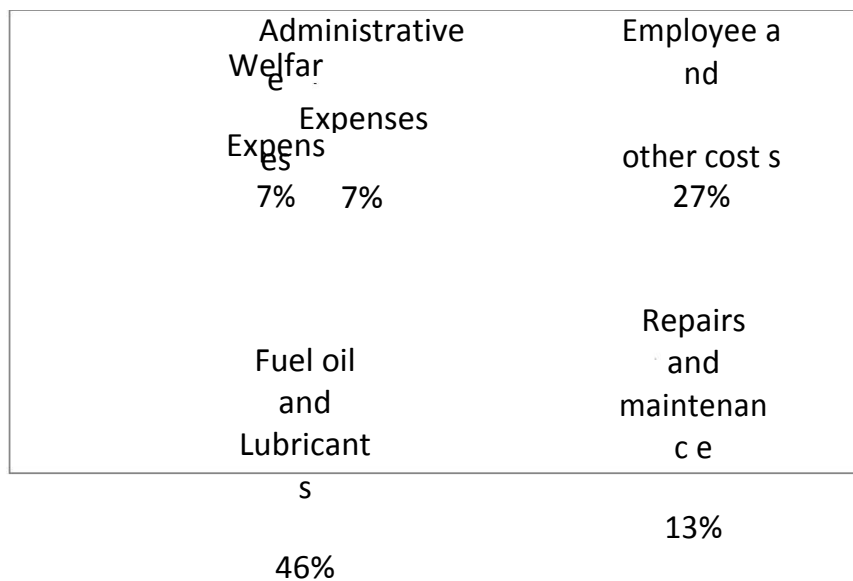
2.6 In addition to the fuel cost, the staff cost is also contributing equal to that of fuel price which is indicated in the above graph.

2.7 Further it is observed that the material consumption costs are at a marginal increase i.e., Rs.7670 lakhs during the year 2011-12 which is working out Rs .1.72 out of the total operating expenses of Rs.21.57. efforts may be put in for analyzing the unproductive elements/spares by working out in detail (several analyses like ABC, FSN,VED and GOLF may be carried out).

- The operating expenses are steadily increasing and the non-operating expenses are much less than operating expenses. (Graph 3.1)
- The administrative exp enses can be reduced to certain extent by minimizing general office expenses which have gone up from Rs.560 lakhs during 2011-12 to Rs.727.77 lakhs during 2012-13. The remaining administrative expenses are in tune with the administration.
- Non-operating expens es were more in 2005-06 compared to 2004-05 because during 2005-06 depreciation of other assets, property insurance fund and third party risk insurance fund were paid.

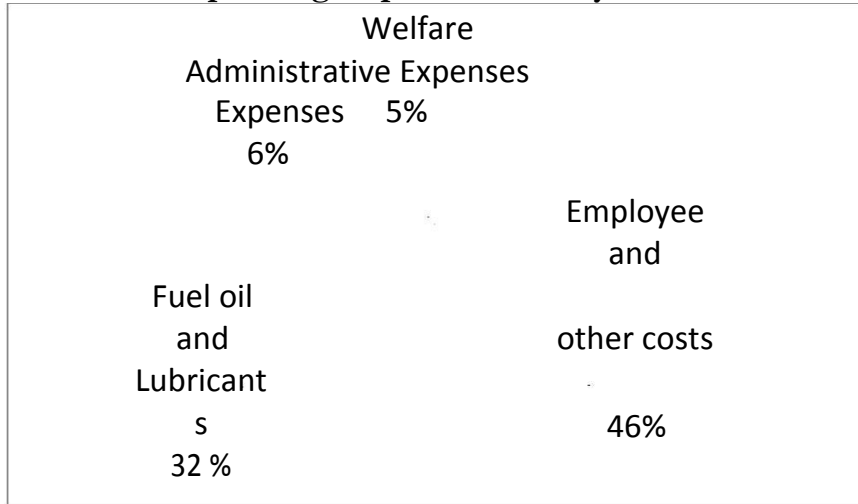
2.7 Working results in detail have been given in the following tables and graphs 3.2 &3.3

**Graph 3.1  
Operating Expenses for the year 2012-13**



**Graph 3.2**

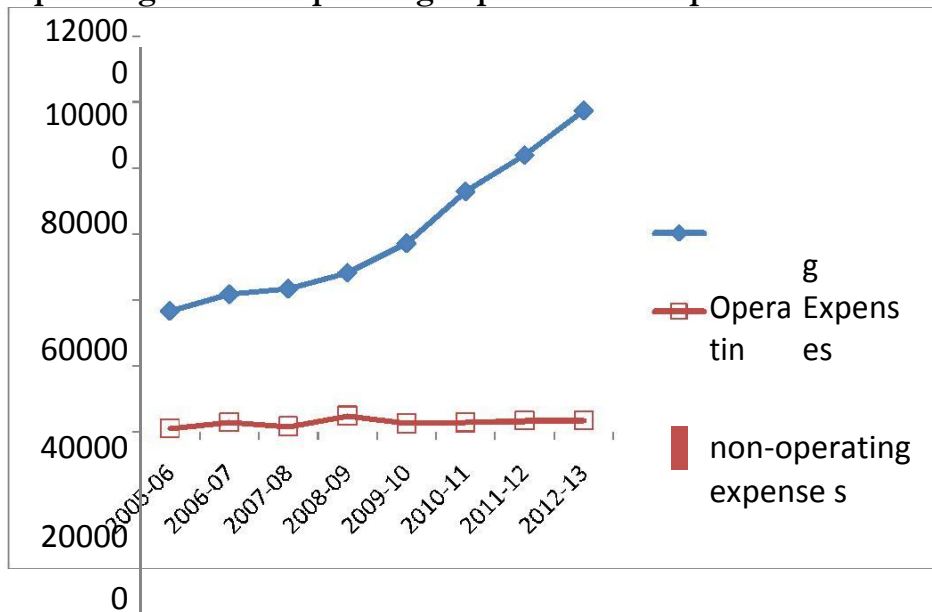
### Operating Expenses for the year 2005-06



Repairs and maintenance 11%

### Graph 3.3

Operating and non operating expenses for the period 2000-01 to 2012-13



### 2.6.2 General and Administration Expenses of the Corporation

Table 3.4 presents the scenario of general and administration expenses and the composition during 2005-06 to 2012-13. As evident from the table the total amount of general and administration expenses of the Corporation which was Rs. 2149.02 lakhs during 2000-01 consistently increased over the years and stood at Rs. 7151.79 lakhs during 2012-13.

A compositional analysis of the general and administration expenses further reveals that salaries & Allowances of staff, general office expenses followed by maintenance of departmental vehicles occupied a major portion.

### 2.6.3 Welfare and Superannuation Charges

Table- 3.4 presents the welfare and superannuation charges of NEKRTC during 2005-06 to 2012-13. It could be seen from the table, the total amount of the welfare and superannuation charges incurred by the Corporation was Rs. **2011.01** lakhs during 2005-06 which increased to Rs. **6974.87** lakhs during 2012-13.

### 2.8 Repairs and Maintenance charges of the Corporation

Table- 3.4 presents the repairs and maintenance charges of the Corporation As evident from the table the total amount of repairs and maintenance charges of the Corporation which was Rs. **3982.32** lakhs during 2005-06 went up to Rs. **13113.91** lakhs during 2012-13 The compositional analysis of the repairs and maintenance charges of the Corporation further reveals that the material consumption constituted a sizeable proportion.

Table 3.5 reveals that the government has retained a total amount of 35143.68 lakhs towards the MV Tax in the subsidy to be paid to the corporation. This subsidy is towards compensation of bus passes issued to the concerned by the corporation. In view of the above the losses of the corporation are disquieting.

It is understood that government has issued a G.O authorizing the corporation to retain the MV Tax within the corporation for adjusting the funds towards the losses. Now the corporation may request for implementing the G.O effectively.

Table 3.5

				Cash				Cash	
--	--	--	--	------	--	--	--	------	--

Year	Profit/Loss	Depreciation	Repayment of Loan	Loss (cash+de p- Repayment of Loan)	M.V. Tax Details			Loss - M.V Tax Retained	Subsidy Received
					M.V. Tax	Adj in Subsidy	Retained		
OB Trs from KSRTC	-8350.88								
2000-01	-2118.42	1138.74	639.99	-1619.67	649.2	0	649.2	-970.47	285.31
2001-02	-1818.7	2642.87	1447.72	-623.55	1323.37	1210	113.37	-510.18	543
2002-03	-1498.08	2147.44	1516.39	-867.03	1529.78	0	1529.78	662.75	1283
2003-04	-1290.34	1803.78	1470.52	-957.08	2102.48	0	2102.48	1145.4	890.03
2004-05	-4030.78	1433.6	1559.4	-4156.58	2452.15	0	2452.15	-1704.43	1120.67
2005-06	-2778.88	1689.62	1663.94	-2753.2	2819.54	0	2819.54	66.34	1246.46
2006-07	-2952.58	2553.71	1803.79	-2202.66	3165.56	0	3165.56	962.9	2105.56
2007-08	-1595.8	3499.85	1876.29	27.76	3453.37	0	3453.37	3481.13	2704.52
2008-09	-2865	5261.06	2558.48	-162.42	3058.45	0	3058.45	2896.03	1104.11
2009-10	-3385.67	6932.67	2919.93	627.07	3220.11	0	3220.11	3847.18	1840.72
2010-11	-1205.19	7851.8	4481.57	2165.04	3979.43	1086.71	2892.72	5057.76	3627.77
2011-12	-1807.16	7989.86	3694.74	2487.96	4759.17	0	4759.17	7247.13	4221.47
2012-13	-2092.65	8276.86	3710.31	2473.9	5309.63	381.85	4927.78	7401.68	8836.33
<b>Total</b>	<b>-37790.13</b>	<b>53221.86</b>	<b>29343.07</b>	<b>-5560.46</b>	<b>37822.2</b>	<b>2678.56</b>	<b>35143.68</b>	<b>29583.22</b>	<b>29808.95</b>

**M. V. Tax Details**

*(Source: Compiled from annual administrative reports of NEKRTC for various years)*

### 2.7.2 An Analysis of Working Capital Trend in NEKRTC

The working capital trend analysis represents a picture of variations in current assets, current liabilities and working capital of NEKRTC over a period of time. Trend Analysis is a tool of financial analysis where changes are compared to the base year, keeping the base year as 100. Such an analysis helps us to study upward / downward trends in current assets and current liabilities and its effect on working capital. The following analysis was carried out to find out working capital trend in NEKRTC.

### 2.7.4 Debt Equity Ratio

Table 3.6 explains about the debt-equity ratio of the corporation. As a whole, from the Total Debt - Equity Ratio, it may be concluded that, in NEKRTC, the owners' (state and central government) contribution was more than lenders' till 2010-11. It was lesser during the last two years. Increasing trend of ratio indicates that, the NEKRTC has been depending more and more on borrowed capital over the time. The average Total Debt-Equity Ratio of 0.74:1 implies that for every one rupee of owner's capital 74 paise of outside liability, Margin of safety to the creditors is an average.

**Table 3.6**  
**Debt-Equity Ratio**

Year	Debt lakhs	Equity lakhs	Ratio
2005-06	6535.8	17056.96	0.38:1
2006-07	8696.37	16872.2	0.52:1
2007-08	10926.66	18767.53	0.58:1
2008-09	12877.58	29848.33	0.43:1
2009-10	18497.47	20423.39	0.91:1
2010-11	17036.32	22948.39	0.74:1
2011-12	17771.91	13112.39	1.36:1
2012-13	14061.6	13112.39	1.07:1

### 3.6 1. Current Assets Trend Analysis

Table 3.7 and graph 3.4 reveal that current assets in NEKRTC include four main components. From above data, it is apparent that stores and inventories (stock in hand, stores and loose parts, material adjustment ledger, work in progress etc.) have the minimum share of 24% in the current assets of the corporation, whereas, sundry debtors (income earned but not received, interest due but not received, debts from other corporations etc.) have the biggest contribution of around 51% to the current a

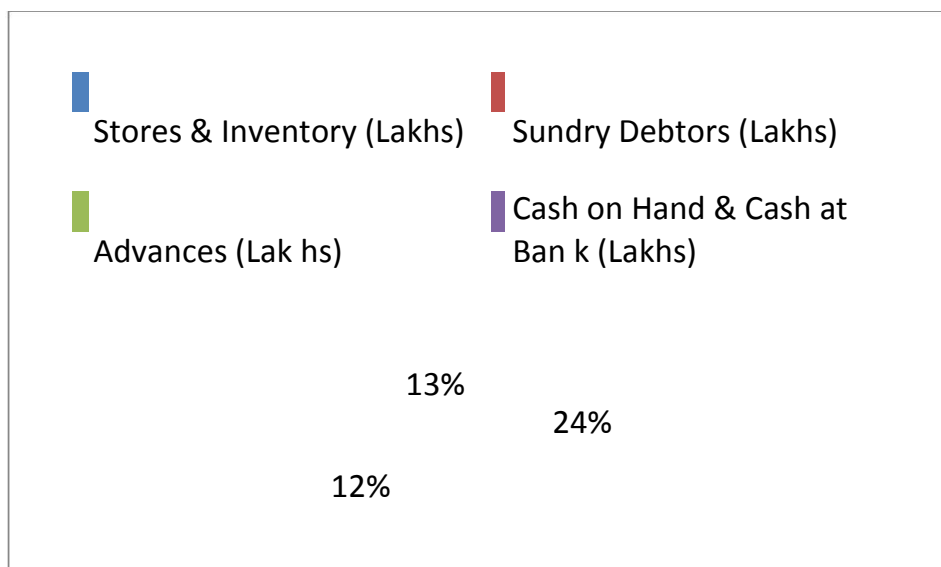
**Table 3.7**  
**Trend of Current Assets (per cent) (Base Year 2000-01) in NEKRTC From 2000-01 to 2012-12**

(Rs. in lakhs)

Year	Stores & Inventory (Lakhs)	Sundry Debtors (Lakhs)	Advances (Lakhs)	Cash on Hand & Cash at Bank (Lakhs)	Current Assets (Lakhs)	Trend
2005-06	508.65	866.13	848.11	574.18	2797.07	100
2006-07	735.76	995.09	811.64	740.87	3283.36	117.39
2007-08	893.19	973.25	696.16	404.46	2967.06	106.08
2008-09	1207.67	920.89	755.47	2654.69	5538.72	198.02
2009-10	1591.29	1982.18	837.39	1452.47	5863.33	209.62
2010-11	2089.63	2471.25	776.4	2323.89	7661.17	273.90
2011-12	2541.68	3332.23	869.8	3809.79	10553.5	377.31
2012-13	2425.55	5173.42	1231.76	1375.21	10205.94	364.88

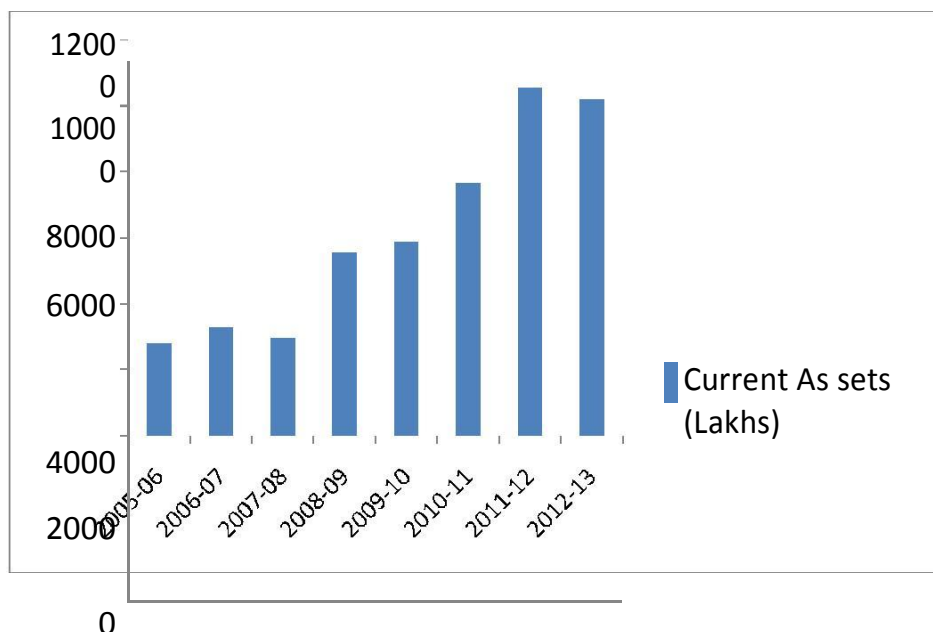
(Source: Compiled from annual administrative reports of NEKRTC for various years)

**Graph3.4**  
Relative Share of Current Assets as on 2012-13



Graph 3.5 reveal that current assets in NEKRTC show an increasing trend. Only there is a slight fall in the current year i.e., 201 2-13.

**Graph 3.5**  
**Variations in Current Assets (Lakhs)**  
**for the period 2000-2001 to 2012-13**



## 2. Current Liabilities Trend Analysis

Table 3.8 and graph 3.6 reveal that current liabilities in NEKRTC include four main components. From the table below, it is apparent that difference in Outstanding interest has the biggest contribution of around 71% to the current liabilities. Revenue liability form 17 percent and the remaining portion is capital expenditure and other liabilities .Thus, current liability of NEKRTC mainly comprises of outstanding interest. As such, the trend of current Liabilities is largely followed by the trend of outstanding interest in NEKRTC.

**Table 3.8**  
**Trend of Current Liabilities (per cent) (Base Year 2000-01) in**  
**NEKRTC From 2000-01 to 2012-12 (Rs. in lacs)**

Year	Revenue Liability	Outstanding interest	Capital Expenditure	Others	Current Liabilities	Trend
2005-06	1785.04	9743.33	831.55	2946.96	15306.88	100
2006-07	2153.97	13023.97	1011.43	2959.26	19148.63	125.10
2007-08	2201.4	16470.16	1777.75	3291.27	23740.58	123.98

2008-09	2582.41	19621.81	1126.54	2937.04	26267.8	110.65
2009-10	4688.38	22904.55	1430.43	4347.84	33371.2	127.04
2010-11	4927.09	25755.36	2469.04	4021.01	37172.5	111.39
2011-12	5242.73	30565.03	1291.31	4163.1	41262.17	111.00
2012-13	8647.82	35465.83	2841.92	2847.11	49802.68	120.70

(Source: Computed from NEKRTC Annual reports, Various Issues for 2000-01 to 2012-13)

**Table 2.5**

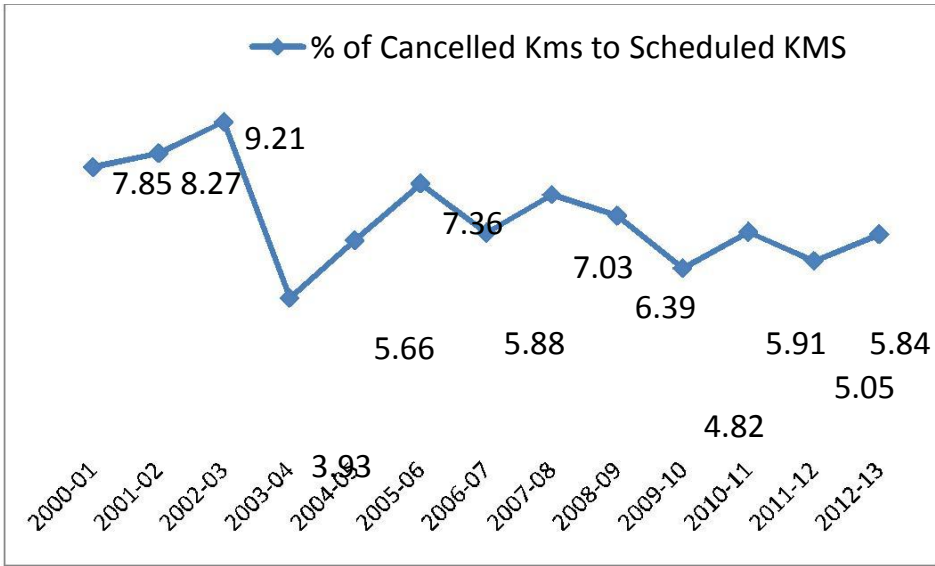
**Part Cancellation of Scheduled Kilometers**

S.No	Year	Scheduled KMS	Cancelled KMS	% of Cancelled Kms to Scheduled KMS
1	2000-01	1123	88.21	7.85
2	2001-02	2341	193.6	8.27
3	2002-03	2549.51	234.78	9.21
4	2003-04	2688.2	105.7	3.93
5	2004-05	2767.68	156.74	5.66
6	2005-06	2849.29	209.6	7.36
7	2006-07	3082.62	181.23	5.88
8	2007-08	3225.15	226.58	7.03
9	2008-09	3438.74	219.87	6.39
10	2009-10	3926.73	189.25	4.82
11	2010-11	4439.94	262.32	5.91
12	2011-12	4570.84	230.73	5.05
13	2012-13	4651.24	271.44	5.84

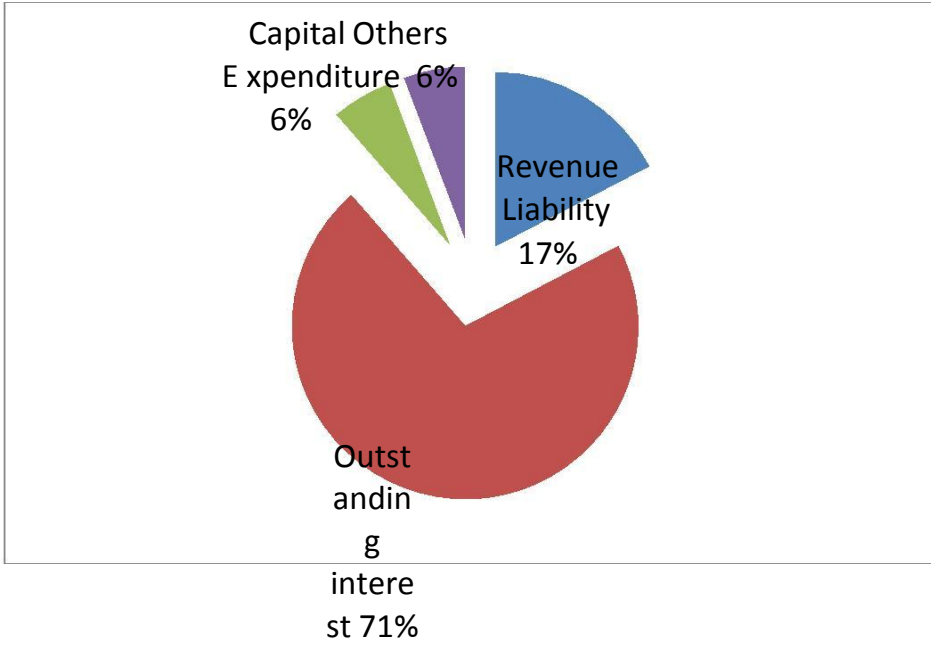
(Source: Compiled from annual administrative reports of NEKRTC for various years)



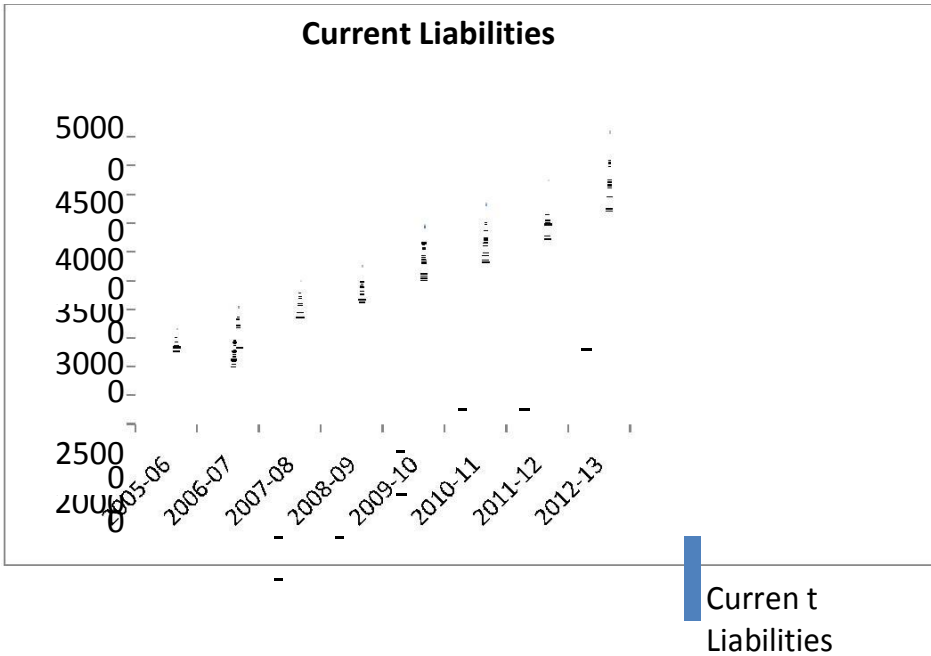
**Graph 2.10**  
**Percentage of Cancelled Kms to Scheduled Kms**



**Graph 3.6**  
**Relative Share of Current Liabilities as on 2012-13**



**Graph 3.7**  
**Relative Share of Current Liabilities as on 2012-13**



1500  
 1000  
 500  
 0

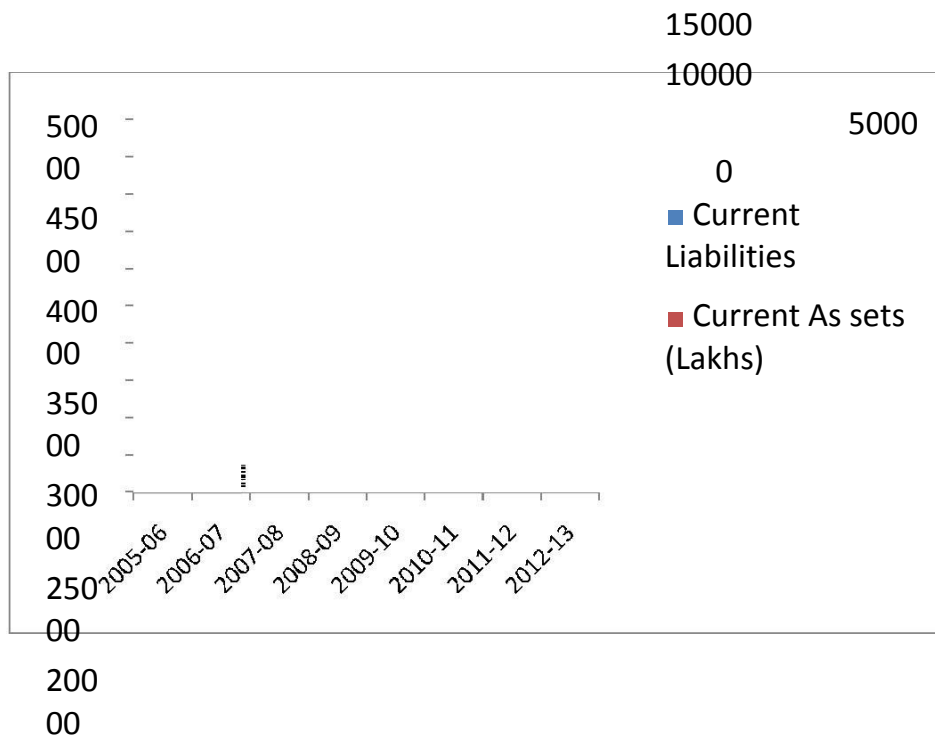
Current Liabilities

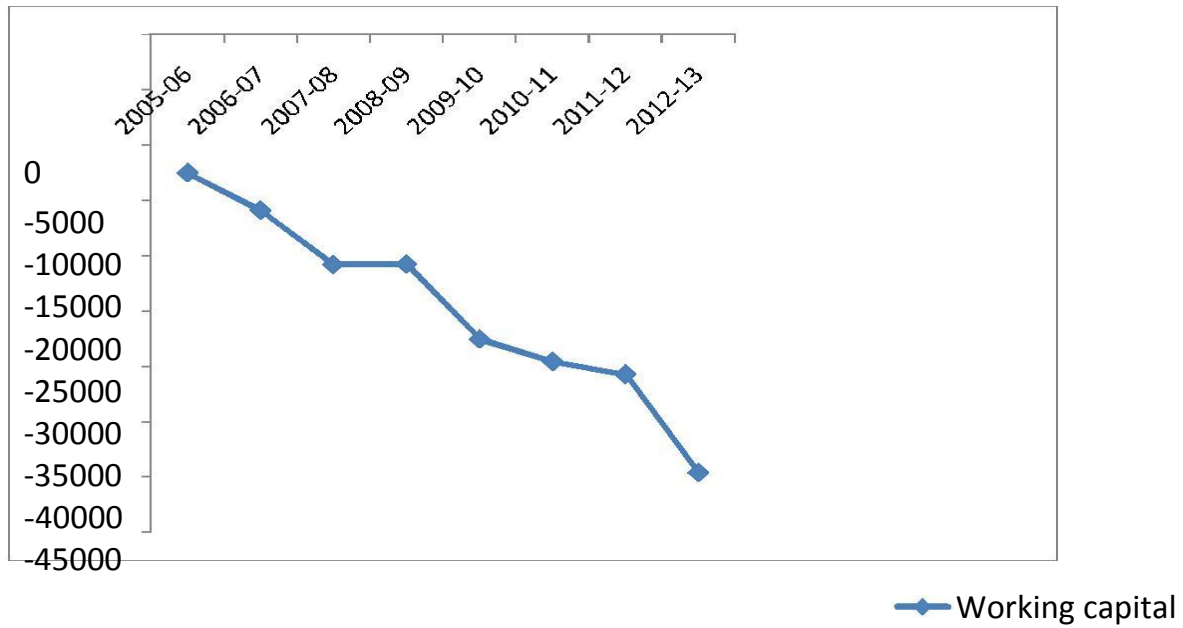
**Table3.9  
Working Capital**

<b>Year</b>	<b>Current Assets (Lakhs)</b>	<b>Current Liabilities</b>	<b>Working capital</b>
2005-06	2797.07	15306.9	-12509 .81
2006-07	3283.36	19148.6	-15865 .27
2007-08	2967.06	23740.6	-20773 .52
2008-09	5538.72	26267.8	-20729 .08
2009-10	5863.33	33371.2	-27507 .87
2010-11	7661.17	37172.5	-29511 .33
2011-12	10553.5	41262.2	-30708 .67
2012-13	10205.94	49802.7	-39596 .74

*(Source: Computed from NEKRTC Annual reports, Various Issues for 2000-01 to 2012-13)*

**Graph 3.8  
C urrent Assets and Current Liabilities**





Graph 3.8 reveals that, in NEKRTC, current liabilities are greater than current assets during the whole study period. Working capital is negative in major years of the study period except in the year 2002-03, 2003-04 and 2004-05. Thus, current Liability of NEKRTC is normally higher than its current Assets. Table 3.9 and graph 3.9 indicate that working capital in NEKRTC show decreasing trend. The working capital trend is negative for the entire study period as current assets are lower than current liabilities.

## **Chapter 4**

### **Balanced Scorecard for Performance Improvement of NEKRTC**

#### **1.5 Introduction**

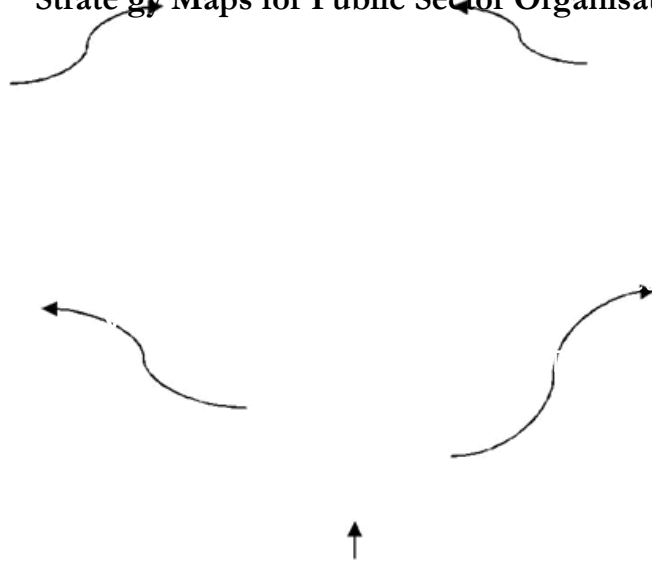
Balanced scorecard approach is a most regimented, practical approach which will help in making strategic planning and management system more effective. A key benefit of using a disciplined framework is that it gives organizations a way to 'connect the dots' between the various components of strategic planning and management, which means that there will be a visible connection between the projects and programs that people are working on, the measurements being used to track success, the strategic objectives the organization is trying to accomplish and the mission, vision and strategy of the organization.

#### **2.4 Balance Scorecard for Public Sector:**

Recently, performance management in Balanced Scorecard has been used in the public sector. Governments around the world nowadays take this extremely serious and many have introduced the legislations and frameworks for this specific purpose in the institutions as a report to them. Many of them prefer using Balanced Scorecard as a tool to measure their performance based on their own strategy. The management of an organization in all sectors both private and public sector institution all over the world are facing the challenges how to improved their institution to new strategies, which is determined and driven by informed and selective customers who want an outstanding performance from the organisation. However, the deep problem that all organizations encounter is their inability to execute successfully on their new strategies.

Basically the framework for value creation in public sector institution is similar to the private sector framework, but with several important distinctions, such as the definition of success for public sector is different from private sector. Private sector is more concern with the financial perspective; the objective of the organisation is to have maximum profit in order to increase the shareholder value. On the other hand, the public sector more concerns the social impact. According to public sector, the definition of the 'customers' is different from private institution since public sector institutions have many stakeholders such as politician, service users, resident, donator, etc. There is a fiduciary perspective rather than financial perspective in the public sector organizations. The objective wanted to be achieved is for constituency (resident), the taxpayers or donors who supply the funding.

**Figure 4.1**  
**Strategy Maps for Public Sector Organisations**



Public transport is made and regulated by rule for a public residents and it has fixed routes and scheduled service. The majority of public resident usually use the transport for travelling for working, shopping, or schools. Public transport is a service provided on a market, which has supply, demand and a price for using the service of the public transport. Similarly to other markets for goods or services, there are decisions that have to be made before the transport service passengers buy the price. These decisions, in the form of planning and control systems, are divided into 3 hierarchical level, they are strategic, tactical and operational level

**Table 4.1**

Decision level General description	Decision level General description	Decisions
Strategic Long term  (> 3 years)	What do we want to achieve?	General Aims: <ul style="list-style-type: none"> <li>• Transport policy</li> <li>Market</li> <li>• share</li> <li>• Profitability</li> </ul> General service characteristics: <ul style="list-style-type: none"> <li>• Areas</li> <li>• Target groups</li> <li>Intermodali</li> <li>• ty</li> </ul>
Tactical Medium term (1-2 years)	Which services can help to achieve these aims?	Detailed service characteristics <ul style="list-style-type: none"> <li>• Fares</li> <li>• Vehicles</li> <li>• Image</li> <li>• Routes</li> <li>• Additional services</li> <li>• Timetable</li> </ul>
Operational Short term  (1-6 months)	How to produce these services?	Sales <ul style="list-style-type: none"> <li>• Selling activities</li> <li>Information to the</li> <li>• public</li> </ul> Production <ul style="list-style-type: none"> <li>Infrastructure</li> <li>• management</li> <li>• Vehicle rostering &amp; maint.</li> <li>• Personnel rostering &amp; mgmt</li> </ul>

In public transport, there are four parties who influence the public transport development in a state or region. They are principals or politicians as the owner or the authority who have the responsibility and act as the representatives in the political level; the executive management of a regional public transport company as the Public Transport Authority (PTA); the operators of the public transport including the employees; and the customers as the passengers of the public transport and the residents. Each of these stakeholders has different interests in the network, such as principals/politicians think about the common

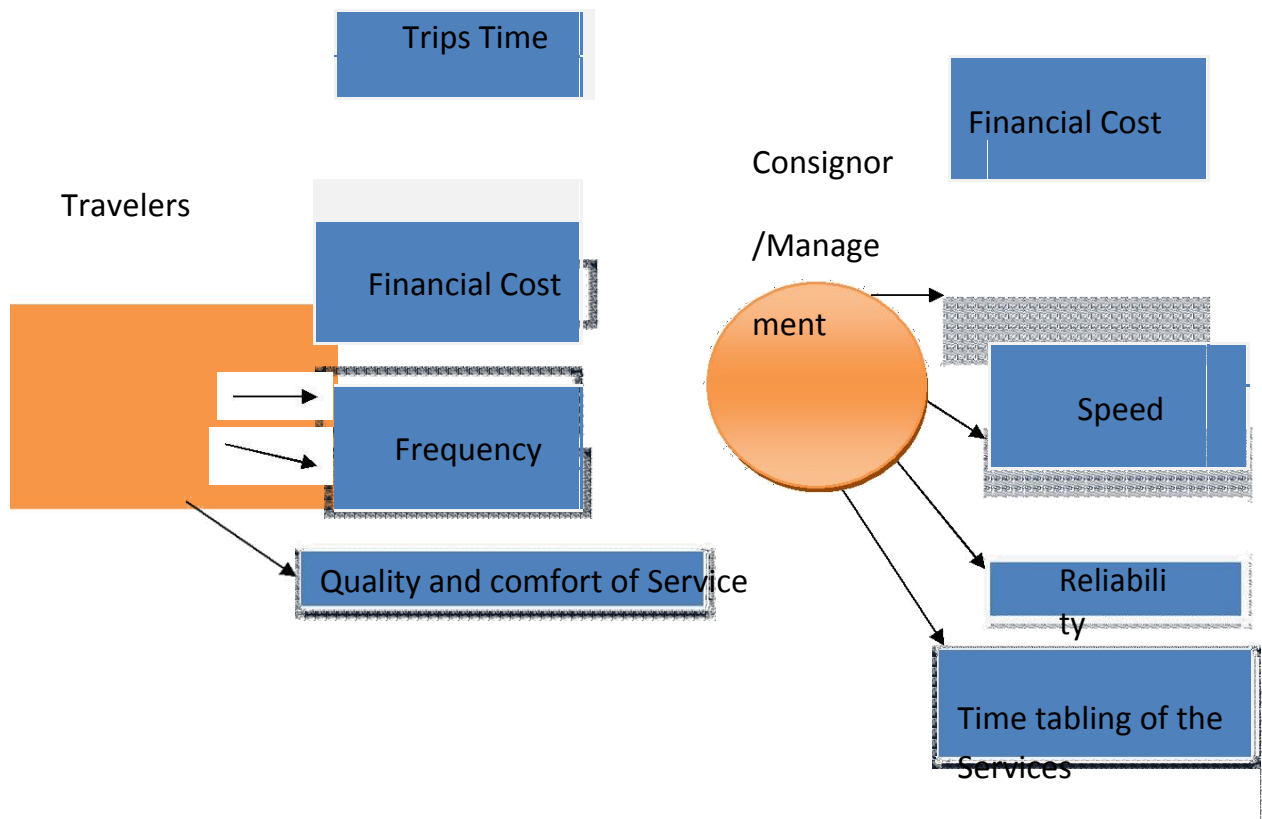


good; PTA think about the external efficiencies, and the customer think about the service satisfaction and external efficiencies of the operator. The relationship among these actors can be seen below:

Principals/Politicians	Customer
Public Transport Authority	Source/Operator

In the perspective of public transport users, there are factors that influence the decision of the travel. There are four factors which influence the travellers in choosing the mode of transport. There are trips time, financial cost, frequency, and quality and comfort of service.

**Figure 4.2**  
**Factors Decision of Travel**



## **Balanced Scorecard for NEKRTC**

The key perspectives of the Balanced Scorecard include customer satisfaction, financial, internal process and innovation and improvement activities. Although at its very initial stage the Balanced Scorecard is developed aiming mainly for public transport system which in turn makes profit. The realization of its imperative necessity was increasingly understood and spread into non-profit and public sectors within a very short span of time and accordingly its structure was customized to suit for the needs of those organizations.

While in the for-profit sectors the strategic mission was mainly centred at financial achievements therefore financial perspective is placed on the top followed by customer, internal process and learning and growth perspectives, in the non-profit sector. The sector's core mission and vision, rather than financial objectives drives the sector's strategy. For these non-profit sectors the mission is often to satisfy the customers rather than earning profit. However realizing that in order to ensure a sustainable customer satisfaction it is also equally important to maintain a sustainable financial status, both customer and financial perspective took place on the top of the framework here. Although at the micro level

transport sector may involve many private organizations as a sector it is essentially a public entity whose mission and vision is often to provide quality transport services to its users and at the same time protecting the environment and maintaining an operable economy. Therefore the Balanced Scorecard form for public sectors has been adopted in this study for NEKRTC.

The mission and vision of the corporation is principally centered at core sustainability objectives which means providing quality services to commuters in an economically viable and sustainable manner. While the economic enhancement is often targeted for the existence and survival of the sector itself the benefits of quality service and environmental protection is often realized by its customers. In other words, the objectives of economic sustainability remain embedded in the financial perspective of Balanced Scorecard whereas those of social and environmental sustainability are protected in the customer perspective. In this way the key pillars of sustainability incorporates into the Balanced Scorecard. Figure 1 is a snapshot of the entire balanced scorecard process that is being followed in the organization.

**Figure 1**



## 2.5 Development of the Scoring Mechanism

The scoring methodology includes two key steps: (1) determination of the score for individual indicator and (2) aggregating the individual indicator scores to obtain aggregated score at the theme and perspective levels as well as to obtain a single score

for the Balanced Scorecard.

## 2.10 Indicators/Matrix for Balanced Scorecard

Perspectives	Sustainability Themes	Sustainability Indicators
Customer	1. User Satisfaction and Social Coherence	<ul style="list-style-type: none"> <li>a. Accessibility, connectivity and travel time</li> <li>b. Affordability</li> <li>c. Level of service and comfort</li> <li>d. Safety enhancement</li> <li>e. Social equity and coherence</li> <li>f. Security</li> <li>g. enhancement</li> <li>h. Employment</li> <li>i. growth</li> </ul>
	Environmental Protection	
Financial	1. Revenue and Economic Enhancement	<ul style="list-style-type: none"> <li>a. Revenue Enhancement</li> <li>b. Management of mobility and travel demand</li> </ul>
	2. Effective Cost Management	
Internal Process	Institutional Efficiency	<ul style="list-style-type: none"> <li>a. Institutional coverage and capacity</li> <li>b. Efficiency of integration and of institutions</li> </ul>
	Environment Built and Land use	<ul style="list-style-type: none"> <li>a. Land-use and transport integration</li> <li>b. Management and quality of transport infrastructure</li> <li>c. Management of parking facilities</li> </ul>

	<p>Management of Transport Modes</p>	<ul style="list-style-type: none"> <li>a. Promotion of public transport Control over private</li> <li>b. vehicles</li> <li>c. Facilitation of non-motorized transport</li> <li>d. Integration among passenger modes Efficiency of commercial</li> <li>e. goods transport</li> <li>f. Promotion of green vehicles</li> <li>g. Promotion of car sharing practices</li> </ul>
	<p>Deployment of Smart Technologies</p>	<ul style="list-style-type: none"> <li>a. Vehicle emission standard Fuel</li> <li>b. standard</li> <li>c. Electronic fare collection Electronic road</li> <li>d. pricing</li> <li>e. Smart infrastructure technologies</li> <li>f. Smart vehicle technologies</li> <li>g. Advanced traveller information</li> <li>h. Congestion and incident management</li> </ul>

Learning and Growth	User Behaviour, feedback and adaptation	<ul style="list-style-type: none"> <li>a. Awareness and education</li> <li>b. Skill development and training</li> <li>c. Legislation and enforcement</li> <li>d. Public participation</li> <li>e. Leadership and political dynamics</li> <li>f. Adaptation with changing demographics and expectations</li> </ul>
	Research and Innovation	<ul style="list-style-type: none"> <li>a. New innovations and practices</li> <li>b. Research and development</li> </ul>

Basing on the above matrix NEKRTC need to develop a questionnaire covering all the indicators that are discussed in the above matrix and analyse them by assigning score for each indicator on a five-point Likert scale represented by: 1: Very poor, 2: Poor, 3: Moderate, 4: Good, 5: Excellent. Then, by averaging the score weights can be assigned to each them. This needs to be taken up by the decision makers to decide based on their specific needs. Finally the aggregate score of the Balanced Scorecard can be calculated by averaging the scores of all the identified perspectives.

## Chapter 5

### Suggestions and Recommendations

After making a detailed study on various perspectives of the viz., organizational, operational and financial keeping in view the given objectives the following suggestions and recommendations were brought out by the study team which will enhance the performance of the corporation in the years to come.

These suggestions and recommendations are classified under the above said perspectives:

#### **Organizational:**

There are no professional directors from any of the leading transport sectors for suggesting any best practices being followed by those corporations/concerns. Hence it is suggested that the Government may take a view to appoint two professional directors in the concerned field.

It is also observed that there is no professional chartered accountant for leading the financial matters and also to suggest the best means for either procurement of moveable and immoveable assets or capturing new markets for obtaining low cost finances.

It is also observed that the corporation is incurring more expenditure towards payment of interest on the borrowed funds either from the commercial banks or any financial institutions. This may be also taken care of from the above point.

It is observed from the employees details as given in Annexures I to VI that the key personnel like company secretary who takes care of all the board matters and also to meet the statutory formalities and to maintain the linkage between the various Government and Non-Government Departments.

It is also viewed that the other key personnel as given below remains vacant:

- Chief Traffic Manager
- Chief Law Officer
- Controller Stores and Purchases
- Senior Divisional Controller
- Chief Personnel Manager
- Principal
- Deputy Chief Mechanical Engineer
- Deputy Chief Accounts Officer
- Deputy Chief Traffic Manager
- Chief Statistical Officer

This is effecting performance of the corporation. Hence, steps may be taken to fill-up the above posts.

Apart from the above, it is also observed that some of the line personnel are also vacant for which effective measures may be taken for filling up this gap.

It is also observed that managing director is managing the day-in and day-out affairs of the corporation. Hence, it is suggested that a second line of authority may be created and also designated as Executive Director for managing the affairs of the corporation in the absence of first line of authority and also to reduce the burden of the Managing Director in order to concentrate on more effective measures for improving the productivity of the corporation.

### **Operational:**

It is observed from the graphs 2.1&2.2 that the staff ratio which is being maintained at around 5 is satisfactory when compared to the other similar corporations in the country.

It is also observed that the line personnel working on the routes are also less when compared to the road corporations existing in the south.

From the table 2.2 the number of vehicles being run over and above six lakh kilometers have been showing a positive sign. In addition it is observed that maximum number of vehicles

(789) have been added in the year 2009-10 while scrapping 367 vehicles in the same year. This shows the corporation intends to mobilize more new vehicles to support the new routes/schedules to increase the efficiency of the corporation and also to discard the old vehicles which are not cost effective. (it is better to go for a micro analysis with respect to the age/life of the buses.

For reducing the number of break downs and cancellations etc. for which the organization need to take effective measures to bridge this gap in the near future.

In case of fuel efficiency comparing to the other corporation especially in south the results are satisfactory

In case of staff productivity the revenue earned is not sufficient to meet all the costs of the corporation in order to make it turnaround from red to green. Hence, the targets are to be set showing an higher growth of productivity and also to cut down the unproductive costs. The major task of the corporation is to identify wasteful expenditure by improving the performance rating of working personnel. This is more needed on the line personnel activities rather than staff functioning.

In case of occupancy ratio the corporation is loosing so much revenue because of the poor occupancy ratio. It is observed that schedules pertaining to rural areas are unable to mob passengers. This is due to the non frequency of bus timings, bad roads and also seasonal effects.

With respect to dead kilometres it is observed that there is a continuous increase in these kilometers which is a major loss to the corporation. As a result of which the total loss has also increased over the years.

It was informed that the corporation used to have direct linkage with the oil companies for getting the diesel in order to fill up the buses at the appropriate places without loosing any un effective kilometers. Hence, the corporation has to



think of for a major change for a policy decision to review the above problem.

It is felt that the corporation may approach the state government for coordinating this activity either with the central government or directly with the oil companies

As far as part cancellation of scheduled kilometres is concerned It is observed that over the years the percentage of cancelled kilometers to scheduled kilometers has come down which is quite impressive.

In order to reduce the part cancellations it is suggested that a suitable incentive system may be designed to improve the morale of the crew staff. In this regard positive financial system may be effected.

If feel necessary threat also may be created for not attending the duty at the schedule time for carrying on the fleet. On the other side, financial incentive system shall cover all the major attractions for reducing the part cancellations.

It was informed that spare crew are available. But they were to be informed after knowing the concerned crew have not attended the duty for taking up the schedule. Hence there is a time gap between these two availabilities.

In view of this, if the concerned crew have been heavily penalized for not informing about his absence prior either by one/two days. There by effective planning can be done.

With regard to load factor in order to improve the load factor at least in some traffic routes a survey could be done for identifying the regular passengers.

In addition, the frequency of the buses could be enhanced at peak hours depending on the directions of path flow so that revenue may be increased.

More awareness shall be created giving all the details of the frequencies of the buses availability at the important locations. This shall be adhered for creating confidence levels of the passengers.

The corporation may utilize the scheme under JNNURAM to procure the buses for routing the buses under profitable schedules like express services etc. apart from this where ever the rural services are to be connected this may be better option for controlling the operational expenses since these being new buses.

## **Financial:**

Every body is aware of the fact that the fuel prices are increasing day by day abnormally effecting the performance of the corporation. It can be viewed from the Graph that the fuel cost is contributing to 35% to 45% out of the total expenses incurred per kilometer rate.

In addition to the fuel cost, the staff cost is also contributing equal to that of fuel price which is indicated in the above graph.

It is a known fact that there is no authority for the corporation to increase the traffic rates as and when required depending upon the increase of fuel price as and when being effected. Hence the matter is being referred to the Government for obtaining the approval in order to enhance the traffic prices. This is taking a

considerable time because of which the performance is mostly affected.

In view of the above it is suggested that the Government may think off for delegating the powers to the respective boards/special committee for taking effective measures to follow the best practices what ever could be done at that juncture.

As far as the staff cost is concerned detailed study could be done for placing the appropriate personnel at the right places and also to implement the best practices for reducing the work load on the line personnel. It is also recommended to appoint the key personnal as given in **the first chapter**.

It is also viewed that the State Government is kind enough to permit the corporation for retaining the MV Tax till the corporation has made a turn around. It is recommended that this facility may be extended for further period of five to ten years to wipe off all the cash losses.

It is suggested that the cost break structure of the fuel price may be studied in detail in order to give provisions for reducing the tax structures if any as a major component. This will considerably make a good effect on the performance of the corporation.

There is a huge gap of Rs38,206 for the period 2011-12 to 2013-14 to be received by the corporation from the Government for which the details are given in table 2.12.

Hence it is suggested that the corporation may take efforts for obtaining the above funds from the government.

It is viewed that the earnings from operations of express services is much more when compared to other services like ordinary and sub-urban. Hence, the routes are to be studied in detail for making the effective transport distances and also to reduce/combine different stoppages in between in order to make an effective control on the operations as per the table 2.13

### **General:**

It was informed by the passengers and also some of the officials that the scheduled are being effected in some of the seasons. Especially in the rainy seasons, part cancellations have become more and thus effecting the services of the passengers. It is reported that this is being happening due to the absenteeism of the respective crew. Some other services are effected due to the bad roads.

Especially in the summer season the traffic is much more than the number of schedules being maintained. Hence, it is appropriate to increase the schedules for attracting more passengers.

It is viewed the corporation is taking efforts for increasing number of schedules to fulfill the requirement of the passengers in case of special occasions like festivals, jataras etc. It was informed by the passengers the number of schedules being maintained are not meeting the full demand of the passengers. Hence, the corporation may take necessary steps to meet the growing demand.

Railways being a big entity meeting the demand for the whole country, the fare structure is entirely different considering the topology of the country. The price structure is also different considering all the inputs. The railway fare is cheaper when compared to the bus services of every corporation in every state.

The following are the observations of the focused group and as well as students; The number of schedules are not sufficient in case of peak timings It was informed that during the peak timings the schedules are being taken on the opposite direction of the requirement of the passengers. Hence, more time lag is observed.

The amenities' in the buses may be modified to suit the comfort of the passengers.

Management may adopt sufficient measures for man power rationalization. Staff/bus ratio is much above than other SRTC. In fact, it should reach to 4.75 which can be achieved either by reducing the size of staff or increasing fleets.

The management may try to improve load factor achieved. It may think to find alternative vehicles like mini buses if possible or increase customer awareness to improve load factor.

The management may give due consideration that the profitable trips should not be cancelled due to the controllable reasons. They can take every measure to avoid such cancellation.

The management can take strong action for reducing operating expenses especially staff productivity, fleet utilization and occupancy ratio

The management may adopt scientific approach in major areas of Human resource Management namely recruitment, training, goal setting, performance appraisal and incentives plan etc.

Management can achieve high operational efficiency by effectively utilizing available recourses, timely replacement of vehicles, and reduced breakdown by proper maintenance, appropriate route scheduling, punctuality and safety in operations.

Management may develop approach of customer orientation in terms of quality of service (punctuality and safety), appropriate pricing and an enhanced service. Management should develop strong monitoring mechanism for surprise checking.

The management may adopt principles of scientific management. It should also render the services of experienced professionals for managing its operations or policy decisions if felt necessary.

### **Action plan for employees**

The employees may develop professional attitude, approach and action rather than traditional or biased one.

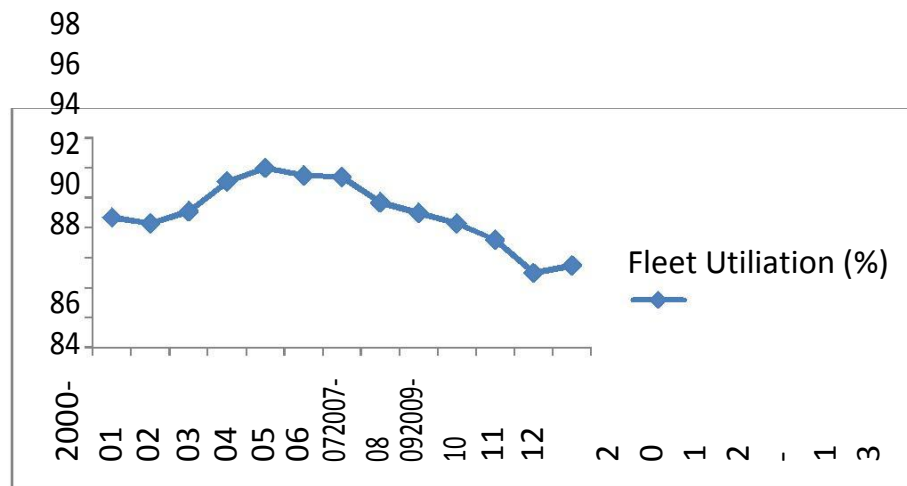
The employees may prepare themselves to cope up with changing environment. They should be prepared to change in terms of adopting new technologies, developing new skills, adopting a set of new performance measures, developing professional

orientations to work, and innovating ways of conducting business, flexible working hours. Variable compensation, customer focused actions, qualitative services etc.

### Compliance of Final Report

**Fleet Utilization<sup>i</sup>:** Fleet Utilization is the ratio of the buses on road to an average fleet held by an Undertaking. An average fleet utilization for NEKRTC is around 90% over the period from 2000-01 to 2012-13. It is clear from graph and table that the number of buses on road to the total strength has shown a declining trend. The reasons may be due to more break downs, cancellations etc. for which the organization need to take effective measures to bridge this gap in the near future.

**Fleet Utilization (%)**



S.No	Year	Avg. No. of Buses Held	Avg. No. of Buses on -road	Avg. No. of Buses Breakdown
1	2	3	4	5
1	2000-01	1951	1809	142
2	2001-02	1992	1841	151
3	2002-03	2241	2087	154
4	2003-04	2377	2261	115
5	2004-05	2386	2290	95
6	2005-06	2435	2327	108
7	2006-07	2558	2442	116
8	2007-08	2650	2488	161
9	2008-09	2830	2632.2	198
10	2009-10	3716	3431.2	285
11	2010-11	3772	3441.4	331
12	2011-12	3991	3554.5	437

**Vehicle Utilization:**

Vehicle Utilization has a multiple impact on the financial performance of the corporation. Increase in average vehicle utilization leads to additional kilometers operated on bus routes and hence additional revenue. Secondly, increase in VU implies more kilometers produced/operated per bus, which goes to reduce the overhead cost per kilometer. Viewed in this perspective, the corporation performed well as evidenced by a rapid increase in vehicle utilization from 324 in 2001-02 to 339 in 2012-13. The vehicle utilization of other corporations like APSRTC, KSRTC and NWKRTC is also on similar lines which shows that the performance in similar lines will make the corporation to reach to a higher figure of 360 by the end of 2015-16.

**Vehicle Utilization**

YEARS	NWKRTC	NEKRTC	APSRTC	KSRTC
2001-02	348	324	325	370
2002-03	351	309	324	372
2003-04	347	320	326	374
2004-05	341	316	332	377
2005-06	326	317	335	373
2006-07	331	333	347	374
2007-08	345	336	352	377
2008-09	343	343	360	378
2009-10	334	348	357	381
2010-11	336	342	364	379
2011-12	342	343	354	380
2012-13	343	339	363	381

**Percentage of Cancelled Kilometers to Scheduled Kilometers<sup>ii</sup>**

The corporation has accomplished a significant reduction in percentage of cancellations from 5.66 % in the year 2004-05 to 4.82% in the year 2009-10. But during recent years it has again gone up where significant steps need to be taken to control this. The other corporation like NWKRTC, APSRTC and KSRTC are slowly moving in this direction and able to reduce percentage of cancellations.

In order to reduce the part cancellations it is suggested that a suitable incentive system may be designed to improve the morale of the crew staff. In this regard positive financial system may be affected.

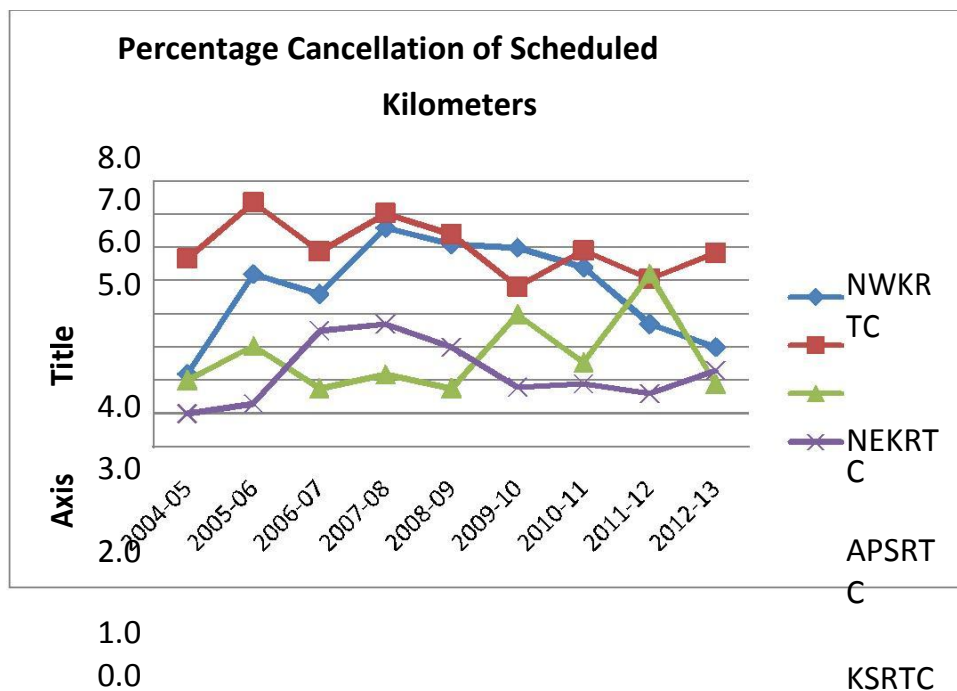
If feel necessary threat also may be created for not attending the duty at the schedule time for carrying on the fleet. On the other side, financial incentive system shall cover all the major attractions for reducing the part cancellations.

It was informed that spare crew are available. But they were to be informed after knowing the concerned crew have not attended the duty for taking up the schedule. Hence there is a time gap between these two availabilities.

In view of this, if the concerned crew have been penalized for not informing about his absence prior either by one/two days. There by effective planning can be done

### Percentage of Cancelled Kilometers to Scheduled Kilometers

YEARS	NWKRTC	NEKRTC	APSRTC	KSRTC
2004-05	2.2	5.66	2.01	1
2005-06	5.2	7.36	3.04	1.3
2006-07	4.6	5.88	1.76	3.5
2007-08	6.6	7.03	2.18	3.7
2008-09	6.1	6.39	1.76	3.0
2009-10	6.0	4.82	3.99	1.8
2010-11	5.4	5.91	2.54	1.9
2011-12	3.7	5.05	5.21	1.6
2012-13	3.0	5.84	1.89	2.3



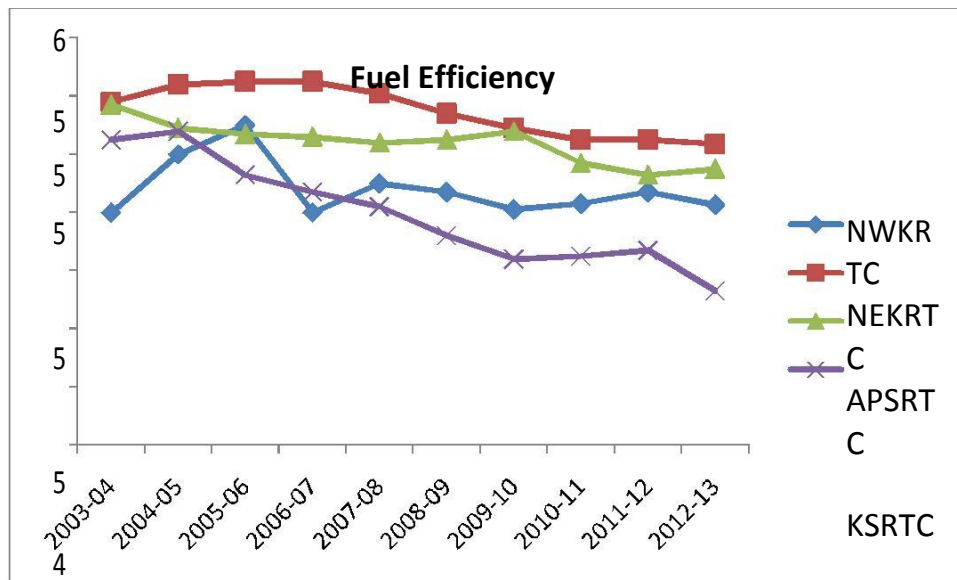
### Fuel Efficiency<sup>iii</sup>

Average kilometer per liter of fuel reflects the fuel efficiency in operation. The fuel efficiency of NEKRTC over the period for ten years from 2000-01 to 2012-13 is given in graph 5 in chapter 2. It is clear that the fuel efficiency has improved from 4.8 in the year 2000-01 to 5.4 KMPL in the year 2003-04 which has been maintained for a period of 5 years i.e., up to 2007-08. This has been declined from the year 2008-09 to 2012-13 to 5.2

KMPL. However, comparing to the other corporation like NWKRTC, NEKRTC APSRTC KSRTC the result is satisfactory

### Fuel Efficiency

YEARS	NWKRTC	NEKRTC	APSRTC	KSRTC
2003-04	5	5.38	5.37	5.25
2004-05	5.2	5.44	5.29	5.28
2005-06	5.3	5.45	5.27	5.13
2006-07	5.0	5.45	5.26	5.07
2007-08	5.1	5.41	5.24	5.02
2008-09	5.1	5.34	5.25	4.9
2009-10	5.0	5.29	5.28	4.84
2010-11	5.0	5.25	5.17	4.85
2011-12	5.1	5.25	5.13	4.87
2012-13	5.0	5.24	5.15	4.73



4

### Dead Kilometers<sup>iv</sup>

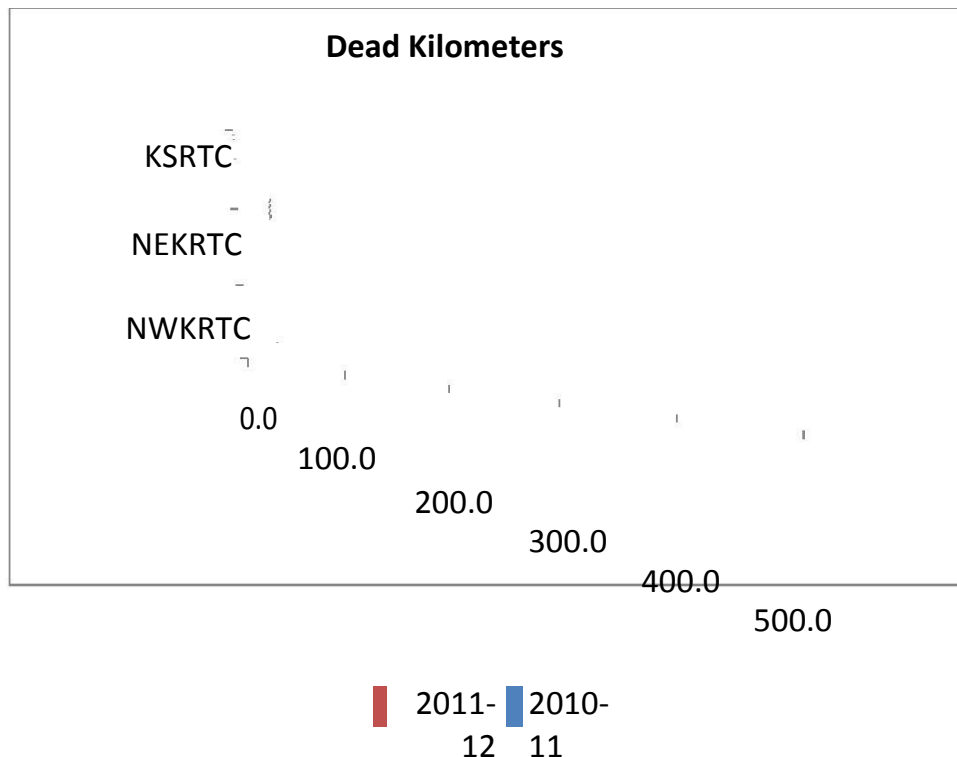
Dead kilometers refer to the distance traveled by the buses from various depots/workshops to the bus station for which no revenue is earned. It equals the gross kilometers minus the effective kilometers. Table and graph below analysed the dead kilometers of NEKRTC, NWKRTC, KSRTC for the period 20010-11 to 2011-12.

It is observed that there is a continuous increase in these kilometers which is a major loss to the corporation. As a result of which the total loss has also increased over the years. The data for NEKRTC for the period 2001-02 to 2012-13 is given in chapter 2. From table and graph below shows that compared to KSRTC, NEKRTC is better. But it is informed that the corporation used to have direct linkage with the oil companies for getting the diesel in order to fill up the buses at the appropriate places without loosing any uneffective kilometers. Hence, the corporation has to think of for a major change for a policy decision to review the above problem.

It is felt that the corporation may approach the state government for coordinating this activity either with the central government or directly with the oil companies

### Dead Kilometers

YEARS	NWKRTC	NEKRTC	KSRTC
2010-11	137.9	127.14	385.43
2011-12	134.8	172.12	449.00



**Passengers Carried/Day (L akhs):** The total number of passengers carried has shown a significant improvement over the year and it is 13.25 lakh passenger per day during

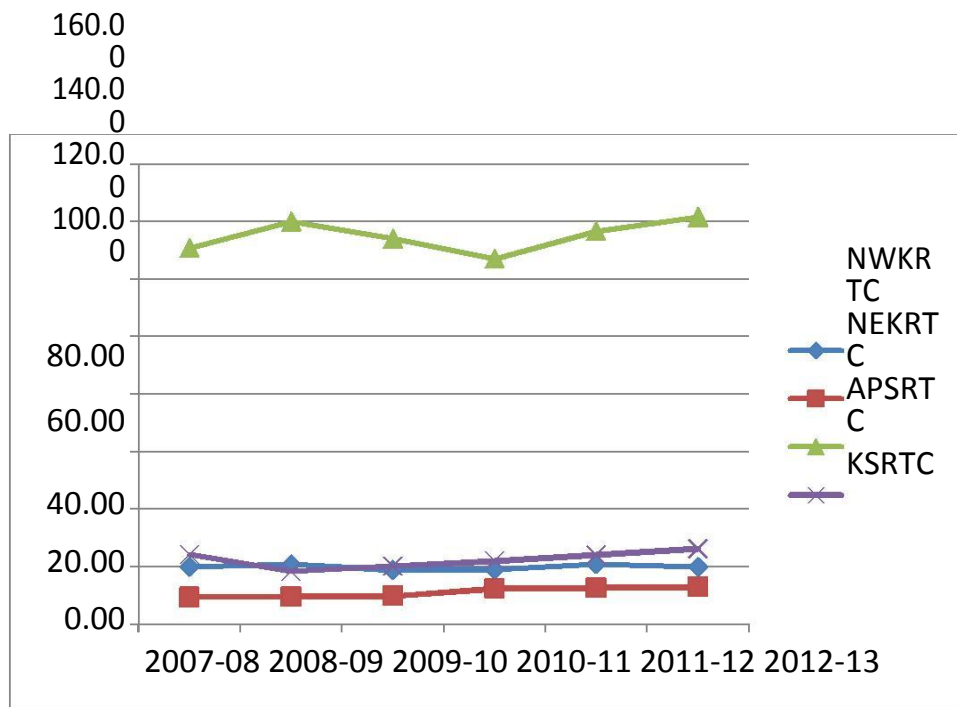


2012-13 where as it was 7.88 lakh passenger per day during 2000-01. Table and graph below shows that when compared to other corporations like NWKRTC, APSRTC and KSRTC, NEKRTC is carrying less number of passengers which need to be improved.

**Passengers Carried/Day (Lakhs)**

YEARS	NWKRTC	NEKRTC	APSRTC	KSRTC
2007-08	20.00	9.45	130.81	24.36
2008-09	21.00	9.65	140.02	18.55
2009-10	19.00	9.89	134.07	20.29
2010-11	19.10	12.54	127.09	22.13
2011-12	21.00	12.78	136.65	24.23
2012-13	20.05	13.04	141.57	26.33

### Passengers Carried/Day (Lakhs)



Note: It is mentioned that in calculating the fleet utilization the number of buses that were not deployed due to their being in repairs was not deducted. But that was done. The column 5 in the table below shows the buses under breakdown. The average number of buses on road means that the average no. of buses held minus the average no. of buses under breakdown. The formula for fleet utilization is Avg.no. of buses on road/Avg. no. of buses held. Graph above explains the fleet utilization (%).

1.6 Due to data constraints with NWKRTC, APSRTC and KSRTC on Percentage of Cancelled Kilometers to Scheduled Kilometers, comparisons were made from 2004-05 to 2012-13. Analysis on Percentage of Cancelled Kilometers to Scheduled Kilometers of NEKRTC from 2000-01 to 2012-13 was given in chapter 2

1.7 Because of data constraints with NWKRTC, APSRTC and KSRTC on fuel efficiency, comparisons were made from 2003-04 to 2012-13. Analysis on fuel efficiency of NEKRTC from 2000-01 to 2012-13 was given in chapter 2

1.8 Because of data constraints with NWKRTC and KSRTC the dead kilometers are compared with other corporations only for two years. Analysis on dead kilometers of NEKRTC was given in chapter 2