15 -ാം കേരള നിയമസഭ

3 -ാം സമ്മേളനം

നക്ഷത്ര ചിഹ്നം ഇല്ലാത്ത ചോദ്യം നം. 1748 **08-10-2021 - ൽ മറുപടിയ്ക്ക്**

സുശീൽ ഖന്ന റിപ്പോർട്ട്

ചോദ്യം		ഉത്തരം	
ശ്രീ. നജീബ് കാന്തപുരം		**Shri Antony Raju (ഗതാഗത വകുപ്പ് മന്ത്രി)**	
(എ)	കെ.എസ്.ആർ.ടി.സി യെ കുറിച്ച് പഠിച്ച് റിപ്പോർട്ട് സമർപ്പിക്കാൻ പ്രൊഫസർ സുശീൽ ഖന്നയെ മുൻ സർക്കാർ നിയോഗിച്ചിരുന്നോ; എങ്കിൽ എന്നാണ് നിയോഗിച്ചത്; പ്രസ്തുത സർക്കാർ ഉത്തരവിന്റെ പകർപ്പ് ലഭ്യമാക്കുമോ;	(എ)	കെ.എസ്.ആർ.ടി.സി.യുടെ പുനരുദ്ധാരണത്തിന്റെ ഭാഗമായി പഠനം നടത്തുന്നതിന് IIM കൽക്കട്ടയിലെ റിട്ട. പ്രൊഫ. സുശീൽ ഖന്നയെ 24.09.2016-ലെ സ.ഉ. (സാധാ) നം. 367/2016/ഗതാ. ഉത്തരവ് പ്രകാരം നിയോഗിച്ചിരുന്നു. ഉത്തരവിന്റെ പകർപ്പ് അനുബന്ധം I ആയി ചേർക്കുന്നു.
(ബി)	എന്ന് മുതലാണ്പ്രസ്തുത പഠനച്ചുമതല പ്രൊഫസർ സുശീൽ ഖന്നയുടെ നേതൃത്വത്തിലുള്ള കമ്മിറ്റി ഏറ്റെടുത്തതെന്ന് അറിയിക്കുമോ; റിപ്പോർട്ട് സമർപ്പിക്കുന്നതിന് കാലപരിധി നിശ്ചയിച്ചിരുന്നോ; എങ്കിൽ വിശദവിവരം ലഭ്യമാക്കുമോ; പ്രസ്തുത പഠനം പൂർത്തിയാക്കിയിരുന്നോ; എങ്കിൽ എന്ന് പൂർത്തിയാക്കിയെന്നറിയിക്കാമോ;	(ബി)	24.09.2016-ലെ സ.ഉ. (സാധാ) നം. 367/2016/ ഗതാ. ഉത്തരവ് പ്രകാരം പഠന റിപ്പോർട്ട് സമർപ്പിക്കുന്നതിന് മൂന്ന് മാസത്തെ കാലാവധിയാണ് നിശ്ചയിച്ചിരുന്നത്. എന്നാൽ റിപ്പോർട്ട് പൂർത്തിയാക്കാത്തതിനെ തുടർന്ന് മൂന്ന് ഘട്ടങ്ങളിലായി 31.10.2018 വരെ കാലാവധി ദീർഘിപ്പിച്ച് നൽകിയിട്ടുണ്ട്. 10.03.2017-ൽ കരട് റിപ്പോർട്ടും 27.02.2019-ൽ അന്തിമ റിപ്പോർട്ടും സമർപ്പിച്ചിട്ടുണ്ട്.
(സി)	ടിയാന് നിയമനം നല്കിയ ശേഷം പ്രസ്തുത പഠനവുമായി ബന്ധപ്പെട്ട് സർക്കാരോ, സർക്കാർ ഏജൻസികളോ നാളിതുവരെ ചെലവഴിച്ച തുക, ടിയാൻ പ്രതിമാസം കൈപ്പറ്റിയ തുക എന്നിവയുടെ രസീതിന്റെ പകർപ്പ് ലഭ്യമാക്കുമോ;	(സി)	പ്രസ്തുത പഠനവുമായി ബന്ധപ്പെട്ട് റിട്ട. പ്രൊഫ. സുശീൽ ഖന്നയ്ക്ക് നൽകിയ പ്രതിഫലത്തിന്റെ വിവരം ചുവടെ ചേർക്കുന്നു. Ch.No.326443 dt.23.12.16 Rs. 102000/- Bill No. 398 dtd.15.02.2017 Rs. 22,450/- Ch.No.501928 dt.07.03.17 Bill No. 1437 dtd.06.06.18 Rs. 14146/- Ch.No.383015 Bill No. 2157 dtd.05.09.17 Rs. 16960/- Ch.No. 421977 dt.07.09.18 Bill No. 1464 dtd. 13.08.19 Rs. 30000/- Ch.No.630160 dt.24.08.19. പ്രസ്തുത പഠനവുമായി ബന്ധപ്പെട്ട് ശ്രീ.തോമസ് മാത്യുവിന് നൽകിയ പ്രതിഫലത്തിന്റെ വിവരം ചുവടെ ചേർക്കുന്നു. Bill No. 1464 dtd.13.08.19 Rs. 70000/- Ch.No.630161 dt.24.08.19 Bill No. 771 dtd.30.03.17 Rs. 70,650/- Ch.No.790309 dt.04.03.17 Bill No. 1345 dtd.01.06.18 Rs.

			35000/- Ch.No.382956 dt.06.04.18 Bill No. 4463 dtd. 13.03.19 Rs. 105000/- Ch.No.191519 dt.27.03.19 Bill No. 1586 dtd.06.07.17 Rs. 70,770/- Ch.No.791000 dt.06.07.17 Ch.No.326444 dt.23.12.16 Rs. 70300/- ശ്രീ.ഹനുമന്തറാവുവിന് നൽകിയ പ്രതിഫലത്തിന്റെ വിവരം ചുവടെ ചേർക്കുന്നു. Ch.No.326445 dt.23.12.16 Rs. 41800/-. ആകെ തുക: Rs. 6,49,076/- . ഈ തുകകൾ ബാങ്ക് മുഖേന online വഴിയാണ് ബന്ധപ്പെട്ടവരുടെ അക്കൗണ്ടുകളിലേയ്ക്ക് ട്രാൻസ്ഫർ ചെയ്ത് നൽകിയത്.
(ഡി)	പ്രസ്തുത പഠന റിപ്പോർട്ട് സമർപ്പിച്ചിരുന്നോ; എങ്കിൽ ഭാഗികമായ റിപ്പോർട്ടാണോ പരിപൂർണ റിപ്പോർട്ടാണോ സമർപ്പിച്ചതെന്നും അത് എന്നാണെന്നും വ്യക്തമാക്കുമോ;	(ഡി)	10.03.2017-ൽ കരട് റിപ്പോർട്ടും 27.02.2019-ൽ അന്തിമ റിപ്പോർട്ടും സമർപ്പിച്ചിട്ടുണ്ട്.
(ഇ)	പ്രസ്തുത റിപ്പോർട്ടിന്റെ പകർപ്പ് 14-ാം കേരള നിയമസഭയിൽ അംഗമായിരുന്ന സാമാജികർ ആരെങ്കിലും ആവശ്യപ്പെട്ടിരുന്നോ; എങ്കിൽ ആരൊക്കെയെന്നും എത്ര തവണ ആവശ്യപ്പെട്ടിട്ടുണ്ടെന്നെന്നും വ്യക്തമാക്കുമോ;	(ഇ)	അന്തിമ റിപ്പോർട്ടിന്റെ പകർപ്പ് പതിനാലാം കേരള നിയമസഭയിലെ പതിനഞ്ചാം സമ്മേളനത്തിൽ ശ്രീ.പി.ഉബൈദുള്ള, ഡോ.എം.കെ. മുനീർ, ശ്രീ.മഞ്ഞളാംകുഴി അലി, ശ്രീ.എം.ഉമ്മർ എന്നിവർ ആവശ്യപ്പെട്ടതിന്റെ അടിസ്ഥാനത്തിൽ പകർപ്പ് നൽകിയിരുന്നു. പ്രസ്തുത റിപ്പോർട്ടിന്റെ പകർപ്പ് അനുബന്ധം II ആയി ചേർക്കുന്നു.
(എഫ്)	പ്രസ്തുത റിപ്പോർട്ട് ഇവരിലാർക്കെങ്കിലും ലഭ്യമാക്കിയിട്ടുണ്ടായിരുന്നോ; എങ്കിൽ ആർക്കൊക്കെ എപ്പോൾ ലഭ്യമാക്കിയെന്നും ലഭ്യമാക്കിയത് ഭാഗിക റിപ്പോർട്ടാണോ പരിപൂർണ്ണ റിപ്പോർട്ടാണോയെന്നും വ്യക്തമാക്കുമോ; പ്രസ്തുത റിപ്പോർട്ടിന്റെ പകർപ്പ് ലഭ്യമാക്കുമോ; ഇല്ലെങ്കിൽ കാരണം അറിയിക്കാമോ?	(എഫ്)	അന്തിമ റിപ്പോർട്ടിന്റെ പകർപ്പ് പതിനാലാം കേരള നിയമസഭയിലെ പതിനഞ്ചാം സമ്മേളനത്തിൽ ശ്രീ.പി.ഉബൈദുള്ള, ഡോ.എം.കെ. മുനീർ, ശ്രീ.മഞ്ഞളാംകുഴി അലി, ശ്രീ.എം.ഉമ്മർ എന്നിവർ ആവശ്യപ്പെട്ടതിന്റെ അടിസ്ഥാനത്തിൽ പകർപ്പ് നൽകിയിരുന്നു. പ്രസ്തുത റിപ്പോർട്ടിന്റെ പകർപ്പ് അനുബന്ധം II ആയി ചേർക്കുന്നു.

സെക്ഷൻ ഓഫീസർ

File No.TRANS-A1/164/2016-TRANS

GOVERNMENT OF KERALA

Abstract

Transport Department - Appointment of Shri.Sushil Khanna, Professor, Indian Institute of Management Calcutta as Consultant in Kerala State Road Transport Corporation - Reg

Transport (A) DEPARTMENT

G.O.(Rt)No. 367/2016/TRANS Dated,Thiruvananthapuram,24/09/2016

:

ORDER

Government are pleased to appoint Shri.Sushil Khanna, Professor, Indian Institute of Management Calcutta as Consultant in Kerala State Road Transport Corporation for the comprehensive study related to the restructuring of Kerala State Road Transport Corporation. The terms of reference included in the study are the following.

i. Operation Management
ii. Financial Management
iii. HR Management
iv. Inventory Management

2. The study report shall be submitted to Government within three months. The terms and conditions regarding the appointment including Fees / Allowances to the consultant will be issued separately.

By order of the Governor
K.R.JYOTHILAL
SECRETARY

To:- Shri.Sushil Khanna, Professor, 218 B, Lake Terrace Extn. Indian Institute of Management Calcutta, Calcutta 700029 D. H. Road, Calcutta 700104
The Principal Accountant General (A&E/ Audit), Kerala, Thiruvananthapuram
The Chairman & Managing Director, Kerala State Road Transport Corporation, Thiruvananthapuram
The Managing Director, Kerala Transport Development Finance Corporation, Thiruvananthapuram
The Principal, Sree Chitra Thirunal College of Engineering & Technology, Pappanamcode,Thiruvananthapuram
The General Administration (SS) Department (vide item No.307 (OA))
The Finance Department
The Information & Public Relations (Web & New Media) Department

KERALA STATE ROAD TRANSPORT CORPORATION: CRISIS AND TURNAROUND STRATEGY

Sushil Khanna

(with the able assistance of Mr. Thomas Mathew)

(Submitted to the Government of Kerala

on 27 February 2019)

ACKNOWLEDGEMENTS

It would have been nearly impossible to submit this report on our two-year-long study on the issues facing KSRTC without the constant support of many a people who believed in the potential of the Corporation. We do not think that a list of acknowledgements could be exhaustive enough to thank all the people who had contributed to our study.

The Hon. Chief Minister of Kerala, Shri Pinarayi Vijayan, not only attended our detailed presentation with keen interest albeit his packed schedule; he gave us certain valuable suggestions, and surprised us with his meticulous understanding of the issue at hand. The Hon. Minister for Transport, Shri A. K. Saseendran, and his predecessor, Shri Thomas Chandy MLA, provided us with all the support and suggestions during the period of our consultancy; they were willing to meet us even at short notice for detailed deliberations. The Hon. Finance Minister, Shri T. M. Thomas Isaac, lent us his counsel as well as financial support from his Ministry towards KSRTC as a breather during the transition period. We thank the Government of Kerala and the Ministers for their extended assistance: their commitment to the cause of saving the public sector is unparalleled in the present day.

We would not have been able to understand the crises facing KSRTC, let alone provide consultancy, without the unstinted help and cooperation of the CMDs of the Corporation during our tenure: Shri M. G. Rajamanickam IAS, Shri A. Hemachandran IPS, Shri Tomin J. Thachankary IPS and Shri M. P. Dinesh IPS. They made sure that we were not lacking with respect to information or logistics. Not

only did they listen to us with keen interest; they constantly apprised us of their initiatives, and gave in their 100 per cent to the Corporation during their respective tenures. We cannot thank them enough for all their hard work and commitment to actualizing our suggestions to the extent they could. KSRTC shall remember their contributions in the years to come.

We also thank Principal Secretary of Transport to the Government of Kerala, Shri K. R. Jyothilal IAS for his continual support. We extend our heartfelt gratitude to the various Executive Directors and Senior Managers at KSRTC for all their assistance in helping us understand its problems and providing us with all the required information as and when we had doubts. Special thanks are due to Shri M. T. Sukumaran and Shri G. P. Pradeep Kumar for all the logistical help, and for being our liaisons with the Management when we were not in town.

We could not have been able to make sense of many of the pressing issues at KSRTC or provide necessary suggestions without the generous contributions of Shri Ch. Hanumantho Rao whose experience and expertise we immensely benefited from, especially in our study of KSRTC's workshops. He travelled to Kerala to help us conduct symposiums, and compile reports on workshop management without any hesitation. He cleared our doubts over detailed phone calls and e-mails even when he could not be present, at any time of the day—all because he believed that public transport systems should continue to thrive. Any amount of gratitude towards him shall be insufficient; nevertheless, we thank him with all our heart.

We thank the various people who have provided us with valuable inputs at different stages of this study, including Prof. V. K. Ramachandran, Vice-Chairman, Kerala State Planning Board; Dr. K. Ravi Raman, Member, Kerala State Planning

Board; and Shri M. P. Sukumaran Nair, former Chairman, Kerala Public Sector Restructuring and Internal Audit Board.

The Trade Union representatives wholeheartedly participated in the workshop organized at the Centre for Development Studies, and mooted their concerns. They were open to our suggestions, and have met us with interest whenever we requested them to—let it be when we sought their cooperation or when we mediated between them and the Management. We extend our gratitude to the Trade Unions for their constant support.

We also thank the managers at various depots and workshops that we had visited, the staff, the workers—all of whom had helped us understand the issue from their perspectives, and listened to us with all ears. We also thank the drivers at the Chief Office who had helped us around various depots, workshops and government offices.

We had received numerous suggestions via post, over phone calls, and in person—from the former and current employees of the Corporation, and the general public. We had also received from individuals and institutions copies of previous studies undertaken by them on KSRTC. Such pervasive interest in the welfare of KSRTC was unexpected when we committed to undertaking this study; we thank them all for all their motivation and help.

Any omission in this list is unintentional and regretted.

KERALA STATE ROAD TRANSPORT CORPORATION: CRISIS AND TURNAROUND STRATEGY

PREFACE

The Kerala State Road Transport Corporation (KSRTC) has been in a grave financial crisis, making recurring losses and being unable to meet its necessary expenses for a while now. The Government of Kerala, by an order dated 24/09/2016, had appointed us as Consultant to study how KSRTC could be restructured by addressing the issues pertaining to its management of operations, finances, human resources, inventory management, amongst others.

After discussing with the Honourable Minister for Transport, senior managers of KSRTC and other stakeholders, we set the following objectives for our study:

1. Analyze the financial and organizational crisis facing KSRTC;
2. Study the operations of the KSRTC, its financial and human resource policies;
3. Suggest changes in the policies of KSRTC to transform it into a viable and profitable organization, meeting its social obligations and providing the state of Kerala with an effective and pervasive public transport system;
4. Suggest financial restructuring of past liabilities and partially funding the past losses; and

5. Suggest organizational development policies to strengthen the managerial human resources of the Corporation, so that KSRTC can face the turnaround challenge.

In February 2017, we presented our draft findings and suggestions to the Chief Minister, the Transport Minister and the Finance Minister in the presence of representatives of the State Planning Board, and Chairperson of the Public Sector Restructuring and Internal Audit Board (RIAB). The idea was that the Management could initiate interim measures and plan a course-of-action even as we update the information and plan out a strategy to overcome the crisis.

The draft report was based on comparative performance data that was of 2012-13 vintage, and KSRTC accounts that had not been audited for 3 years.

In finalizing this report, we have updated the information to more recent operational performance, and have also provided a brief overview of the initiatives taken based on our interim report. The final report also has a new chapter on how to improve the working of depot and major workshops, rationalizing the depots and closing some small and unviable depots; aggregating buses by each manufacturer in few depots to provide scale economies, etc.

In addition, with very weak Management Information System, we have had to struggle to gather detailed operational data, which we supplemented with field visits to depots and workshops. As far as possible, we have tried to benchmark KSRTC's performance parameters with STUs in other neighbouring states. Apart from providing an overview of the financial crisis and the reasons that has caused it, the study has also attempted at suggesting positive changes in the operational, financial and Human Resource (HR) policies; the restructuring of KSRTC to meet its operational and organizational challenges; and, its financial restructuring along with possible ways to fund its past losses. The underlying idea has been to suggest holistic changes in the work culture, operations and management of KSRTC so that it turns into a viable and profitable organization.

In finding possible solutions, we were assisted by Shri Ch. Hanumantha Rao, former Senior Manager of APSRTC and a well-known road transport expert.

The Road Forward

Since February 2017, KSRTC has had four Managing Directors, while the Transport Department has had three changes at the level of the Minister for Transport. Based on our suggestions, few senior Finance and Accounts Managers were inducted, half of whom have already resigned from the Organization. Induction of senior operational managers, IT experts and HR professionals, etc. has not made much progress. Despite changing Chief

Executives and weak senior management team, some initiatives were taken to implement several of our suggestions by the successive Managing Directors. Even these halfhearted and un-coordinated measures have shown significant results, with some improvements in asset utilization and improved daily collections. We list some of them:

i) Many Employees on long-leave (for some several years) have either joined back or have been dismissed or resigned from KSRTC rolls.

ii) Analysis of daily earnings per bus was made the focus of route-rationalization and some incentives provided to the staff to enhance daily collection.

iii) Five zones were reduced to three zones, without too much clarity on the role of Zonal Managers and Zonal Offices.

iv) Single duty pattern was implemented in 2018, and the number of multiple duty schedules was brought down to less than 20 per cent. It will be unfortunate if this is reversed and whittled down under pressure from Trade Unions.

v) With single duties, several schedules have been curtailed and redesigned as they were previously just meant to justify double duty patterns. Simultaneously there is effort to rationalize route-planning so that schedules that fetch higher earnings are prioritized. All `paper schedules' have been abolished.

vi) Some progress has been made in recruiting and deploying driver-cum-conductors on long distance buses so that the drivers can rest through rotation.

vii) There has been some improvement in workshop processes and management, resulting in shorter durations for overhauls, CF replacements, etc. Engine overhaul is now concentrated at only three large workshops, providing for better inventory management. Dock maintenance is now done only at nights so that buses are ready for operations next morning.

viii) KSRTC's borrowings have been rationalized with help of the Finance Secretary to the Government of Kerala, and the cost of borrowing has been reduced from 13.5 per cent to less than 10 per cent.

However, all these initiatives are not enough to turnaround KSRTC's fortunes. With rotating CEOs, a clear turnaround strategy is yet to be implemented.

The most serious and glaring omission is the continuation of the archaic governance structure. KSRTC does not have a professional Board that can either help in setting a strategic direction, or supervise its implementation. A Board consisting of transport, financial and management experts that can assist in such a strategic thrust as well as evaluate the performance of the Chief Executive is absolutely essential

and should be the first task if Government of Kerala is serious about turning around KSRTC.

In our final report, we have suggested a Dual Board Structure with the current board consisting of trade unions, elected representatives, consumers, etc., to be retained and renamed as the KSRTC Advisory Board that will articulate stakeholders' expectations to the Management, and hold it accountable towards fulfilling them. Such a Board shall meet once in four months and seek review of progress made in meeting stakeholder expectations.

The Board of Directors consisting of experts, shall have the powers to suggest and supervise KSRTC's strategic direction and implementation, as well as periodically evaluate its operational and financial performance, authorize any borrowings that may be necessary, approve the accounts and the financial statements, and evaluate internal audits and controls.

The Board shall also keep track of improvement in operations, fleet utilization and earnings; and monitor the cash flows and liabilities so that the cash hemorrhaging comes to end at the earliest. Without such close supervision, it is unlikely that KSRTC can turnaround.

We remain optimistic that all stakeholders can be motivated to work together to change the fortunes of KSRTC, and make it an example of viable road transport that others will emulate.

27/02/2019

Thiruvananthapuram

Prof. Sushil Khanna

CHAPTER – 1

AN ANALYSIS OF THE FINANCIAL CRISIS FACING KSRTC

The Kerala State Road Transport Corporation (KSRTC) has been in grave financial crisis in the last few years. With very high debt and pension liabilities coupled with stagnant revenues and weak margins, KSRTC has found it difficult to make essential payments towards salaries and fuel expenses. KSRTC has been facing severe cash crunch due to unviable functioning and unplanned borrowing to meet the rising deficits. Lack of government support to meet the erosion of the net worth has forced the Corporation to resort to increasing borrowings at market rates meant for subprime borrowers. This chapter aims at providing a summary of the financial crisis facing KSRTC.

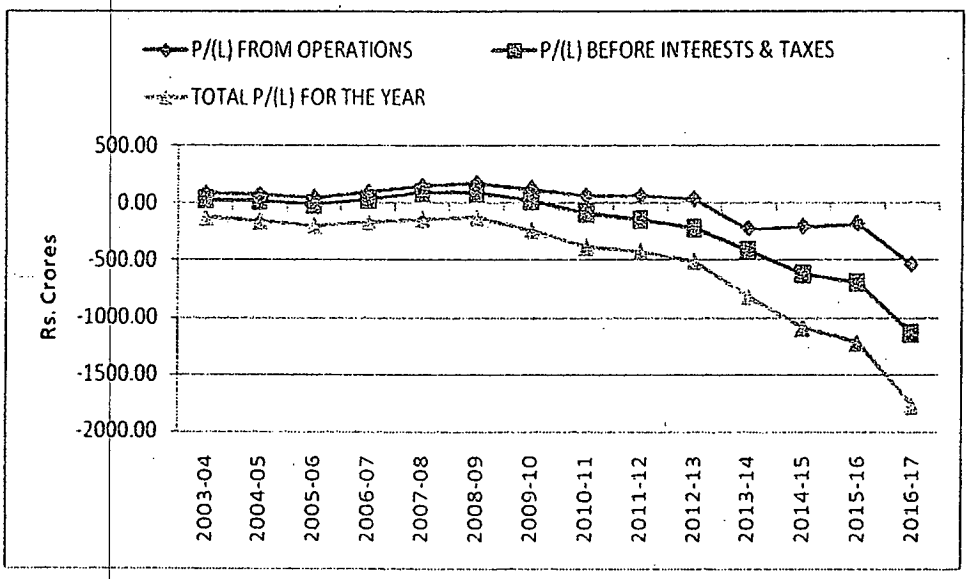
TABLE-1.1: Losses in KSRTC (in Rs. Crores)

	LOSS FOR THE YEAR	ACCUMULATED LOSSES
2003-04	120.50	1,272.19
2004-05	151.04	1,422.26
2005-06	191.90	1,618.10
2006-07	155.64	1,777.50
2007-08	136.39	1,368.89
2008-09	117.12	1,483.31
2009-10	232.90	1,721.26
2010-11	379.32	2,102.88
2011-12	416.64	2,517.67
2012-13	505.46	3,025.90
2013-14	808.82	3,609.79
2014-15	1,089.25	5,041.06
2015-16	1,219.88	6,260.96
2016-17	1,770.61	8,031.56

Source: KSRTC

The losses incurred by the Corporation have been increasing over the years, accumulating to over Rs. 8,000 crores at present—which is more than thrice the accumulated losses five years ago.

Fig. 1.1: Profit/(Loss) of KSRTC – Different Measures



(1) As the chart above shows, KSRTC was just able to meet its direct operational expenses including fuel, spares and maintenance and direct wages till 2012-13. However, it is no longer able to do so. Hence for the last 4 yeas, its current stream of revenue is inadequate even to cover its direct operational expenses, let alone its pension liabilities and interest costs.

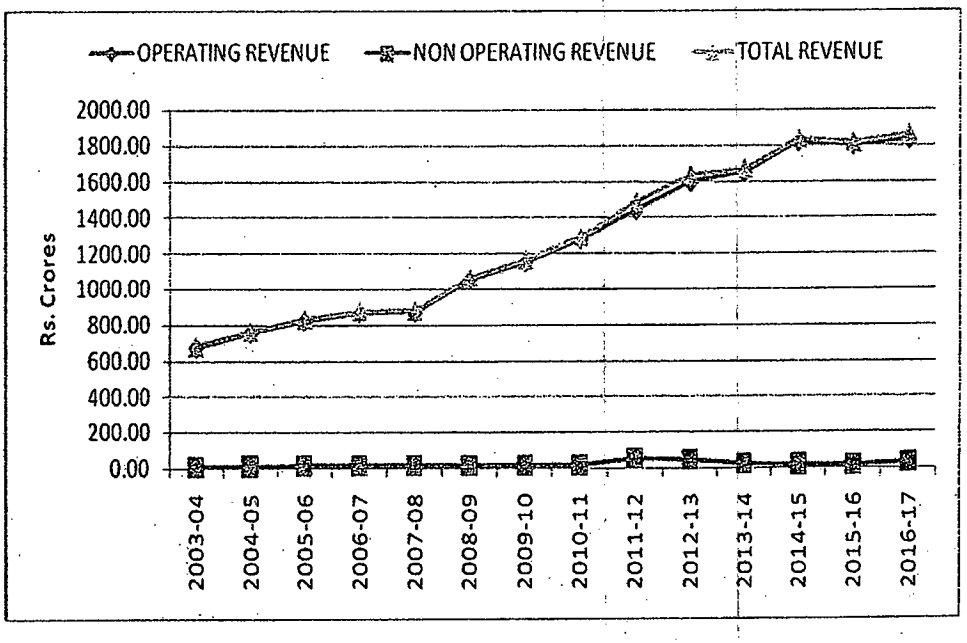
(2) KSRTC has a large pension liability, and has been unable to meet it from its small surplus/deficit in most years. The situation is aggravated since 2009-10, when losses due to increasing pension liability ballooned and were not funded by the Government. As these deficits became larger every year, the borrowings from banks on onerous conditions also increased. This increased the losses every year as external borrowings and interest costs skyrocketed. Currently, all of KSRTC's resources are pulled to meet the salaries and other essential expenses like fuel. Based on the final accounts (provisional) for 2016-17, we figured out that KSRTC now has an annual operational deficit. A representative

picture of the trap that KSRTC has found itself in can be given using the figures from the cash flow for the financial year. (These figures are approximated and rounded off.)

a) Inflows: total revenue = Rs. 1,860 crores
b) Fuel expenses (on cash & carry basis) = Rs. 895 crores
c) Revenues apportioned to the escrow accounts of lenders = Rs. 500 crores
d) Expenses on spares for repairs = Rs. 170 crores
e) Other miscellaneous expenses = Rs. 130 crores
f) Cash remaining with the Management for salaries etc.
[a-(b+c+d+e)] = Rs. 165 crores

A look at the growth in revenues, expenses and their constituents over this period gives a picture of the financial weaknesses of KSRTC.

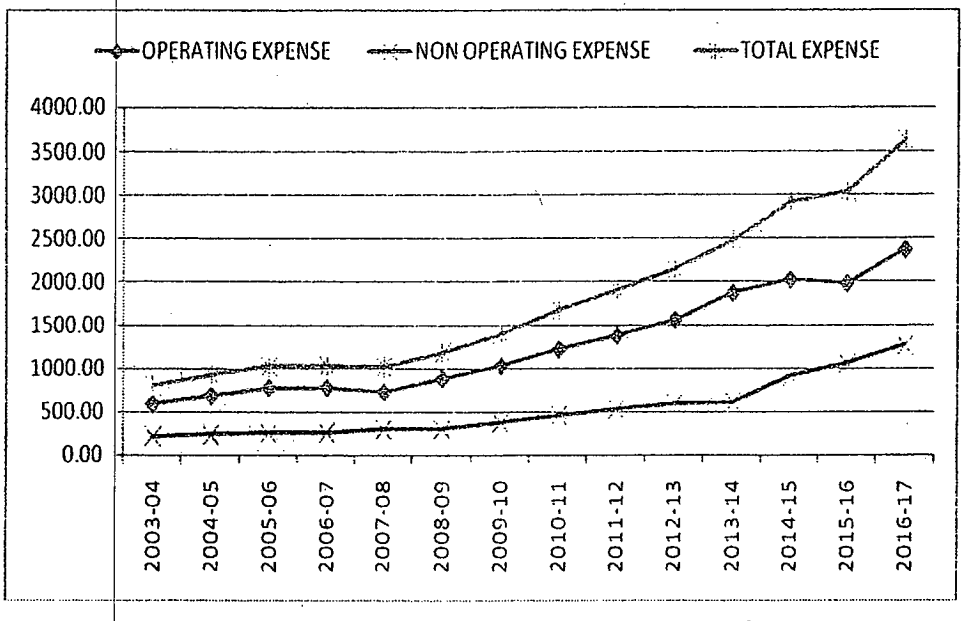
Fig. 1.2: Growth in KSRTC's Revenues



(3) The bulk of the total revenues of the Corporation are from operations. Non-operating revenue is negligible throughout, despite creation of assets that can fetch rental incomes. Profits from operations alone are also negligible, and, at

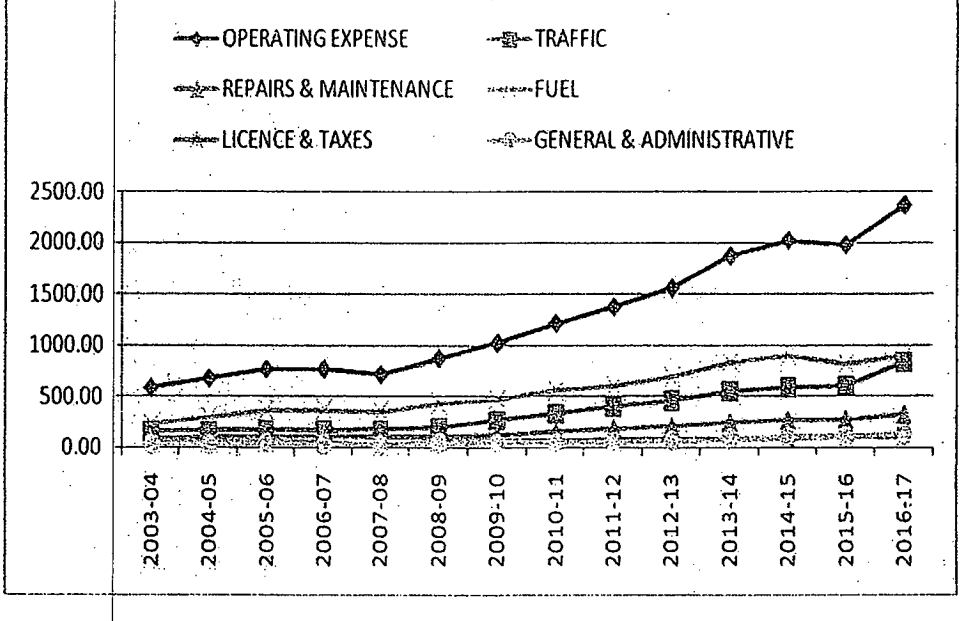
times, negative—an indicator of inefficient manpower and fuel utilization (which shall be discussed in Chapter-2).

Fig. 1.3: Growth in KSRTC's Expenses



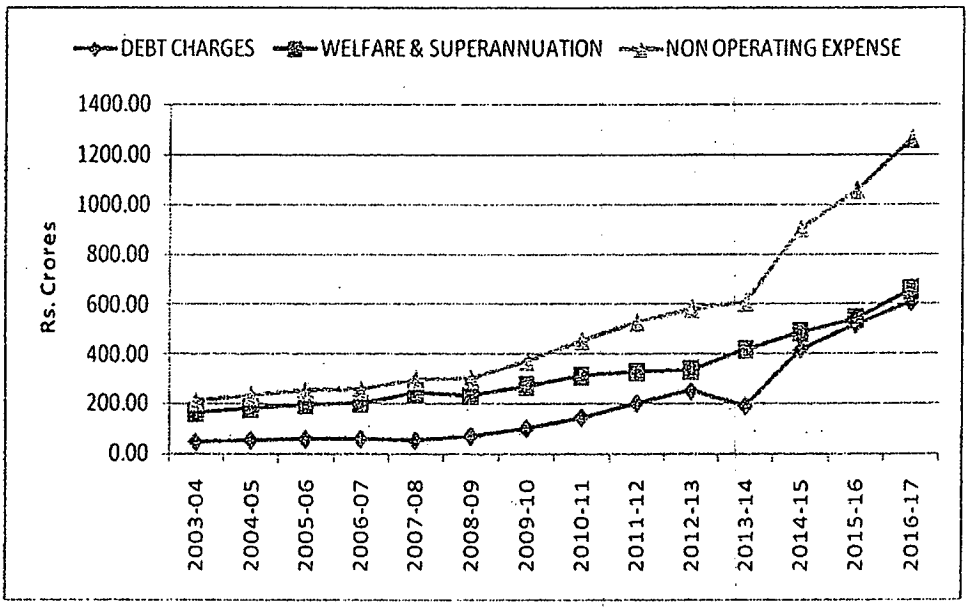
(4) Both operating and non-operating (interests and pension payments) expenses are growing steadily since 2008-09. The growing share of non-operating expenses (around 35% in 2016-17) in the total expenses of the Corporation is worrisome.

Fig. 1.4: Growth in KSRTC's Operating Expenses



(5) Fig. 1.4 gives a sketch of the growth in various expenses incurred towards operations in KSRTC. (While the total operational expense for each year includes depreciation as well, the figure does not show the growth in the amount earmarked on account of depreciation.) As is decipherable, half of the operational expenses are paid towards the consumption of fuel, making fuel efficiency a critical area of the study.

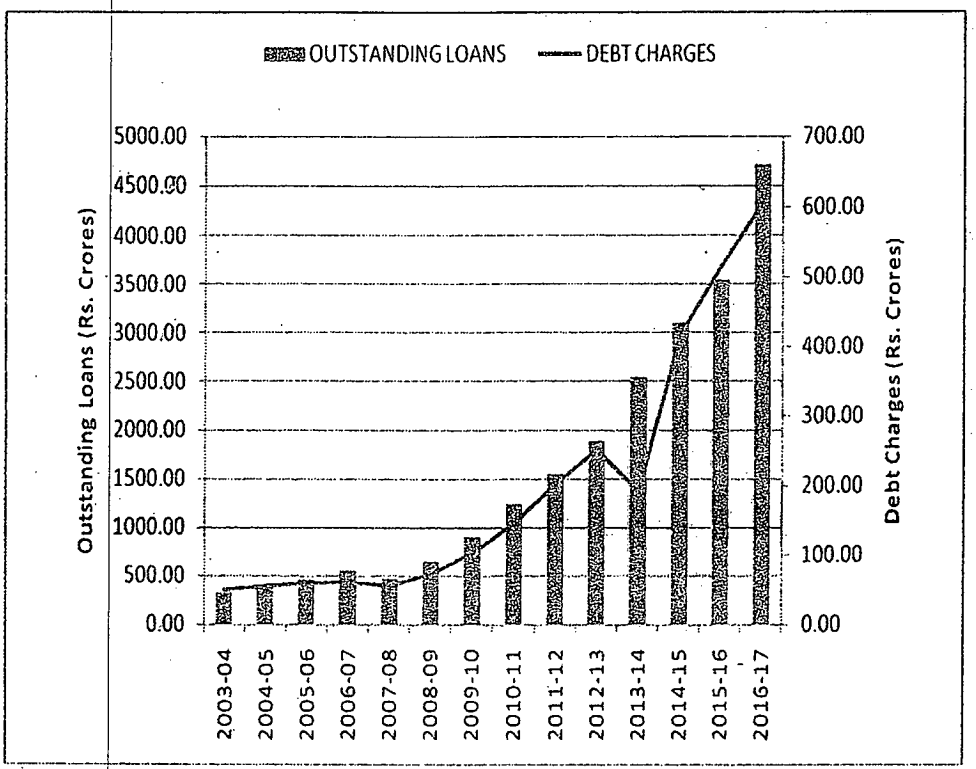
Fig. 1.5: Growth in KSRTC's Non-Operating Expenses



(6) The non-operating expenses include debt charges and pension payments—factors that have led the Corporation to huge financial turmoil. In 2012-13, KSRTC's EPKM (earnings per kilometre) was Rs. 30.75 of which Rs. 3.96 went towards interest payments. It incurred costs of Rs. 39.71 per KM, and 9.97% of total costs were paid towards interests. KSRTC's obligation to its pensioners is approximately Rs. 500 crores per annum and, is equal to roughly 70% of its current wage bill.

(7) The increased borrowings have led KSRTC in a severe debt trap. The figure below shows the build-up of the total outstanding debt in recent years along with the increasing finance costs, i.e., interests. It is to be noted that by March 2016, the KSRTC borrowings were at Rs. 3,144.35 crores. Further, by September 2018, there has been an additional borrowing of around Rs. 1,945 crores.

Fig. 1.6: Outstanding Loans & Interest Costs of KSRTC



The above does not take into account the total outflow on account of debt servicing, including repayments of principal. However, as mentioned earlier, KSRTC has negotiated a consortium loan with lower interest and longer tenure with the help of the Finance Department.

TABLE-1.2.A: Outstanding Loans of KSRTC (in Rs. crores) as on 30 September 2018	
	Amount
Loans from Government of Kerala (till 16.10.2018)	1,903.44
Consortium of banks*	3,085.37
(a) SBI	*995.22*
(b) Canara Bank	*497.75*
(c) Vijaya Bank	*498.49*
(d) KTDFC	*944.55*
(e) Lakshmi Vilas Bank	*149.36*
TOTAL	**4,988.81**

*Total tenure = 20 years; interest = 9.20%; EDI (through escrow accounts) = Rs. 86.24L
Source: KSRTC

TABLE-1.2.B: Outstanding Loans of KSRTC (in Rs. Crores) as on 31 March 2016			
	Principal	**Interest**	**Total**
Government of Kerala*	480.82	67.29	548.11
KTDFC	435.63	-	435.63
HUDCO	400.87	-	400.87
LIC	65	33.26	98.26
KSTW Co-operative Society	7.34	-	7.34
Palakkad District Co-operative Bank	193.42	-	193.42
Ernakulam District Co-operative Bank	114.38	-	114.38
KSPIFC	47.35	-	47.35
Consortium of banks	1,298.99	-	1,298.99
TOTAL	**3,043.80**	**100.55**	**3,144.35**

*Excludes Rs. 1,090.75 crores converted as Equity Share Capital

Source: KSRTC

(8) The borrowings from the banks and financial institutions to meet the current expenses of the Corporation have led KSRTC into the severe debt trap that it is in today. As KSRTC has unviable operations and is not creditworthy, the only way it can borrow from banks is either with government guarantees, or by pledging its advance revenues to the lender through an escrow account. Since no long-term plan to turnaround the operations of KSRTC has been formulated or implemented, increasing borrowings with onerous conditions has further reduced the maneuverability of the Corporation.

(9) For a Corporation with high levels of non-operating expenses, just breaking even in operations is not sufficient for the overall health of the organisation. Consider that 28% of the total staff in 2012-13 was empanelled: their replacement by staff selected Kerala Public Service Commission due to the High Court Order will lead to an increase in the payments towards salaries and pensions, thus aggravating the financial crisis in KSRTC.

Fig. 1.7: KSRTC's Profit/(Loss) from Operations

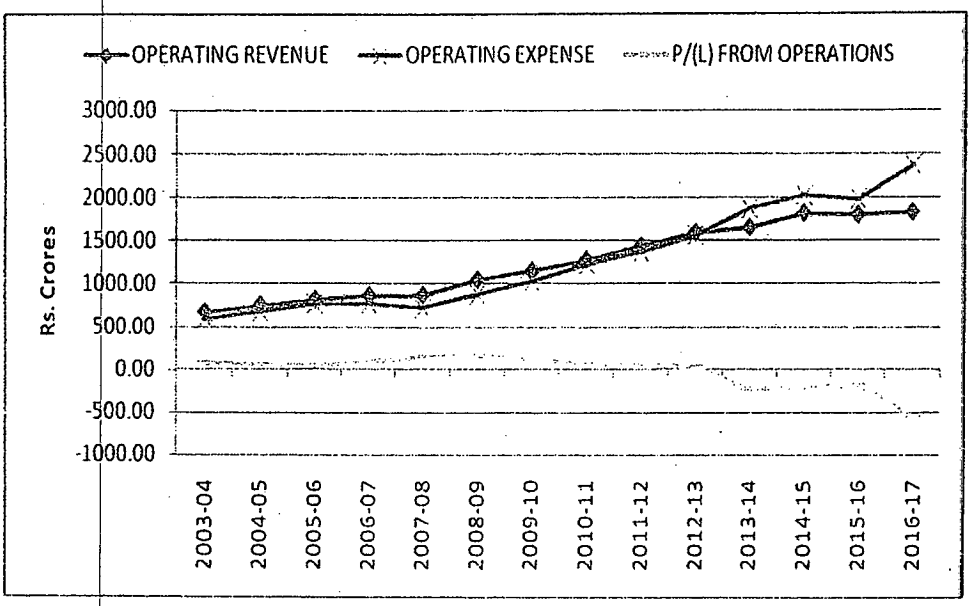
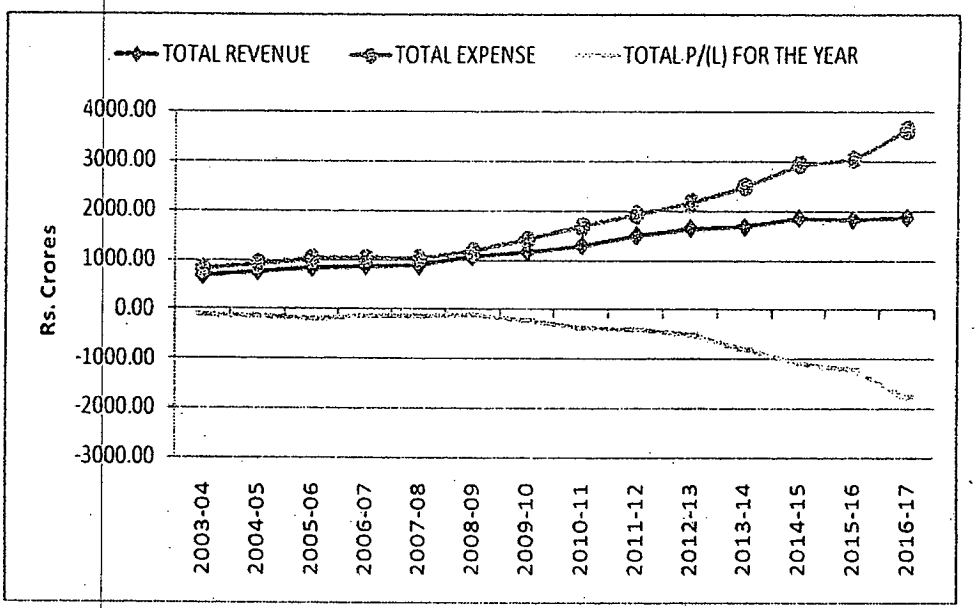


Fig. 1.8: KSRTC's Total Profit/(Loss)



(10) The gap between the total of revenues and expenses is widening at an increasing rate since 2009-10. The Net Loss for 2016-17 is Rs. 1,770.61 crores, and that puts an onus on KSRTC to increase its revenues considerably, to break-even. This has put KSRTC at a constant risk of defaulting on salary and pension payments.

Our strategic audit of KSRTC's operations and organizational factors that influence the operations—that is to be discussed in the following chapters—is made by keeping in mind the basic economic principle that, for an organization to thrive in the long run, revenues must be optimized and expenses brought down. That has been the rationale behind doing the exercise of overviewing the losses and the understanding the impact of revenues and expenses on these recurring losses.

Notes

- Operating expenses include traffic expenses, repairs & maintenance expenses, fuel expenses, license & taxes on vehicles, general administrative expenses and depreciation.
- Traffic expenses, repairs & maintenance expenses and general & administrative expenses include salaries & allowances and other expenses under the respective departments. General & administrative expenses also include rent, rate & taxes; staff car & van expenses; insurance; maintenance & repairs to buildings; and heating, lighting & water expenses.
- Non-operating expenses include debt charges and welfare & superannuation charges towards pensions.
- Profit/(loss) from operations = (Operating revenue – Operating expense). Similarly, Profit/(loss) for the year = (Total revenue – Total expense); this does not include prior period adjustments. Profit/(loss) before interest & taxes = [Profit/(loss) from operations – Debt Charges].
- Accumulated surplus/(deficiency) is the balance amount carried forward from Net profit/(loss) accounts.

(All Figures in this chapter are made from the Profit & Loss accounts and Balance Sheet of KSRTC from 2003-04 to 2016-17; the estimates for 2015-16 and 2016-17 are provisional.)

CHAPTER – 2

STRATEGIC AUDIT OF KSRTC: UNDERSTANDING THE CRISIS

Any organization that is unable to meet its direct expenses and statutory obligations as well as liabilities to lenders must be faced with deep-rooted operational and organizational issues. To understand the roots of the crisis, we have to understand the operations of KSRTC and its use of organisational assets and capabilities.

Why is KSRTC unviable when private bus operators in Kerala seem to make substantial profits on their operations, while charging the same fares? Is it because of the financial burden imposed on KSRTC due to its social service obligations, like a large monthly pension liability, free passes to school students and providing access to remote areas?

Or, is it unviable due to operational inefficiency or organizational challenges? Does the organization use its resources and assets efficiently, or is it bereft of capabilities and resources needed to run road transport in a viable and sustainable manner?

Does the Corporation have a clear and viable strategy to meet customer and stakeholder expectations and to meet its obligations?

To answer these questions, we carried out extensive discussions with managers, employees and other stakeholders. In addition, we reviewed the working of the Corporation. The latter was made difficult due to the lack of a proper Management Information System (MIS) in KSRTC, the annual accounts

that have not been audited for several years, an almost complete absence of computerization and unclear lines of authority and responsibility.

We present here the key findings of the Strategic Audit that we carried out in KSRTC and regarding its operations. The thrust of the analysis is on those operational and managerial areas that are vital as far as the turnaround strategies are concerned. The following tables provide a comparative overview of the physical performance of KSRTC vis-à-vis other STUs in South India. This chapter tries to understand the crisis in KSRTC by providing reasons for its poor performance in fleet utilization, fuel efficiency, staff productivity and vehicle productivity as evident from these tables; and overview the workshop performance and organizational bottlenecks that have either caused the deepening of the crisis or its non-redressal.

TABLE-2.1: Comparative Picture of Physical Performance: Southern STUs (2015-16)

Name of the STU	Average Fleet Held	Off-road Buses	Spare Buses	Fleet Utilization (%)	Over-aged Buses (%)	Passengers Carried per Bus/Day	Occupancy Ratio (%)
APSRTC	12850	81	838	92.80	*15.95	528	70.97
KnSRTC	8172	395	376	90.60	15.90	374	69.10
KSRTC	**5451**	**736**	**192**	**83.00**	**0.00**	**632**	**96.87**
BMTC	6439	379	204	90.90	14.40	866	121.74
NEKnRTC	4447	227	237	89.60	12.14	339	63.37
NWKnRTC	4736	78	100	96.20	20.20	497	58.43
TSRTC	11398	12	1007	91.10	*13.48	869	73.22
MTC (CNI)	3832	95	500	84.50	72.71	1508	76.22
SETC (TN)	1182	69	60	89.09	78.30	70	81.75
TNSTC (CBE)	3331	66	288	89.40	49.14	858	68.18
TNSTC (KUM)	3820	158	371	86.20	52.93	907	70.14
TNSTC (MDU)	2835	81	295	86.74	44.47	714	70.53
TNSTC (SLM)	2165	55	68	94.32	67.85	742	62.40
TNSTC (VPM)	3680	148	117	93.53	54.00	670	67.47

* Only pertains to District Ordinary buses; figures for Ordinary buses are 1.23 (APSRTC) & 9.06 (TSRTC).
Source: State Transport Undertakings - Profile & Performance (2015-16)

TABLE-2.2: Comparative Picture of Physical Performance: Southern STUs (2015-16)						
Name of the STU	Staff/Bus Ratio	Staff Productivity (KMs/Staff/Day)	Vehicle Productivity: on-road buses (KMs/Bus/Day)	Vehicle Productivity: buses held (KMs/Bus/Day)	Cancelled KMs to Scheduled KMs (%)	Fuel Efficiency (KMs/litre of HSD)
APSRTC	4.85	70.00	373	346	4.39	5.19
KnSRTC	4.93	71.50	358	325	4.81	4.83
KSRTC	**8.37**	**36.80**	**332**	**276**	***22.78**	**4.15**
BMTC	5.55	34.40	209	190	10.72	3.76
NEKnRTC			331	296	5.86	5.15
NWKnRTC	4.81	75.10	351	338	2.60	5.18
TSRTC	5.33	55.00	327	298	3.74	5.10
MTC (CNI)	6.20	38.90	299	253	4.81	4.36
SETC (TN)	6.47	93.90	608	541	0.38	5.19
TNSTC (CBE)			448	400	1.19	5.16
TNSTC (KUM)			531	457	0.99	5.62
TNSTC (MDU)			447	387	1.85	5.38
TNSTC (SLM)			529	499	1.06	5.55
TNSTC (VPM)			512	579	1.58	5.59

* Our own calculation from data provided by EDPC, KSRTC

Combined Staff/Bus Ratio & Staff Productivity for all 7 STUs in Tamil Nadu are 6.26 & 68.30 KMs respectively.
Source: State Transport Undertakings - Profile & Performance (2015-16)

Fleet Utilization

TABLE-2.3: Fleet Utilization in KSRTC					
Year	Total	Operated	Off-Road	Spare	Fleet Utilization (%)
2005-06	4,724	3,858	766	100	81.67
2006-07	4,666	3,761	807	98	80.60
2007-08	4,640	3,780	704	156	81.47
2008-09	4,999	4,210	623	166	84.22
2009-10	5,380	4,611	616	153	85.71
2010-11	5,640	4,818	685	137	85.43
2011-12	5,810	4,919	730	161	84.66
2012-13	6,154	5,141	738	275	83.54
2013-14	6,150	5,168	698	284	84.03
2014-15	6,011	4,977	837	197	82.80
2015-16	6,148	5,008	914	226	81.46
2016-17	6,629	5,071	1,230	328	76.50
2017-18	6,354	5,147	898	309	81.00

Source: KSRTC

The average fleet utilization in KSRTC is way below that of other STUs in the neighbouring states. The major reasons for poor fleet utilization are: -

a) Long time taken for overhauls: Buses are off-road for long periods for repairs in workshops. Delays are caused by lax work norms, archaic technology (for example, hand-painting of buses), poor inventory management, lack of spare parts and absence of modules that need replacement. The loose work norms and the resultant work culture in all workshops have made possibilities of fleet optimization bleak.

b) Manpower-Deployment mismatch: A major reason for cancellation of schedules due to reasons apart from buses being off-road owing to workshop repairs and buses undergoing refurbishing for the Certificate of Fitness appraisal is mismatch between the demand and deployment of staff in units. For example, a schedule may be cancelled when the driver goes on leave whereas another one operating from the same depot may be cancelled for want of conductor. This is even though the staff-bus ratio in 2015-16 is as high as 8.37. To make matters worse, there is excess of staff in some depots while there is shortage in the neighbouring depots, giving room for perennial cancellations in schedules despite buses being roadworthy.

c) Absenteeism: In addition, KSRTC suffers from excessive absenteeism. Unannounced absence of crew means that the Depot Manager cannot muster adequate crew at short notice to run the available bus. Schedule cancellations on account of unavailability of crew vary between 150 and 250 schedules per day.

d) Paper schedules: The average percentage of schedules cancelled in KSRTC in 2015-16 was as high as 23.07, and this had been rising over the years. *(See Table-2.4.)* The secular rise in schedule cancellations is due to the increase in what are called in KSRTC as 'paper schedules' or schedules that exist only in the books. These are schedules that have not been operated for years, but have not been scrapped from the books due in large part to the reasoning that a schedule existing in the book would accommodate idle manpower. It is learnt that KSRTC had categorized such schedules and that those that had been non-functional for above one year—there was also a category of schedules that had been scandalously non-functional for over five years—have been scrapped in October 2016. Notwithstanding this positive step taken by the Management, this needs to be mentioned not only because we are doing a historical audit of the operational inefficiencies and losses, but also so that such a practice should never get find its way back into the Organization. Nevertheless, there are still a lot of schedules that operate for less than 100 days in a year—many of them operating just a day or two in a whole year—just so that they could evade categorization under 'paper schedules'.

e) Spare Buses: KSRTC maintains a very large fleet of so called ***'spare buses'***—one in every eighth bus is classified as spare. Though the Motor Vehicle Act 1988 provides for spare buses (which, in Kerala, pay lower road taxes as they are replacement buses), they are not meant to 'idle,' but to help the Corporation maintain its schedules even in the face of breakdowns. As vehicle maintenance and turnaround has improved, several STUs now maintain only a small number of buses as 'spare.' In Tamil Nadu, only 5 per cent of buses are treated as spare buses.

TABLE-2.4: Schedule Cancellations in KSRTC				
Year	Schedules Sanctioned	Schedules Operated	Schedules Cancelled	Schedule Cancellation (%)
2005-06	4,423	4,058	365	8.25
2006-07	4,514	4,132	382	8.46
2007-08	4,599	4,203	396	8.61
2008-09	4,697	4,277	420	8.94
2009-10	4,812	4,323	489	10.16
2010-11	5,102	4,473	629	12.33
2011-12	5,315	4,592	723	13.60
2012-13	5,501	4,613	888	16.14
2013-14	5,604	4,568	1,036	18.49
2014-15	5,659	4,493	1,166	20.60
2015-16	5,743	4,418	1,325	23.07
2016-17	5,689	4,558	1,131	19.88
2017-18	5,795	4,602	1,193	20.59

Source: KSRTC & Our Calculations

Fuel Efficiency

KSRTC's fuel efficiency is the lowest among the southern STUs that operate both rural and urban areas. It covers only 4.15 kilometres per litre of HSD while in other STUs, consumption of one litre of HSD guarantees above 5 kilometres of operation. It has been noted that there is no monitoring of the drivers' fuel usage, let alone corrective mechanisms.

Staff Productivity

In 2015-16, when the staff-bus ratio was as high as 8.37, the productivity of a staff was a meagre 36.8 km/day, compared to 70 km/day for APSRTC, 71.5 km/day for KnSRTC and 93.9 km/day for SETC. As manpower estimates are determined on the sanctioned schedules and not on the fleet size, an average

schedule cancellation of 23.07% means that as much operational staff is under-utilized (assuming nearly all vacancies are filled). It is to be noted that there has been a rise in schedule cancellations—and, thereby, in staff under-utilization—by 15 percentage points in the last decade *(See Table-2.4).* The following are the major causes of declining staff productivity:-

a) Duty patterns: Unlike any other STU, KSRTC offers multiple duties in a single day. Such a duty pattern implies that some crew members drive buses for more than 8 hours a day in contravention of the Section 13 of the Motor Transport Workers Act. In other words, while double duty pattern may, in some cases, have less than 8 hours of steering duty, triple duty and above are all clearly in contravention of the Act. As of 2016, nearly 91% of the schedules offered double duties to the staff while another 8% assigned 3 to 6 duties for each operated schedule; less than 1% of all schedules in KSRTC followed single-duty patterns. Apart from causing huge financial burden for the Corporation due to the additional staff needed to accommodate such duty patterns, it had also led to irrational scheduling and unprofitable trips. Multiple duties meant that most operating staff are required to present themselves only 3 days a week or less, leading to shortage of staff on other days. Thus, despite high manpower, KSRTC is unable to operate its entire fleet that is roadworthy or utilize its staff efficiently due to the duty patterns.

TABLE-2.5.A: Duty Patterns in KSRTC as on October 2018

Duties per Schedule	1	1.5	2	2.5	3	3.5	4
Schedules - Drivers	5,847	266	954	77	168	47	2
Schedules - Conductors	5,847	266	954	77	130	27	2

Source: KSRTC

TABLE-2.5.B: Duty Patterns in KSRTC as on December 2016						
Duties per Schedule	**1**	**2**	**3**	**4**	**5**	**6**
Schedules - Drivers	52	5,000	358	64	23	1
Schedules - Conductors	52	4,997	354	66	23	4

Source: KSRTC

b) Loose work norms: Apart from drivers, conductors and mechanics, the work norms of other staff including Inspectors, Station Masters and Vehicle Supervisors are loose and still not adhered to. Even Administrative Officers and ministerial staff have very loose norms. As discussed earlier, the man-hours required for bus body overhauls and overhaul of units are higher than industry norms in KSRTC. For example, new bus body construction takes 2,600 to 2,800 manhours in KSRTC as against industry norms of 1,507 to 1,658 manhours.

c) Unauthorized long leaves & absence: KSRTC has a disproportionately large number of staff on unauthorized or falsely authorized long leave. In 2016, such staff—many of whom had gone abroad to work in the Middle-East, or were running their own private businesses—exceeded 3,500. Many of them would join few years before retirement to claim pension and other retirement benefits. This rendered all manpower planning, recruitment and skill development useless.

d) Empanelled staff: KSRTC faced manpower shortages due to unauthorized leaves, but was unable to declare such positions open for recruitment. Hence temporary empaneled staff came to occupy an important place in the work force. In March 2016, 26% of the total staff in KSRTC was empanelled—nearly half of whom were conductors, followed by drivers and mechanics—signalling at the high incidence of

long leaves in the Corporation, as well as loose manning norms agreed to with the trade unions. As of 01 November 2016, 7.6% of operational staff and 5% of mechanical staff were on long leave or leave without allowance (L.W.A). These factors cause schedule cancellations due to unavailability of operational staff and longer overhaul periods at the workshops, respectively.

TABLE-2.6: Summary of Permanent Staff in KSRTC as on 01/11/2016

STAFF TYPE	IN THE ROLL	LONG ABSENT	L.W.A	SUSPENSION	DEPUTATION	NET AVAILABLE
Ministerial	2,297	75	58	7	14	2,143
Mechanical	5,566	114	164	1	11	5,276
Operating	27,045	1,591	466	28	73	24,887
TOTAL	**34,908**	**1,780**	**688**	**36**	**98**	**32,306**

Source: KSRTC

Vehicle Productivity

In 2015-16, an on-road bus in KSRTC ran an average of 332 kms in a day which is below the industry average. The bus productivity in APSRTC is 373 km/day, while in SETC, it is as high as 608 km/day. For the total fleet held in KSRTC, the bus productivity is only 276 km/day. The reasons for unfavourable indicators of vehicle productivity are:-

a) Irrational running times: The running times of schedules are thus designed so as to make room for double duty patterns in operations, resulting in longer running times for lesser distances.

b) Trip curtailments: It is noted that certain trips within a schedule are cancelled without prior notice—a fact not captured in schedule

cancellations but has a bearing on vehicle productivity. Apart from breakdowns and accidents, traffic congestions or no valid reasons are often cited.

Route Rationalisation

Another major cause of loss in revenue concerns with rationalising the routes on which operations are carried out at the depot level. This is mainly due to:-

a) Sub-optimal route selection, and

b) Operating on low revenue routes (C&D) while foregoing operations on more profitable routes (A&B).

This results in low revenue per bus per day. Though many schedules earn higher than Rs. 15,000 daily, about 3,300 or 64 per cent of the schedules earn less than Rs. 10,000 a day.

Workshop Audit

KSRTC has five workshops employing nearly 2,000 workers. In addition, most depots have workshops for immediate repairs with another 5,800 workers. The role of these workshops is to ensure that the maximum number of fleet is made available for operations in roadworthy conditions, undertake routine overhaul needed for creditworthy certification and also build bus bodies on new chassis for the Corporation. Like in operations, restrictive work practices along with ineffective management and controls have resulted in the poor utilization of workshops, their equipments and manpower. Over the years, the norms for workshop activities have evolved through bargaining between the Trade Unions and the Management; and are far below the norms in other STUs or in the private sector workshops. Thus, the new bus-body building norm

varies from 325–350 man-days compared to 200 in APSRTC and 140 in private workshops. The time required, as per norms, for tyre-retreading vary between 6 for permanent employees to 12 for empanelled employees which is both unethical and signalling at inefficiency. Though the Central Institute of Road Transport (CIRT, Pune) provides for accreditation of body building workshops across the country, only one KSRTC workshop is accredited. What is more, the workshops use outdated equipments which should be in museums and have archaic practices like painting buses with brushes. The money provided in the State Budget and from the State Planning Board for workshop modernization has been continuously diverted for other needs. The workshops are meant to maintain regular buses, refurbish them and keep them roadworthy. Because of lax work norms, poor inventory management and lack of planning, the turnaround time of any bus varies from 2 to 3 weeks if involved in accident. The inefficiency of the workshops is obvious from the fact that approximately 15% of the buses are off-road, and are major cause of the crisis at KSRTC.

Management Information System

Many of the problems faced by KSRTC are not identified, let alone addressed, due to a lack of proper Management Information System (MIS). An effective MIS presupposes proper upkeep of accounts and their computerisation, as well operational data, essential for monitoring and enhancement of productivity.. The absence of MIS in an organisation of the scale of KSRTC is due to:-

a) Lack of accounts & accounting system: KSRTC's accounts are poorly maintained due to a lack of accountants at the Corporation, non-adherence to proper accounting practices and non-compliance to accounting standards; this has made informed decision-making difficult.

b) Lack of computerisation: Lack of computerisation from the lowest to the highest unit in KSRTC has not only led to higher staff ratios, but also to long delay in finalising the accounts. Absence of computerisation also means that leakage will take a long time to be detected – often years later when accounts are finalised and audited. Though KSRTC has introduced partial mechanisation (like introduction of GPS systems in buses), these are not integrated with other operational parameters.

c) Lack of managerial & administrative talent: Many of the required critical management positions have been either not created or left vacant; and wherein the positions are filled via restrictive agreements with employees. Almost all senior positions in KSRTC are today manned by people who began their carers either as drivers or conductors. Though there will always be talented individuals, capable of greater responsibility, it is difficult to accept that so many managerial positions, all depot managers, and senior positions even up to the level of executive director have people with adequate qualifications. In case the corporation wants to provide opportunity for career advancement, the internal staff must compete with outside talent for each managerial position. This lack of necessary qualifications and ambiguity regarding the functional roles have led to poor judgement or indecisiveness on the part of the Management. Most Depot Managers are incapable of route planning or of manning a depot as a profit centre.

Summary

The crisis in KSRTC is largely a result of poor operational efficiency. This low efficiency and productivity is a result of restrictive agreements with workers and employees thanks to which bulk of them work only for 3 days in a week.

There is also no monitoring of manpower requirements, absenteeism, schedule cancellations, fuel consumption etc. Depots and workshops alike portray a dismal picture of how not a work environment ought to be. Operations are inefficient, and practices unhealthy. The weak operational controls, the lack of budgetary targets as well as monitoring and the total absence of MIS have made it difficult for the Management to identify the problems and take remedial measures.

KERALA STATE ROAD TRANSPORT CORPORATION: CRISIS AND TURNAROUND STRATEGY

Sushil Khanna

(with the able assistance of Mr. Thomas Mathew)

(Submitted to the Government of Kerala

on 27 February 2019)

ACKNOWLEDGEMENTS

It would have been nearly impossible to submit this report on our two-year-long study on the issues facing KSRTC without the constant support of many a people who believed in the potential of the Corporation. We do not think that a list of acknowledgements could be exhaustive enough to thank all the people who had contributed to our study.

The Hon. Chief Minister of Kerala, Shri Pinarayi Vijayan, not only attended our detailed presentation with keen interest albeit his packed schedule; he gave us certain valuable suggestions, and surprised us with his meticulous understanding of the issue at hand. The Hon. Minister for Transport, Shri A. K. Saseendran, and his predecessor, Shri Thomas Chandy MLA, provided us with all the support and suggestions during the period of our consultancy; they were willing to meet us even at short notice for detailed deliberations. The Hon. Finance Minister, Shri T. M. Thomas Isaac, lent us his counsel as well as financial support from his Ministry towards KSRTC as a breather during the transition period. We thank the Government of Kerala and the Ministers for their extended assistance: their commitment to the cause of saving the public sector is unparalleled in the present day.

We would not have been able to understand the crises facing KSRTC, let alone provide consultancy, without the unstinted help and cooperation of the CMDs of the Corporation during our tenure: Shri M. G. Rajamanickam IAS, Shri A. Hemachandran IPS, Shri Tomin J. Thachankary IPS and Shri M. P. Dinesh IPS. They made sure that we were not lacking with respect to information or logistics. Not

CHAPTER – 3

THE STRATEGY WORKSHOP

Our Methodology: Participatory Strategic Analysis

The consulting team organised separate one-day workshops with Trade Union representatives and senior managers of KSRTC on 6 & 7 December, 2016 at the Centre for Development Studies, Thiruvananthapuram. Based on our understanding that any turnaround strategy prerequisites the mandate and support of all major stakeholders, the consulting team carried out wide discussions with both the major stakeholders. The turnaround strategies and action plan that we present in the succeeding chapters have been based on our analysis as outlined in Chapter-2 and our understanding that there were major organizational roadblocks and weaknesses that had made it difficult to overcome the challenge. In order to garner organizational support, the workshops discussed all issues pertaining to the operations of the Corporation. However, financial restructuring and organizational strengthening were not discussed.

The objectives of the workshop were to:

i) Summarise the contours of the grave financial crisis facing KSRTC;

ii) Compare KSRTC's performance parameters with those of other southern STUs;

iii) Highlight possibilities of better deployment of KSRTC's assets, including buses and workshops;

iv) Provide a forum to all key stakeholders to provide feedback and point out any major omissions by the consulting team;

v) Invite participants to provide possible strategies and policy changes that will make possible the permanent change and long term turnaround of the Organization; and

vi) Provide suggestions on how to make KSRTC a viable and sustainable organisation, able to meet all its current and future liabilities.

Presentations on the crisis by the resource persons—Prof. Sushil Khanna & Mr. Ch. Hanumantha Rao—were followed by suggestions from the floor. Further causes of concern that may also have contributed to the organizational crisis were raised by participants. These issues highlighted by the participants were collected; discussed; and, those found acceptable, were collated into a list.

In the second half, the resource persons presented possible organizational assets that could be deployed to improve the working of KSRTC. The participants again met in small groups to discuss the possible course-of-action and policy changes that could make KSRTC a viable organization.

These suggestions for turnaround and early rescue of the Corporation were then discussed in an open forum (separately with Trade Union representatives and Managers), and deliberated upon. We present the summary of the discussions along with the recommendations put forth by the trade union leaders and senior managers of KSRTC.

RESOURCE PERSONS' PRESENTATION ON CRISIS IN KSRTC AND POSSIBLE WAY OUT

The resource persons made two short presentations. These covered the following points:

1. **On the grave financial crisis in KSRTC and the productivity of its assets:** This began with an overview of the business environment of KSRTC, where public opinion is increasingly hostile to public sector organisations, resulting in privatisation of such organisations, direct transfer of subsidies (rather than through PSEs) and greater public scrutiny of PSE performance. Even though the present Left-front government may not favour privatisation, it is unlikely to pay for the large and mounting deficits.

2. **Comparative Performance and Operational Efficiency Parameters:** Comparing the performance of KSRTC with neighbouring SRTCs (Andhra Pradesh, Karnataka, Tamil Nadu) demonstrated very large and significant productivity differences, like on fleet utilization, curtailment of trips resulting in lower mileage and revenue loss, higher than average fuel consumption, higher accident rates, poorer workshop productivity and turnaround time in workshops. While KSRTC enjoyed higher or comparable fares per kilometre compared to its peers, it showed lower productivity and higher fuel consumption.

3. **Possibilities of Enhancing Productivity:** The third presentation identified assets and resources—mainly buses and workshops and manpower, whose better utilisation can enhance income and cash

flow to the corporation. The participants were asked to identify policies, practices and procedures that stand in the way of higher utilisation of these assets, vital for turnaround.

The participants in the two workshops identified key actions and policies that can lead to better asset utilization and enhanced productivity. These were collated and discussed in detail. Changes required in policies and practices were discussed. While agreeing to the action plan, workers' representatives felt that the main responsibility for turnaround and better asset utilisation rested with managers. On the other hand, managers felt that the trade unions erected barriers to changes that undermined efforts to utilize assets efficiently and enhance productivity.

SUGGESTIONS FROM THE TRADE UNIONS

What can the Government do?

- Government should reimburse subsidy on concessions
- Pension burden to be taken over by the Government
- Diesel Tax to be reduced
- Checking of parallel & illegal services
- Strict enforcement of policies governing nationalized routes

What can be done to improve Manpower Utilization?

- Need for changes in duty patterns was appreciated
- Appointment of Driver-cum-conductor & Conductor-cum-driver only

- Possibility of recruiting driver/conductor/mechanic from ITI courses
- Better training of workshop mechanics in repairing modern buses with pneumatic doors, CNG etc.
- Need for change in work norms in workshops & depots was appreciated
- Better HR policies with appropriate rewards & punishments
    - Instituting rewards for efficiency
    - On-the-spot penalties for minor infractions, saving long disciplinary procedures & enquiries
- Better deployment & posting of women conductors

What can be done at Operations level?

- Rationalization of schedules
- Better route selection/ deployment
- Irrational running time to be addressed
- Manpower & bus deployment mismatch resulting in avoidable cancellations to be addressed
- Fleet strength to be increased
- Fleet Utilization to be increased to 95% by reducing off-road buses
- Better fleet management – avoiding convoy of similar buses, route collection analysis, demand forecasting etc.
- Fast Passenger buses to move ahead of Ordinary buses carrying free pass students

- Long-distance services to be centralized & monitored from Control Room
- Better fuel efficiency to be achieved

What requires urgent modernization?

- Modernization of workshops to improve turnaround
- Better management of workshops to quick disposal of scrap & availability of spares etc.
- Better working conditions to workers – i.e. canteens, washrooms etc.

What needs to be done at Management level?

- Better communication between Management & TUs
- Better Management Information System and Controls
- Computerization/ EDP to be speeded up
- Accounts & Audit to be strengthened
- Zonal Offices without power or responsibility – better delegation of authority needed
- More business autonomy & fleet deployment powers to Unit Officers

Other Suggestions

- BOT agreement to be enforced on shopping complexes
- Corruption to be controlled
- Better customer service with Quality, Reliability and Safety

SUGGESTIONS BY THE MANAGERS

- Maximize buses on the road to 95%
- Redeployment of staff from depots of excess manpower to depots where buses idle for lack of staff
- Faster turnaround of off-road buses by use of float units and night-time repairs & maintenance
- Avoid overcrowding of buses at small depots
- Proper checking of buses daily to avoid trip curtailment
- Single Duty for all employees including mechanics
- No long leave; workers emigrated with long leaves to be dismissed
- Better service & revenue analysis
- Depots to be made profit centres with accountability
- More clear standing orders and work norms
- Uneconomical services only at peak hours
- Proper chronology for schedules to be made
- Time-tables to be displayed on buses
- Introduction of non-stop & unlimited stop buses
- Online reservation for all services above FP
- Travel Cards to be introduced
- Training for Front Office Staff

On Workshops

- Workshops to be modernised in sequence
- Scarp to be removed at the earliest
- Work Norms at workshops to be revised
- Committee to set new norms to achieve 1600 man-hours for new bus body
- Float engines & ready spares to minimize bus downtime
- Target to reduce bus turnaround time after repair to a few hours or a day

All these suggestions were shared with the workers' representatives and officers. We hope that since there is willingness amongst workers and managers to work together to turnaround KSRTC, the senior management's task becomes that much simpler. We hope that this consensus will lay the foundation stone of a collaborative effort.

Despite this broad agreement, there will be pain felt by workers as new and stricter work norms and HR practices are enforced. This is likely to result in pressure on the Trade Union leadership. However, the future can only be secured if issues arising are tackled in a humane manner, giving primacy to the Organization's goal of achieving sustainable viable operations through better utilization of manpower and assets, like buses and workshops.

CHAPTER – 4

OPERATIONAL TURNAROUND STRATEGIES

KSRTC has enjoyed higher per-kilometre fare structure and more lax manning compared to its peers in the neighbouring states. Its employees enjoy relatively better salary structure and retirement benefits compared to other STUs. With 43,574 employees operating less than 6,000 buses, it has the highest bus-staff ratio amongst the southern STUs, and operates the smallest fleet with the lowest fleet utilization. The average running of a KSRTC bus (on buses operated) is only 332 km/day as compared to 400-450 km/day in neighbouring STUs. KSRTC's fuel consumption is also the highest amongst its peers, and there seems to be no monitoring of fuel consumption.

As is evident, KSRTC has been unable to use its resources in an optimal manner. All these point at a potential for harnessing the slack within the organization to improve its productivity and profitability in the short-to-medium term. What is more, all the trade unions and officers have offered to co-operate with the turnaround effort to change the fortunes of the Corporation. The long-term viability of KSRTC depends on efficient and productive deployment of its assets—buses and manpower.

It is to be noted that all of the causes and effects of operational inefficiencies at KSRTC are inextricably linked to each other. For example, sub-optimal fleet utilization is primarily due to long overhauls at workshops

and inelastic manpower deployment—both signaling at poor management and unhealthy work norms—that, in turn, affect staff productivity. Illegal double duty patterns also affect staff productivity; it also leads to schedule cancellations and idling of buses—leading to poorer fleet utilization. In the schedules that are operated, revenues are not optimal due to irrational running times and sub-optimal selection of routes that would help accommodate double duties in a single schedule. That the revenues are not optimal is, in turn, often cited as a reason for trip curtailments within schedules—causing fall in vehicle productivity and exacerbating staff underutilization—without addressing the primary issue, viz. double duty patterns.

Thus, we have seen that to surgically remove any one operational concern ailing KSRTC requires addressing all its concerns lest it go back to being irrevocably ill in no time. That is to say that any attempt at raising the performance in any one parameter alone is redundant and half-hearted: it is all or none. The critical operational areas that require strategic intervention are outlined below.

Duty Patterns

As multiple duties on same day are contrary to the Motor Transport Workers Act (MTW Act), and flouts the law, leads to high bus-staff ratios and extra expenses towards allowances, and is a major cause of higher road accidents, the current practices concerning the duty patterns must be challenged. This will require an immediate end to the illegal duty patterns

that have evolved over the years. Once this is changed, every worker will be required to present himself for 8 hours of steering duty as provided for in the MTW Act. A duty should mean 8 hours of steering duty for drivers and conductors. For all the time spent at work but not on operating the schedules (for instance, time taken during tea/ lunch breaks or time between trips), the worker must be entitled for an overtime allowance. For long-distance schedules, there should be crew change at stipulated intervals. Nevertheless, fresh vacancies arising should be only filled by ***driver-cum-conductor*** posts.

As the Trade Unions and other employees have agreed, in principle, to accept single duty patterns prevalent in other STUs, we expect this to result in major operational improvement and efficiency. However, it will also require redrawing of almost all schedules and duty patterns. As far as possible, a set of crew should be attached to one bus so that other operational parameters like fuel consumption, faults due to poor driving, accidents etc. can also be monitored. The measures to be discussed below also hinge on this change in the duty patterns.

Fleet Utilization

The first task is to raise fleet utilization from 80-84% to 95-96% within the next few months that alone can raise KSRTC's annual revenues by Rs. 433 crores as calculated and presented in the table below. (Note that the Earnings per Bus (EPB) is taken to be Rs. 11,030—as it is the EPB for the

date taken—as against the average EPB for 2015-16 which is a higher amount of Rs. 11,698.)

TABLE-4.1: Additional Earnings from 95% Fleet Utilization				
	Buses	EPB per day (in Rs.)	Daily Revenue (in Rs. Crores)	Yearly Revenue (in Rs. Crores)
Total	6,598			
Operated	5,191	11,030	5.73	2,089.87
Operable @ 95%	6,268	11,030	6.91	2,523.47
Additions	1,077	NIL	1.19	433.59

Source: Our calculations & assumptions, using KSRTC Data for 07 October 2016

To achieve higher fleet utilization, major amendments in workshop practices (to be discussed in the next chapter below), inventory management and duty patterns will be required. Moreover, all 'paper schedules' (schedules that are not operated at all or only for few days in a year)—listed and otherwise—must be scrapped, and absenteeism be checked. Unannounced leaves resulting in schedule cancellations owing to the Depot Manager's inability to assign duties at short notice must be severely dealt with. There should also be flexibility within a zone to make transfers in order to address perennial fleet- and staff-underutilization stemming from mismatch in manpower and fleet deployment. (Consider Pappanamcode depot, which, as of February 2016, had 264 conductors for 232 drivers, resulting in cancellation of several schedules every day.)

KSRTC also needs to utilize all buses including the so-called 'spare buses.' Given very low productivity, KSRTC cannot afford to keep any roadworthy bus idling as spare. Effort should be made to run as many schedules as

possible. Hence, until fleet utilization rises to 95% as a result of better workshop management, as many available spare buses should be deployed rather than cancelling schedules due to breakdowns or repairs.

Route Rationalization

Considering KSRTC's average Earnings per Bus (EPB) per day in 2015-2016 is Rs. 11,698, it is possible to raise the EPB of its nearly 3,300 schedules that fetch less than Rs. 10,000 per day to a benchmark of Rs. 10,000 a day if the routes and schedules are rationalized. It turns out that many of these schedules are not rationalized according to demand analysis and ply just so that the double duty patterns are accommodated. Hence, putting an end to double duty patterns alone can iron out much of the discrepancies and losses associated with plying schedules sub-optimally. A recalculation of earnings assuming that all schedules fetch a minimum of Rs. 10,000 per day—negating the schedules that operated for less than 5 days in a month—shows that KSRTC could earn another Rs. 328 crores from route- and schedule-rationalization.

The office of the Executive Director of Operations (ED-O) should be entrusted with the preparation of new schedules and analysis within 2–3 months.

TABLE-4.2: Additional Earnings from Raising EPB per day to Rs. 10,000						
Type of Schedules	*Schedules (earnings < Rs.10000/day)	Average Daily Earnings of *Schedules (in Rs.)	Total Daily Earnings of *Schedules (in Rs.)	Total Daily Earnings of *Schedules @ Rs.10000/ schedule (in Rs.)	Additional Daily Earnings (in Rs.)	Additional Yearly Earnings (in Rs. Crores)
ORD	2397	7199	17256003	23970000	6713997	245.06
CTY	226	6120	1383120	2260000	876880	32.01
TT	73	8584	626632	730000	103368	3.77
LSOR	376	8142	3061392	3760000	698608	25.50
CFP	65	8230	534950	650000	115050	4.20
FP	143	7233	1034319	1430000	395681	14.44
LSFP	9	6553	58977	90000	31023	1.13
SFP	7	5102	35714	70000	34286	1.25
High-end	5	5855	29275	50000	20725	0.76
TOTAL	3301		24020382	33010000	8989618	328.12

Source: Our calculations & assumptions, using KSRTC Data for July 2016

Vehicle Productivity

In 2015-16, KSRTC operated only 77.22% of its scheduled kilometres, suggesting high levels of trip curtailment. Breakdowns, crew absenteeism, traffic congestion, etc. are often cited as reasons behind trip curtailments. If these are to be checked, KSRTC would earn Rs. 42.58 crores per annum. (Note that the figures taken for the calculation of increase in vehicle productivity due to trip curtailments exclude the buses operated by KURTC, the subsidiary undertaking of KSRTC, for unavailability of data; hence, the additional revenues thus generated must be higher.)

(A) Average kilometres lost daily due to trip curtailment (for October 2016) = 36,647

(B) Earnings per kilometre (for October 2016) = Rs. Rs. 31.83

(C) Annual additional earnings from checking trip curtailments: (A)*(B)*365 days = Rs. 42.58 crores

KSRTC's bus productivity is as low as 332 kms/bus/day on buses operated whereas performance of other southern STUs in this parameter is above 400 kms/bus/day. If trips are operated without curtailments, there could be an increase in vehicle productivity to kms/bus/day. This is calculated as outlined below:

(D) Average number of buses operated daily (for October 2016) = 4,575

(E) Increase in vehicle productivity from checking trip curtailments: (A)/(D) = 8.01 kms/bus/day

(F) Vehicle Productivity on buses operated (for October 2016) = 334.83 kms/bus/day

(G) Vehicle Productivity (potential) on buses operated: (E)+(F) = 342.84 kms/bus/day

As other neighbouring STUs have even higher vehicle productivity indicators, there is still scope for increase in KSRTC's vehicle productivity—and, thereby, its earnings—after putting an end to trip curtailments. This would require optimization of running times consistent with the rationalization of routes as explained earlier. Hence, we are factoring in ***optimization of running times*** as the second crucial factor that can improve vehicle productivity. The calculations below show that Rs. 416 crores can be

additionally earned if the vehicle productivity is increased from 343 to 400 kms/bus/day.

(H) Optimal vehicle productivity on buses operated = 400 kms/bus/day

(I) Desirable change in Vehicle Productivity: (H)–(G) = 57.16 kms/bus/day

(J) Total buses operable at 95% fleet utilization (for 07 October 2016) = 6,268 *(see Table-4.1)*

(K) Annual additional earnings from the desirable change: (J)*(I)* (B)*365 days = Rs. 416.25 crores

(L) Total annual additional earnings from increase in Vehicle Productivity: (C)+(K) = Rs. 458.82 crores

Thus, an increase in vehicle productivity from checking trip curtailments and optimizing the running times can fetch the Corporation Rs. 458.8 crores per annum.

Fuel Efficiency

KSRTC's fuel consumption is worst amongst its peers, giving only 4.15 kmpl (kilometre per litre) of High Speed Diesel (HSD) in 2015-16. The immediate target must be to raise it to 5 kmpl.

(A) Total distance operated in 2016 = 61,41,81,584 kms

(B) Total HSD consumed in 2016 = (A)/4.15 litres = 14,79,95,562.4 litres

(C) HSD required in 2016 with consumption at 5 kmpl = (A)/5 litres = 12,28,36,316.8 litres

(D) Potential annual savings in fuel (for 2016): (B)–(C) =2,51,59,245.6 litres

(E) Average price paid for HSD by KSRTC in 2016** = Rs. 57.07/litre

(F) Potential annual revenue savings from raising fuel efficiency: (D)*(E) = Rs. 143.58 crores

(**Note that the average price paid for diesel in 2016 is calculated by us using the data provided by KSRTC of the HSD price at Thiruvananthapuram City depot for all days in the later half of the year; hence, the average here would, in fact, be the average taken for the second half of 2016.)

Thus, raising the fuel efficiency of buses through the adoption of adequate HR policies and routine overhauls can help KSRTC save to the tune of Rs. 144 crores annually (at 2016 prices). Borrowing the practices in other STUs, KSRTC may adopt the following policies:

- Tying a crew to a bus to monitor fuel efficiency
- Financial incentives for meeting the targets & penalties for those who operate at below 4.5 kmpl
- Identification of low-kmpl drivers & providing training to improve their performance

Summary & Financial Impact of our Suggestions

Better fleet utilization will certainly increase revenue. In order to realize this, KSRTC will also have to increase direct variable expenses on account of fuel and spares. Hence, the contribution or surplus available for overheads or fixed expenses will be smaller than the increase in revenue. According to the representative picture we provided in Chapter-1 based on the provisional accounts for 2016-17, 58 per cent of the total revenue is earmarked for expenses towards fuel and spares for repairs, leaving 42 per cent of the total revenue as contribution towards overheads.

KSRTC can fetch additional earnings and savings by improving performance in certain parameters, as has been indicated by the calculations we carried out in this chapter.

- Total annual additional earnings from fleet optimization, route rationalization and increase in vehicle productivity = Rs. (433.59 + 328.12 + 458.82) crores = Rs. 1,220.53 crores
- Total annual additional savings from raising fuel efficiency = Rs. 143.58 crores.
- Annual increase in KSRTC's revenue = Rs. (1,220.53 + 143. 58) crores = Rs. 1,364.11 crores
- Contribution towards overheads* = 42% of Rs. (433.59 + 458.82) crores + 91% of Rs. (328.12 + 143. 58) crores = Rs. 804.06 crores

*[*Contribution towards overheads—we consider salaries as fixed expenses— is that part of the revenue after apportioning for direct expenses*

on fuel and spares necessary to undertake the operations. This helps meet other fixed or semi-fixed expenses. However, since the measures aimed at route rationalization and raising fuel efficiency do not require buses to run additional distances, operational surplus from these parameters is 91% of the total revenue as only 9% of it are apportioned towards expenses on spares.]

None of the measures outlined in this chapter are outside of the book; these are just the basic steps that ought to have been followed at KSRTC from its inception. However, the predicament that KSRTC has brought itself in means that stepping out of this quagmire requires strong will and action. This is vital as financial redemption packages and organizational rejuvenation would only be temporary fixes and redundant exercises respectively, unless there is significant ***improvement in operational parameters***. Such change in efficiency will impact the long-term viability of the Organization; this is to be ascribed ***central role in the revival of KSRTC.*** To do that, productivity of manpower, buses and units must be raised at least so that its indicators are at par with the industry average.

The above exercise demonstrates that the key to reviving KSRTC out of the current crisis lies in the turnaround of its operations. For a Corporation that has been borrowing around Rs. 100 crores per month at present, the untapped potential in its operations manifests as a blessing in disguise. It must, however, be noted that these measures are only as good as the commitment of and the immediacy attached to it by all stakeholders of the Corporation.

Productivity Improvement Efforts in KSRTC based on our Interim Report

TABLE-4.3: Daily Average of Operational Parameters in KSRTC (month-wise)						
Month/Year	Schedules Held	Schedules Operated	Kilometres Scheduled	Kilometres Operated	Schedules Cancelled (% of total)	Kilometres Cancelled (% of total)
01/2016	5,775	4,365	1,962,866	1,517,972	24.42	22.67
02/2016	5,777	4,493	1,963,347	1,534,497	22.23	21.84
03/2016	5,801	4,530	1,974,862	1,558,508	21.91	21.08
04/2016	5,809	4,467	1,977,135	1,536,714	23.10	22.28
05/2016	5,809	4,383	1,977,308	1,495,866	24.55	24.35
06/2016	5,820	4,602	1,982,513	1,576,291	20.93	20.49
07/2016	5,830	4,624	1,991,687	1,588,461	20.69	20.25
08/2016	5,840	4,654	1,996,543	1,600,364	20.31	19.84
09/2016	5,840	4,419	1,996,543	1,506,463	24.33	24.55
10/2016	5,266	4,477	1,829,759	1,544,378	14.98	15.60
11/2016	5,040	4,556	1,767,717	1,584,325	9.60	10.37
12/2016	5,041	4,632	1,767,999	1,638,314	8.11	7.34
01/2017	5,041	4,635	1,768,018	1,656,198	8.05	6.32
02/2017	5,045	4,544	1,769,920	1,595,001	9.93	9.88
03/2017	5,047	4,694	1,771,235	1,647,053	6.99	7.01
04/2017	5,047	4,436	1,771,235	1,569,794	12.11	11.37
05/2017	5,055	4,452	1,776,894	1,575,208	11.93	11.35
06/2017	5,057	4,548	1,778,505	1,602,690	10.07	9.89
07/2017	5,064	4,543	1,784,449	1,596,365	10.29	10.54
08/2017	5,076	4,732	1,794,624	1,651,919	6.78	7.95
09/2017	5,084	4,656	1,799,736	1,638,609	8.42	8.95
10/2017	5,094	4,629	1,804,605	1,617,354	9.13	10.38
11/2017	5,093	4,596	1,804,605	1,618,631	9.76	10.31
12/2017	5,093	4,604	1,804,605	1,638,026	9.60	9.23
01/2018	5,093	4,534	1,804,605	1,621,286	10.98	10.16
02/2018	5,093	4,780	1,804,605	1,676,152	6.15	7.12
03/2018	5,093	4,724	1,804,605	1,664,355	7.25	7.77
04/2018	5,093	4,419	1,804,605	1,558,061	13.23	13.66
05/2018	5,093	4,601	1,804,605	1,635,873	9.66	9.35
06/2018	5,093	4,775	1,804,605	1,666,787	6.24	7.64
07/2018	5,093	4,761	1,804,605	1,668,782	6.52	7.53
08/2018	5,093	3,995	1,804,605	1,369,793	21.56	24.09
09/2018	5,093	4,745	1,804,605	1,474,232	***6.83***	***18.31***
10/2018	5,093	4,832	1,804,605	1,515,210	***5.12***	***16.04***
11/2018	5,093	4,862	1,804,605	1,523,655	***4.54***	***15.57***
12/2018	5,093	4,522	1,804,605	1,458,793	***11.21***	***19.16***

Source: KSRTC & Own Calculations

As has been evident from the table above, the gradual but long-overdue removal of multiple duty patterns *(see Table-4.4 below for the new duty patterns)* has not only manifested in improved operational parameters, but has also helped us make better sense and use of the data hitherto collected by the KSRTC. For instance, we had always overlooked what it meant to have almost-identical figures of percentages of schedule cancellations and kilometre cancellations. With the double duty systems removed to a large extent, we notice that, for the first time in more than 40 months that we have analysed, the percentage of kilometre cancellations far exceeded the percentage of schedule cancellations since September 2018. We corroborated with the Management to learn that this was thanks to the curtailment of unprofitable trips from the schedules—trips that were, in large part, in place only to make room for double duties with an extra half an hour of steering duty! That is to say that although no extra schedule has been cancelled, the non-yielding kilometres within these schedules have been done away with. Not only has this helped address issues with respect to route rationalization, schedule planning and manpower management; this has also helped KSRTC earn some of its highest daily revenues till date. If KSRTC persists with efficiency improvement efforts, they may soon break even, and recover all their direct and indirect expenses from their revenues.

TABLE-4.4: Duty Patterns in KSRTC as on October 2018

Duties per Schedule	1	1.5	2	2.5	3	3.5	4
Schedules (Drivers)	5,847	266	954	77	168	47	2
Schedules (Conductors)	5,847	266	954	77	130	27	2

Source: KSRTC *(Same as Table-2.5.A)*

There are two additional takeaways from Table-4.3. It has shown us that the only way revenues could be optimised within its current range of operations is via scientific route planning and corresponding manpower management. As such, data has finally started to make sense; and, this can be used to check the efficacy of schedules, routes and manpower deployment.

Our interim report submitted to the Government of Kerala had mentioned how tackling the duty patterns was the key to addressing all the operational ailings of KSRTC, and that it should be corresponded with simultaneous attacking of the other issues. Our prognosis was made out of a study of how the double duty system both stems out of and feeds into the other operational issues facing KSRTC. But that is just as much we could do in our capacity as a consultants; a formidable management alone could implement it. Given our understanding of KSRTC to be lacking in its managerial capabilities, this is a commendable improvement. Hence, the second takeaway from this process was that an entity often not recognised in the operational equations—that is, an efficient and effective management—is the cue to any positive changes. It is one thing to surgically remove a cancer, but it is just as or even more important to have a team of qualified doctors who can identify it, define the prognosis and carry out the surgery.

As evident by Table-4.3, and according to data collected from the office of the ED (Operations), 553 paper schedules have been scrapped from the

schedule position. In the new schedule list that came into effect on 31/12/2016, the total schedules held in KSRTC were 5,471 (including take-over services) as against 6,024 on 31/05/2016.

TABLE-4.5: Schedules Fetching less than EPKM of Rs. 30					
Type	No. of Schedules				
	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
Scania	0	1	0	0	2
Super Deluxe	26	15	16	20	12
Super Express	9	11	10	12	7
Super Fast	63	35	36	16	17
Fast Passenger	268	142	115	71	71
Town-to-town	119	37	46	44	56
Ordinary	1,112	542	591	682	787
Total	**1,597**	**783**	**814**	**845**	**952**

Source: KSRTC

TABLE-4.6: Monthly Average of Buses in KSRTC along Different Slabs of Earnings per Bus								
Buses →	2016				2018			
EPB (in Rs.)	April	May	June	July	February	March	April	May
< 8000	1,853	1,833	2,169	2,113	1,082	1,027	740	752
8000-9000	604	648	630	622	608	671	513	496
9001-10000	456	441	435	411	606	581	555	351
10001-12000	571	557	537	553	952	937	980	1,001
12001-14000	346	362	439	416	504	557	663	651
14001-16000	350	335	293	348	441	371	375	395
16001-18000	239	250	136	180	333	323	380	351
18001-20000	145	139	80	103	168	182	271	246
20001-22000	62	69	56	54	98	104	171	140
22001-24000	51	44	44	45	60	65	86	61
> 24000	176	208	112	132	185	204	302	281
TOTAL	**4,853**	**4,886**	**4,931**	**4,977**	**5,037**	**5,022**	**5,036**	**4,725**

Source: KSRTC & Own Compilations

We learn that synchronising duty patterns and scheduling across certain routes and types of schedule requires more time. To that effect, we are far from juxtaposing the current revenues against the expected revenue generation outlined above. Different measures aimed at standardising the duty patterns through these past few months have also helped rationalize routes and schedules. The above tables are self-explanatory as to why duty patterns are central to operational turnaround in KSRTC. KSRTC has been able to phase out, redeploy or rationalise around half of it low-EPKM-generating schedules even as duty pattern changes are still being finalised. Moreover, buses fetching lower levels of earnings per bus have gone down in number; there is more than double rise in buses fetching EPB between Rs. 10,001 and Rs. 14,000. It is only a matter of months of sustained performance before more buses from EPB less than Rs. 10,000 move to this category, and buses from this category move up to EPB above Rs. 14,000.

CHAPTER – 5

RESTRUCTURING WORKSHOP MANAGEMENT IN KSRTC

(We are immensely grateful to Mr. Ch. Hanumantha Rao for his detailed study of workshops and related aspects in KSRTC. This chapter is based on his findings and inputs.)

As buses constitute the major capital investment of any STU and are the assets on which operations are dependent on, it is imperative that buses are kept and ready and available for running. For this to happen, work norms and planning in the KSRTC workshops have to undergo a comprehensive change. A fleet utilization of 95-99% provide for the bulk of the surplus generated in the neighbouring STUs. This chapter outlines the measures to be taken at KSRTC with regard to its workshops so as to streamline its operations.

The maintenance management at workshops in any STU occupies a very important role in maintaining the targeted fleet utilization and the required fleet health. The management of workshops requires higher level of technical skills as it is the key to the success of the maintenance function. The productivity of workshops is dependent on the support of Purchase & Stores and Finance & Audit Departments. A modern production workshop requires specialized support with respect to Production, Planning & Control (PPC) Section, Quality Control (Inspection) Section; and Industrial Engineering (Research & Development) Section. In KSRTC, these sections are either inexistent or not working up to the standards expected of them.

Management

The mechanical engineering wing of the KSRTC that is in charge of the working of the workshops is headed by two Executive Directors—ED (Technical) and ED (Maintenance & Works). Although they work independently, ED (M&W) reports to ED (T); and the 3 Mechanical Engineers (MEs), 8 Works Managers (WMs) and 8 Assistant Works Managers (AWMs) report to both of them. This makes room for unaccountability, ambiguity, duplication and inefficiency. Insofar as the 'Organization Structure' defines inter-departmental relations, leaving this issue unattended can cause turbulence in:-

- Demand forecast of units;
- Production planning and control of workshops;
- Training of supervisors and workmen; and
- Provision of manpower as per existing norms.

There also needs to be introspection into the role of the AWM within the organization, which is currently limited only to reporting. Currently, there are 8 AWMs, each tasked with inspecting about 8 depots. But they have only been reviewing the monthly performance against a prescribed proforma and sending the reports to WMs and MEs, with a copy attached to the Depot Engineer. Their technical expertise, management potential and decision-making authority is under-utilized or unutilized. The ED (M&W) should prepare a 'Permissible Repair Schedule' that outlines the work to be carried out at workshops and depots. A special task force may be constituted under ED (T) to improve the functioning of the Mechanical Engineering Department.

Workshop Management Processes

The workshops at KSRTC are managed with outdated systems, and along traditional lines. The management must take measures to impart quality training to the officers in order to fill the skill gaps. Quality Control Section needs special tools, dial gauges and other equipments for testing the quality of units before they are dispatched to the depots. It should also be mandated that the representatives of Original Equipment Manufacturers (OEMs) be stationed at the workshops to establish quality controls. The workshop management team, including the supervisors, must be strengthened. A special committee may be constituted to look into how this can be done without hindering other initiatives taken at KSRTC.

There is also an immediate need to address the issue of mismatch in workshop staff deployment at depots. For instance, mechanics are in excess in one depot while scant in another one. Considering this has a bearing on the number of buses off-road for minor glitches and waiting at the depot workshops, there should be necessary re-deployment of workshop staff. The middle-level management in KSRTC has ceased to work hand-in-hand with the top management as there is a conflict of interest that arises when supervisors like charge men, tyre inspectors and assistant depot engineers (in workshops); and depot heads and inspectors (in depots) double up as union leaders as well.

Optimal number of workshops and depots

The number of depots and vehicles attached to the five workshops at KSRTC poses the question: does KSRTC need 5 workshops for a fleet size of 6,500 vehicles?

Workshop	Depots Served	Buses Served
Central Workshop	21	1,620
Mavelikara	22	1,454
Aluva	21	1,552
Edappal	15	832
Kozhikode	13	940

An economic analysis of fleet size and management at KSRTC warrants three zones with operational autonomy and decision-making powers, with three Regional Workshops attached to them for optimality of overhauls and minimization of costs. Considering geographical location and fleet deployment at depots, the ideal scenario is summarized in the table below:

Zone	Workshop	Depots	Fleet Size
Thiruvananthapuram	Pappanamcode	37	2,545
Ernakulam	Aluva	32	2,135
Kozhikode	Edappal	25	1,716

As of March 2017, the fleet size in KSRTC (excluding the JNNURM buses) was 5,948. These buses were of five different makes, dispersed across the 93 depots/sub-depots/operating centres as follows:

Type	No. of buses	Depots operating from
Leyland	3,675	93
Tata	2,096	88
Eicher	145	59
Volvo	12	5
Scania	19	2

A closer examination of these dispersion data reveals that some of these makes are uneconomically deployed at operational units. For instance, 29 depots in KSRTC have just one vehicle each of Eicher; 15 depots have just two each. Such dispersion of buses in several depots, with many of them having only 1-2 buses of the same make, provides for ***diseconomies that have high cost implications.*** Spares have to be stocked at several depots, making inventory management expensive and irrational. Also, the specialized skills required to repair and upgrade the buses cannot be easily developed, leading to larger turn-around time and costly inventory management.

Such a move has been rationalized in KSRTC so as to evaluate the performance of each make of bus under different operating conditions. But the management must prioritize their concerns: KSRTC cannot afford to undertake such expendable exercises at the expense of the foregone economies of scale on account of bus-workshop linkage and allocation of floats – a topic that we shall discuss shortly.

The total fleet in KSRTC (including the JNNURM buses) of about 6,500 buses are based at 94 units (including depots, sub-depots and operating centres), the details of which are furnished below:

- 17 Depots (about 100 buses)
- 58 Sub-depots (40-100 buses)
- 10 Operating Centres (less than 40 buses)

As the decision-making in KSRTC is heavily centralized at the Head Office, decentralization on such scale is effectually fruitless as well as uneconomical. Even otherwise, the industrial norm dictates a minimum of 60 buses per centre for optimal operations. Running the operations from as many depots contributes to substantial fixed costs and overhead charges as KSRTC has:-

- 6 centres with less than 25 buses,
- 22 centres with 26-50 buses, and
- 11 centres with 51-60 buses.

This suggests that ***39 operating units in the Corporation are uneconomical***. With Kerala being a densely urbanized state, the issue of diseconomies is exacerbated. Each depot must ideally cater to at least 100 buses. KSRTC needs to merge certain existing sub-depots and operating centres with nearby depots and major sub-depots. A feasible arrangement shall be to have depots with operational, maintenance and administrative staff; and their operating centres with only operational staff.

In the medium-run, this shall help the top management strategize an integrated middle-level depot management policy for KSRTC. These depots shall act as functional units and profit centres with unity of command and accountability for actions. The Depot Manager shall translate corporate policies into action, and shall be responsible for the management of fleet and operations, administration, public relations, commercial performance, industrial relations etc.

Workshop Performance Audits

Although the performance of the workshops are reviewed at the monthly meeting of the officers of the Mechanical Engineering Department, there is no system of auditing the performance of the workshops in KSRTC. Just as there is inspection of depots by the AWMs, KSRTC should have monthly inspection of the workshops by the MEs, and audit them with respect to:-

- Average unit life
- Excess consumption of cost control items
- Premature failure of C.O. aggregates
- Poor HSD and Lub KMPL of the zone
- Off-road vehicle position
- Low service levels of aggregates

It is recommended that the audits conducted by the ME Department duly involve the service engineers of the Original Equipment Manufacturers (OEMs) so that the following can be looked into:

- The facilities available
- The methods of overhaul
- Availability and usage of special tools

- Workmen's knowledge about the overhaul of units
- Reasons for the premature failure of aggregates

The call of the hour for KSRTC as regards the workshops is to ***concentrate on the quality*** of production/maintenance/overhaul rather than on the number of units produced/overhauled. Further Certification of Fitness (CF) should be done at the depots. That is to propose strengthening the depots with manpower while downsizing the manpower at workshops. Adhering to proper inventory management procedures, the availability of spares must be routinely evaluated and ensured. The purchase of spares must be centralized at the Regional Workshops that should be tied to each Zonal Office. ***There is also a need for KSRTC to compare its costs of production and overhaul of units at workshops with that of private workshops. For instance, body overhaul work is being outsourced by many STUs at depot level via bidding.***

Fundamentals of Workshop Management

The KSRTC Management must also pay attention to the fundamentals of workshop management to avoid the imminent possibilities of them shutting down or turning into scrap yards. They are briefly described below.

1. Housekeeping: Proper housekeeping of workshops is necessary towards creating a healthy and conductive work environment. Some of the basics of workshop housekeeping are:-
    - Daily sweeping of the workshop yard and covered space
    - Regular evacuation of scrap materials from the premises

- Display of details pertaining to production details, working instructions and damaged components

2. Training of supervisors and staff: In order to realize optimal performance of workshops, both the workmen and the supervisors must be exposed to the following types of training periodically:-
    - Training to use the Plant & Machinery effectively along with its troubleshooting aspects
    - Hands-on training of high-precision measuring tools and equipments used in overhauls
    - Training on latest model aggregates including methods of troubleshooting and overhauls
    - Refresher training to cover behavioural aspects
3. Unit History Cards: All major units like engine, gear box, front axle, rear axle etc. are provided with unit history cards from the Chief Office when they are supplied to the depots along with the new vehicles. These are updated at the depot level for details pertaining to fitment, removal and causes, kilometers performed, defects etc. These unit history cards are scrutinized at the workshop level as overhauls/repairs are carried out as per the details furnished by the depots. Details pertaining to the new components used while overhauling the aggregates are duly recorded by the workshops before they are sent back to the depots. Thus, all information about the life history of the aggregate from its induction to scrap shall be extracted from the unit history cards for the MEs/AWMs/DEs and other inspecting officers to cross-check during their depot inspections. Hence, it is necessary that the unit history cards are accurately maintained.

4. Linking Promotions to Performance: Outdated personnel policies have had an impact on KSRTC as it has neglected the essence of the saying, "Management is the mover and development is the consequence." In order to entice commitment, leadership and competence, at least half of all the promotions, starting with the post of Managers, should be linked to the performance, as is the case with the better performing STUs. While this holds true for all wings of the management, workshop management should particularly consider effecting performance-linked promotions as all the other wings of the management can function only if buses are in on-road condition.

Float Units

Ready-to-use float units must be available at workshops to facilitate instant replacements so that the long period otherwise taken for repairs can be reduced and buses can be brought back to operating the schedules within hours. As such, the purposes of float units are:

- to avoid idling of manpower by ensuring availability of sufficient number of aggregates in different stages of production; and
- to keep overhauled aggregates ready in R&D Section for supply to depots on counter-exchange basis.

The requirement of floats of various aggregates shall be estimated by the WM every year. Provision for additional floats is to sanctioned by ED (T)/CMD. In order to minimize the capital expenditure on provision of floats of new model aggregates procured from the OEMs, outgoing model aggregates available in

excess shall be fitted on some Ordinary buses after duly carrying out certain modifications, in consultation with the Service Engineers of these OEMs.

The number of floats required in a workshop depends on the average daily demand and cycle time required for overhauling the aggregate. It can be computed by the formula,

F = D*L*1.25, where

F = floats of an aggregate required,

D = average daily demand of the aggregate,

L = cycle time (in days) of overhauling of aggregates, and

1.25 represents provision for 25% additional floats.

(Appendix-1 distinguishes between the types of floats as major assemblies, sub assemblies and major spares; and outlines the norms for the provision for float units to workshops and depots, according to a case study done at TSRTC.)

Work Culture

There is urgent need to establish scientific work norms at the workshops to enhance productivity and ensure that buses sent for repairs are turned around in less than 48 hours. At the start of our study, the work norms for permanent and empanelled employees showed wide variations in the work undertaken by both sets of workers, indicating how underutilized and lethargic the workshop staff at KSRTC is with respect to those in other STUs. *(See Appendix-2 for the work norms associated with overhauls and new bus body building at ASRTC.)*

Along with the work norms, work practices also need to be scientifically redesigned and delineated. Archaic practices like hand-painting the bus bodies

and non-adherence to assembly line in production must be checked in order to retrench wastages in work time, manpower energy and overall costs.

The fact that workshop staff also follows double duty patterns is a pointer not only to how this practice has been insidious and universal across all wings of operations at KSRTC, but also to how inimical it can be to the overall productivity of workshops, when combined with unscientific work norms. As in schedule operations, double duty patterns in workshops must also be totally prohibited.

Summary

While depots are the bases of operations, workshops are the backbone of the depots. Although workshops are not profit-making units, they ensure that buses are healthy and fit to undertake the STU's one and only line of profitable operations. KSRTC must pay utmost and urgent attention to a structured change in the organization, management and operation of its workshops so as to warrant optimal fleet utilization. The major agendas for action as regards the workshops and their management in KSRTC can be summarized in the following points:-

- Preparation of 'Permissible Repair Schedule' between depots, workshops and out-sourcing
- Computation of 'Demand Forecast of Units' to serve as a basis of production schedule and dispatch of float units
- Standardization of work norms and cycle times
- Introduction of monthly performance audits of workshops by MEs
- Presence of representatives from OEMs to impart training and assist during audits

- Review of Job Description of AWM (Maintenance)
- Reassessment of supervisory manpower norms and improvement in competency levels
- Purchase of special tools, dial gauges, testing equipment etc. to improve the quality of production
- Regrouping of workshops and depots to optimize fleet size and operations, and attaching workshops to zones
- Establishment of new sections like Production, Planning & Control; Quality Control; and Industrial Engineering

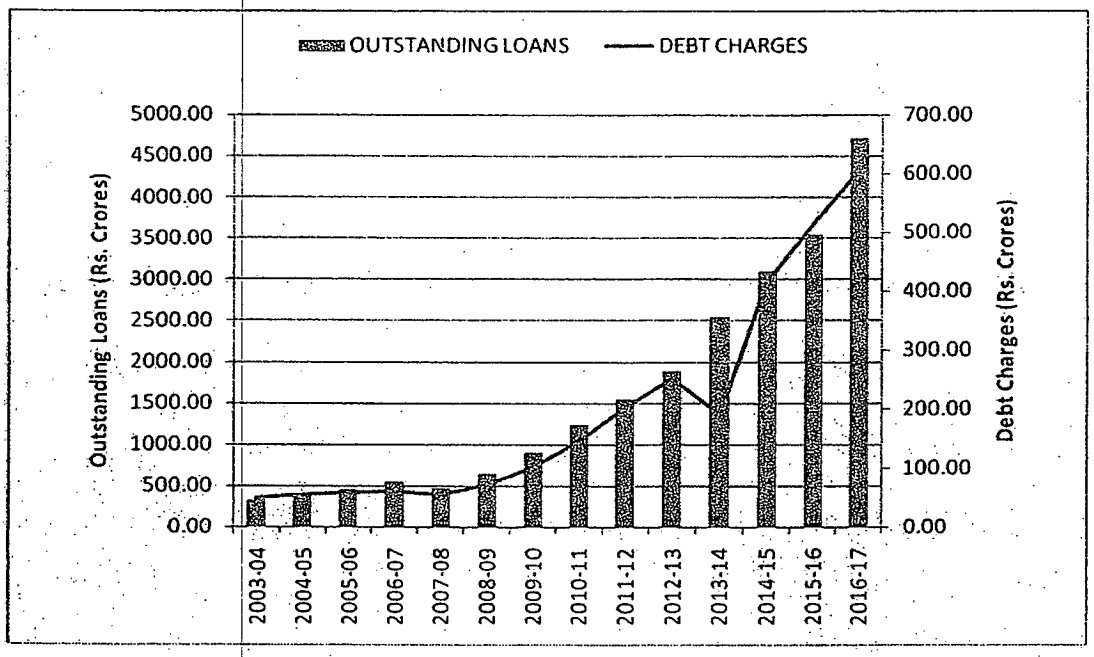
Workshops are the key to better fleet utilization; hence, it requires investments and KSRTC's best managers and technicians. The Managing Director himself/herself needs to review the working of all workshops at least once a month, if not more often.

CHAPTER – 6

FINANCIAL RESTRUCTURING OF KSRTC

Today, KSRTC is working under a severe financial squeeze which makes adoption of any turnaround strategy difficult. After paying for fuel—on cash & carry basis—and to the lenders, KSRTC is left with very little cash to meet its obligations to other stakeholders like employees, pensioners and suppliers. This meant that KSRTC has had to resort to borrowing in order to meet these obligations, at the rate of approximately Rs. 100 crores every month at the start of our study, thus leading to a rapid build-up of debt.

Fig. 5.1: KSRTC's Loans and Debt Charges



Source: KSRTC's Financial Statements *(Same as Fig. 1.6)*

As noted in Chapter-1, KSRTC's accumulated losses have more than doubled in the last five years, and if the dues to the Government of Kerala were also to be considered, half of its annual revenues should go into servicing the debt. To prevent such a build-up of liabilities that makes any turnaround impossible, the restructuring of KSRTC's loans is the first challenge. Since KSRTC is not a creditworthy organization in the eyes of the financial institutions or the general public, it cannot meet its obligations without innovative restructuring or assistance from the Government of Kerala. We discuss below some possibilities of meeting the cash crunch through the restructuring of liabilities.

1) Reduction in Debt through Sale of Assets

KSRTC's debts have grown to gigantic proportions, quite out of line with its asset base. With total fixed assets of about Rs. 1,000 crores, KSRTC's liabilities to banks and financial institutions exceed Rs. 3,000 crores, and more than Rs. 170 crores are outstanding towards the Trust Fund. This needs to be brought down to a manageable level.

As the Government of Kerala has made it clear that it will not bail out KSRTC by taking over its liability—which would be akin to rewarding it for its mismanagement—we have to look for swapping or sale of assets to lower the outstanding liabilities, so as to provide the Management with an opportunity and breather to turnaround the company.

KSRTC has depots located at prime locations in major urban centres of Kerala. During the last decade, it handed over the land at 4 major depots to KTDFC (Kerala Transport Development Finance Corporation) to develop commercial office space on BOT (Build, Operate and Transfer) basis. We are given to understand that under the contract, KTDFC was to build the four large multistory complexes, commercially exploit them, and share the revenues with KSRTC until the cost was recovered. Neither had KTDFC kept to the schedule of construction (12–18 months) nor had any building been built within the budgeted amount. That is, KTDFC could complete the buildings only with significant cost- and time-overruns. KSRTC has found it difficult to exploit the space developed and most of the buildings are still empty.

The commercial area built up in such buildings is more than 84,955 sqm (= 9.14 lakh sq. ft.). Currently, commercial space on ownership basis in downtown urban centres in Kerala is Rs. 8,000-12,000 per square foot. Hence, the value of the built-up space for KSRTC at its depots is approximately Rs. 915 crores. KSRTC should offer to sell this space to KTDFC at the market value less the cost of construction as budgeted. In case KTDFC is unable or reluctant, the Government of Kerala may take over this property at the current market rate or at assessed rate by a valuer. It is obvious that KSRTC needs time to overcome the many constraints that have held back its potential. Since it needs financial support to meet its immediate obligations as well as restructure its operations during this

period. Either mortgaging or selling these assets to the State Government would be essential to prevent further pile-up of debt.

2) Short Term Financial Assistance Linked to Plan to Improve Operations and Productivity

As discussed in Chapter-4 above, the solution to the crisis facing KSRTC lies in substantial improvement in productivity of its assets, buses and workshops as well as enhanced manpower productivity, new work norms and rationalization of its routes and schedules.

However, even under the most optimistic scenario and with unstinted support of the employees, this shall still require several months. In the meantime, crippling financial burden as a result of the past squandering of resources means that the management lacks even the minimal financial resources to meet its current obligations; and generate a small surplus to make changes in the workshops, carry better inventory and enhance asset productivity.

This calls for small short-term financial assistance from the Government of Kerala. When we submitted our interim report in March 2017, we had estimated that a small grant of about Rs. 300 to 400 crores—which should be just adequate to meet the deficit for the next three months—would help a strengthened management to get down to the challenging task of improving operations and turning around the fortunes of the Organization.

3) Swapping of loans

We had proposed in our interim report that KSRTC should submit a proposal to swap the high interest/short repayment period loans against low interest/long repayment period loans. Around Rs. 1,200 crores worth of loans from KTDFC, HUDCO and District Co-operative Banks, outstanding as of 31 January 2017, were to paid back within 5–8 years at an interest rate of up to 12.65% per annum—causing cash outflows from KSRTC to the tune of Rs. 91 lakhs per day or Rs. 27.40 crores per month towards repayment. Should these loans be renegotiated against loans with an interest rate of 10.50% per annum and a repayment period of 12 years—with government guarantees—KSRTC's monthly debt servicing obligation will have fallen by half, helping it from the severe cash crunch that had made any turnaround policy impossible. Moreover, if the proceeds from the sale of assets as discussed earlier were to be used to dispose of the outstanding loans with the highest Equated Daily Repayment (EDI) and the remaining be swapped against lower interest/longer repayment period loans, daily cash outflows towards debt servicing from these accounts would only be Rs. 11 lakhs. This offered a window for KSRTC to retain Rs. 80 lakhs of its cash inflows—that approximated to Rs. 6 crores—from operations every day. That is, KSRTC could reduce its cash outflows by Rs. 24 crores every month. *(For detailed calculations and assumptions, see Appendix-3.)*

As per our suggestions, the Management had appointed SBI Capital Markets Limited as Debt Arranger for syndication of the Consortium of

Banks and for preparation of the Information Memorandum. All the existing loans were paid off in March 2018 using an adhoc loan from KTDFC as per an order from the Government of Kerala, and the Consortium loan agreement was entered on 31 March 2018. State bank of India, Canara Bank, Vijaya Bank and Lakshmi Vilas Bank joined the Consortium, thereby reducing the loan share from KTDFC. *(See Appendix-3 for the balance outstanding on the Consortium loans as on 30 September 2018).*

The total tenure of the consortium loan is 20 years, and has a lower interest rate of 9.20%. Current daily repayment (EDI) towards the consortium is Rs. 86.24 lakhs.

4) Renegotiation of terms concerning escrow accounts

Unplanned borrowings at onerous terms have meant that KSRTC's cash flows from the most attractive depots are transferred to an escrow account for meeting the debt service obligations of lenders. Such transfers towards interest and loan repayments—often several times more than the liabilities—undermine the Corporation's ability to plan its finances and conduct its normal operations. For example, in January 2017, the previous consortium of banks received collections from 27 depots amounting to Rs. 1.90 crores everyday against a daily liability of only Rs. 53 lakhs. It was mandated that a Debt Service Reserve Account (DSRA) with a balance approximating revenues of 15–17 days was maintained throughout the tenor for meeting any shortfalls in daily collections from the escrowed

depots. The balance used to get transferred back only after 2–3 weeks. Not only did this force KSRTC to forego the interest on the huge sums, it also put a heavy burden on the Corporation already under a cash crunch to carry out essential payments of daily nature, making it vital for the Management to renegotiate the terms with the creditors.

As per the new consortium agreement, DSRA is capped at Rs. 14 crores. Although revenues from 59 depots still go into escrow accounts towards repayment of loans, any amount exceeding the EDI of Rs. 86.24 lakhs is refunded to the Working Fund Account of KSRTC on the next day. This has eased the cash crunch in KSRTC to a considerable extent: the financial position is much stronger as regards making provisions for day-to-day expenditure.

5) Creation of KSRTC Pension Fund

With 5,557 employees retiring from the Corporation between 2017 and 2022, an already-ailing KSRTC would find it difficult to pay their superannuation benefits timely and effectively. Those employees who have joined the Corporation after 01 April 2013 come within the purview of the New Pension Scheme (NPS) introduced by the Government of Kerala wherein the age of superannuation is 60 years. According to the calculations by the KSRTC Management, if the age of superannuation for the employees who had joined prior to April 2013 is to be raised from 56 to 60 years, the Corporation could save to the tune of Rs. 450 crores from the

10% Treasury Savings Bank (TSB) account. This amount can then be used to create a Pension Fund to address the part of the pension liability to be borne by the Corporation.

6) Compensation for concessions

The Government of Kerala must compensate KSRTC for the losses it incurs on account of concessions towards students, the differently-abled, freedom fighters, MLAs & MPs (former & current) etc. However, caution must be given to KSRTC's procedure of valuating the amount foregone on account of concessions as their calculations seem inflated and pulled out of thin air. For example, KSRTC's calculation of concessions given to all categories excluding students in 2013-14 amounts to Rs. 105 crores, i.e. Rs. 28.8 lakhs per day. However, the Government must reimburse the social obligation costs that are only fairly and evidentially accounted for.

Summary

The turnaround in KSRTC's operations is contingent on the financial restructuring of its past liabilities. It assumes that the Organization has filled the essential senior managerial positions, especially that of the Financial Controller and the Head of Accounts, with managers possessing skills and capacities to renegotiate with lenders so as to secure better terms.

Yet the key strategy rests on an early sale of assets to substantially reduce the Corporation's total loans by at least one-third, and a small financial assistance from the State Government while the employees, unions and a strengthened management team work together to enhance productivity.

CHAPTER – 7

ORGANIZATIONAL AND GOVERNANCE STRUCTURE AT KSRTC

Any turnaround strategy needs to address the organizational challenges for the strategy to succeed. A strong organization with an appropriate structure led by high quality managerial talent to execute the new strategy is an essential pre-requisite.

This chapter provides an overview of what needs to be done in order that the organizational bottlenecks are addressed, and KSRTC is strengthened over the next few years. The Senior Management of KSRTC will be the main drivers of this organizational transformation. ***Hence, a new team of senior managers has to be 'assembled.'*** In addition, the organization structure needs to be modified for decentralization of decision-making as well re-assembling of units into viable profit centres. Only such decentralization will facilitate better utilization of assets and resources already available with KSRTC.

Board of Directors

Like any commercial public sector enterprise, KSRTC needs to put in place a modern governance structure led by a Board of Directors. The Board of

Directors should be reconstituted with subject specialists in transportation, management and finance. An empowered Board of Directors with authority to approve all executive actions must be constituted. This means that the Board will, for all purposes, replace the Ministry of Transport as the executive body that oversees the functioning of the Corporation. The Board must be responsible for monitoring the turnaround milestones; it shall consist of independent specialists who can monitor the senior management (through sub-committees of the Board) as well as support them through specialized advice. There is also need for a full-time Chief Executive Officer (CEO)/ Managing Director (MD) at the Corporation.

The Board will also be authorized to recommend and approve all executive decisions, including the use of flexible fares, high value services, approve creation of new positions within the Organization, as well as act as grievance redressal forum for all employees.

The incumbent Board of Directors at KSRTC plays a very important function as it is comprised of ***stakeholders representing workers, consumers, local political leaders, etc.*** They play a vital role in ensuring that the functioning of the Organization meets the expectations of all stakeholders. Such a board can also be reconstituted with representation from KSRTC officers, as the ***'Advisory Board'*** with powers to bring stakeholder grievances before the senior management, and if not addressed, to the Board of Directors, for remedial action.

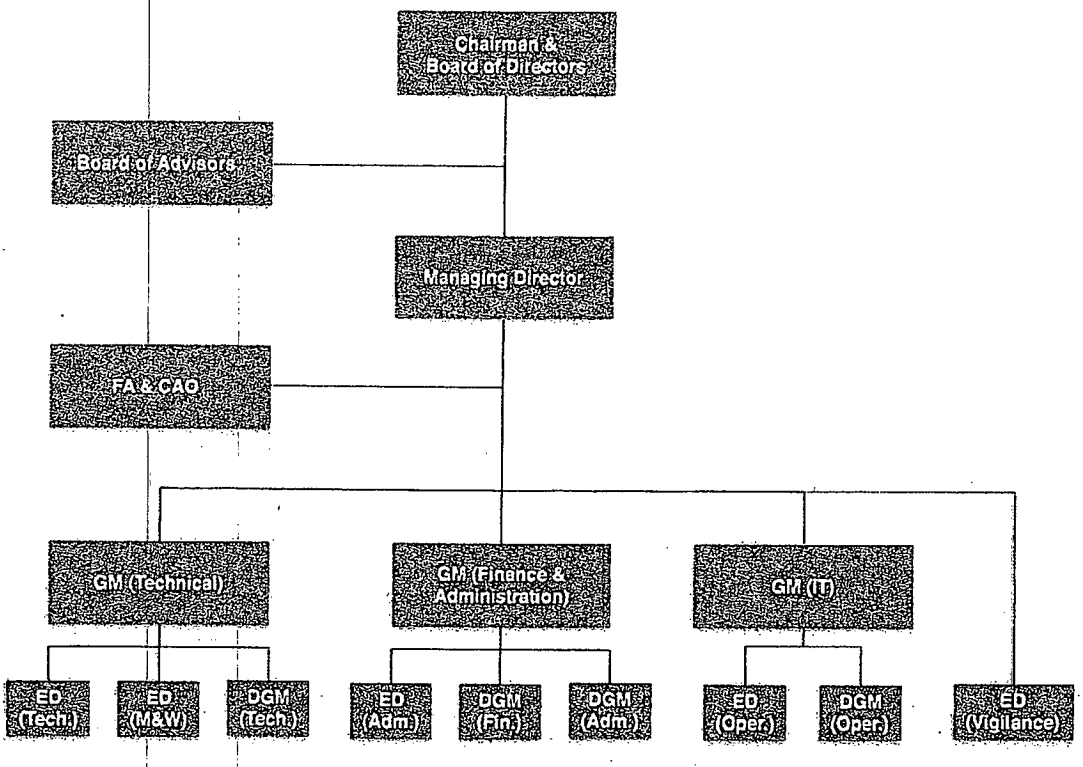
Top-level Management

Over the years, KSRTC has failed to attract managerial and administrative talent so abundantly available in Kerala. Several key positions like Financial Controller, Senior Accountants, statisticians and analysts for advisory function have been left vacant. The senior-most positions in the Organization are headed by Executive Directors (Operations, Technical, Administration etc.) with none of these positions tasked with coordinating the different functions. Should KSRTC turnaround and grow as a sustainable and profitable organization, it must immediately fill the gaps in the senior management positions, beginning senior General Managers/Deputy Managing Directors from outside the Corporation and a Financial Controller (with a team of accountants for assistance).

Current Human Resource policies prevent recruitment of requisite skills within the organization. Many key functions are entirely missing. Thus, there is no Manager for Human Resources or Information Technology at KSRTC. KSRTC has no clear policies to recruit, train, promote, evaluate and reward its employees. The only policies it has are aimed at recruiting drivers and conductors and few semi-skilled workshop personnel through Kerala Public Service Commission (Kerala PSC). There is no clarity on policies to recruit managers and senior skilled personnel like accountants, Information Technology experts or technical personnel like engineers, transport specialists, etc.

As the immediate task, the Organization needs to induct 8 or 10 senior managers with necessary domain knowledge and skills in the areas of finance, Management Information Systems (MIS), fleet management and route planning, automobile workshop management, auto-engineering and Human Resource Management. For each of these positions, people with requisite skills and at least ten years of experience in the areas of specialization need to be recruited at the level of General Managers/Deputy General Managers.

Fig. 7.1: Renewed Organizational Chart for KSRTC



Middle-level Management

Restrictive agreements with employees have kept several managerial and critical positions limited to workers who do not necessarily have the qualifications or skills required to undertake the task. Under the pressure from Trade Unions, most of the managerial positions came to be filled with lower level workers, with or without necessary qualifications. Thus, all Depot Managers are either drivers or conductors, making depot management the weakest link in the managerial chain. Depot management is a crucial task for KSRTC as it determines the fleet utilization, crew management, turnaround at depot workshops and the profitability of fleet/depot operations. In the absence of talented and skilled Depot Managers capable of acting as profit centre heads, the fleet management is handled by the Head Office, providing for delays and sub-optimal decisions. The responsibility for the dismal state of financials and asset utilization rests on the shoulders of these Depot Managers. KSRTC should also consider timely revamp and revision of those agreements that promote unqualified employees to critical positions.

The closed-shop promotion policy has also meant that many other senior positions, including those of Executive Directors, have been captured by former conductors and drivers. All this makes the task of engineering a turnaround so much more difficult. As we suggested in our draft report, the Organization needs to induct better quality managers at all levels. It must begin this transformation and change at the depot level. The positions of Depot Managers should be advertised for and recruited through Kerala PSC,

with the position open only to people possessing Business Management and Operations Research qualifications. Those internal candidates who are desirous should compete with these candidates for the positions. In other words, all positions from Depot Managers and upwards shall not be open to internal workers lacking qualifications, and not without competition from managerial talent available in Kerala.

Work Norms & Training

What is more, descriptions of many of the jobs have been either overlapping or not clearly defined—resulting in poor delegation of work, concentration of work at the top level, delay in decision-making; duplication, inertia and deficient monitoring; thus affecting the overall health of the Organization. It is imperative that KSRTC clearly define the roles and responsibilities of each managerial and administrative staff to streamline the organizational activities smoothly, and to identify the deficiencies in manpower or their skills. Clarity in work norms precedes efficiency and commitment which, in turn, are prerequisites in ushering in a healthy work culture within the Organization.

Once the skill deficiencies have been identified—there is no doubt deficiency in skills is pervasive in KSRTC—adequate training, consistent with their functional roles, must be given to the existing staff in all wings of the Organization, viz. Operations, Finances, Human Resources etc. With KSRTC's training school focused on lower level operating staff, unit officers and supervisors remain the weakest link within the Organization. Initially,

KSRTC should use the training facilities offered by STUS in neighbouring states like Andhra Pradesh, Tamil Nadu and Karnataka (which has a tie-up with IISc, Bengaluru).

Zones

At present, KSRTC has five Zonal Offices, catering to the zones of Thiruvananthapuram, Kollam, Ernakulam, Thrissur and Kozhikode. These zones are of unequal size and resources, and it is not clear what has been the basis of formation of such zones. The Zonal Managers are bereft of any responsibilities or powers, and their offices are non-functional, to say the least. These offices were created with the purpose of coordinating the schedules in the depots under their jurisdiction and monitoring the overall level of operations, but have become an additional financial burden to the Corporation. No clear operational targets and budgets are set before the Depot Managers by the Zonal Offices, nor is there any clear process of performance evaluation.

We recommend that the KSRTC Zones be limited to three large cities of Kerala, namely Thiruvananthapuram, Ernakulum and Kozhikode. These cities have a mix of intra-city and intercity schedules, are important origin or destination points for passenger traffic, and can serve as viable profit centres. The Zonal General Manager can then be empowered to rationalize routes and deploy buses, and control all the depots and workshops in the area. Only such direct control will ensure that zones function as viable

business entities, without having to look for approvals from the Head Office for every small action as well as redeployment of assets and personnel.

Zonal Managers must be given clear functional roles with power to penalize the wrongdoers and make transfers in case of manpower mismatch in depots. Once the workshops report to the Zonal managers, he/she shall be responsible for ensuring that buses are on-road as per demand and without delays. In short, Zonal Offices should be made independent profit centres with their own budgets and targets. This necessitates zones to be headed by freshly recruited and qualified General Managers, and an IT-based budget and financial control system, with adherence to financial policy manuals, to be in place.

Accounting & MIS

That the accounts are manually prepared and haphazardly maintained in an organization of the scale of KSRTC is surprising. Not only are they poorly maintained and inconsistent, there is also ambiguity regarding the accounting procedures to be followed and a lack of ownership of data regarding accounts. There is a total absence of any kind of cost control systems within the Organization. We had strongly recommended in our interim report that KSRTC must immediately appoint an experienced Chartered Accountant to oversee all accounts in the Organization, and conduct annual internal audits of its accounts. Due to accounts not being finalized, the last annual audit done of KSRTC during the submission of our interim report in March 2017 pertained to the financial year 2013-14.

The efforts at computerization of operations have been piecemealed and half-hearted. One may suspect that their integration with the control system has been consciously sabotaged. KSRTC has engaged outside consultants to assist in computerization of operational data, but the project has been incomplete for many reasons. Partially-mechanized components like GPS should be fully integrated with other operational areas in order to avoid duplication and wastage of manpower. Computerization can help automate fleet, manage manpower and inventory, and integrate accounts; thereby bringing efficiency within the Organization, and helping in curtailing redundant jobs in the future.

Absence of computerization also means that KSRTC totally lacks any Management Information System (MIS) or even a financial reporting and control system that is not manually driven. (Manual controls have been seen to be open to manipulations.) Establishing an effective MIS headed by a General Manager versatile in organizational computerization, integration of technology like GPS for Operations Controls, and marketing of services is absolutely essential for compiling consistent data that can be owned and analyzed for the purpose of corrections within and development of the Organization.

Summary

The cue to the turnaround strategy is strengthening the organization. This must begin with a professional Board of Directors, empowered to authorize all decisions made by the CEO and his senior managers. The Board will also

monitor the turnaround milestones and help make KSRTC a more market-responsive organization.

The Corporation is to be restructured into three Zones headed by General Managers, that as act as profit centres with full autonomy on deployment of assets and manpower. Rapid introduction of computerization in accounts, and establishment of an effective MIS and fleet monitoring software is vital. All manual records are to be phased out within one year.

A large-scale training and skill development program, linked to performance evaluation and promotion policies, is the last leg of this organizational development strategy.

APPENDIX – 1
FLOAT UNITS REQUIRED AT DEPOTS & WORKSHOPS

The tables in this appendix chapter are sourced from a case study of float unit requirements in TSRTC conducted by Mr. Ch. Hanumantha Rao. These are to read as one float unit of the specified item required for the number of scheduled kilometres. As such, each workshop must calculate how many floats of each item must be in stock at depots and workshops at a point in time, depending on the scheduled kilometres of operations under its purview. It must also be noted that the number of aggregates/spares to be provided to a depot shall be subjected to a minimum of one. Also, while computing the float requirements, any fraction, however small it might be, shall be rounded off to the next integer.

Table-A3.1: Float Units Required for Major Assemblies

Item	Scheduled KMs per Unit
Engine	10,000
Front Axle	14,000
Rear Axle	14,000
Steering Box	10,000
Gear Box	8,500
FIP	5,000
Self-starter	5,000

Table-A3.2: Float Units Required for Sub Assemblies

Item	Scheduled KMs per Unit
Injectors (set)	2,000
PP Shafts (set)	6,000
Air Compressor	5,000
Water Pump Assy	5,000
Cylinder Head Assy	5,000
Radiator	5,000

Table-A3.3: Float Units Required for Major Spares	
Item	**Scheduled KMs per Unit**
Front Hub	15,000
Rear Hub	15,000
Clutch Housing	15,000
Air Cleaner (Complete)	5,000
Fuel Twin Filter Assembly	5,000
Feed Pump	5,000
Flywheel Ring Gear	10,000
E1 Valve (Leyland)	3,000
Unloader Valve	3,000
Set of Slack Adjusters (Leyland) - 4 nos.	3,000
Set of Spring Brake Chambers (Leyland) - 4 nos.	14,000
Hand Brake Valve	10,000
AC Head	5,000
Tandem Master Cylinder (Tata)	5,000
Set of Wheel Cylinder (Tata): Front Axle	5,000
Set of Wheel Cylinder (Tata): Rear Axle	5,000
Air Tank+A52	10,000
Clutch Disc	5,000
UJ Cross	6,000
Set of Kingpin Bushes (Leyland) - 4 nos.	10,000
Set of Kingpins (Leyland) - 2 nos.	10,000
Set of Front Hub Bearings: Outer - 2 nos.	5,000
Set of Front Hub Bearings: Inner - 2 nos.	5,000
Set of Rear Hub Bearings: Outer - 2 nos.	8,000
Set of Rear Hub Bearings: Inner - 2 nos.	8,000
Set of Leaf Spring Assembly: Front- 2 nos.	2,000
Set of Leaf Spring Assembly: Rear- 2 nos.	3,000
Tie Rod Assembly	15,000
Drag Link	15,000
Set of Brake Drums: Front - 2 nos.	5,000
Set of Brake Drums: Rear - 2 nos.	5,000
Set of Spring Brackets: Front - 2 nos.	5,000
Set of Spring Brackets: Rear - 2 nos.	5,000
Shackles - 4 nos.	10,000
Axle Shafts - 2 nos.	5,000
Shock Absorbers: Front - 2 nos.	5,000
Shock Absorbers: Rear - 2 nos.	5,000
Track Rod Arms (Leyland): LH	5,000
Track Rod Arms (Leyland): RH	5,000
HSD Oil Tank	6,000
Steering Wheel	15,000
Wiper Machine	5,000
Head Light Reflectors	5,000
Hydraulic Jacks	2,000
Batteries	10% of Batteries Held

APPENDIX – 2
MANHOURS REQUIRED FOR DIFFERENT WORKS AT WORKSHOPS

TABLE-A1.1: Manhours for Different Types of Bus Bodies	
Type of Bus Body	**Manhours (in hours)**
District Ordinary (LEYLAND 222" WB)	1658
Express (LEYLAND 222" WB)	1658
City Ordinary (LEYLAND 222" WB)	1554
New Age Ordinary (LEYLAND 222" WB)	1658
218" WB District Ordinary (TATA)	1604
218" WB Express (TATA)	1604
218" WB City Ordinary (TATA)	1507
218" WB New Age Ordinary (TATA)	1604
205" WB Sapthagiri	1554

TABLE-A1.2: Manhours for Overhaul of Units	
Unit	**Manhours (in hours)**
370 engine	106
HINO engine	122
Engine TATA 692/697	99
Engine TATA Cummins	107
CO of FIP (MICO)	6
CO of FIP (HINO)	7
FIP recalibration	2
Front axle	42
Self starter	6
Steering box	7
Radiator new copper (Copper)	8

TABLE-A1.3: Manhours for Bus Body Overhauls	
Type of Bus	**Manhours (in hours)**
Ordinary	942
Express	1185
Deluxe	1293
City Ordinary	930
Metro Express	1086

Note: All the above tables are sourced from *'The Work Measurement Study for APSRTC'* by National Productivity Council, Hyderabad.

APPENDIX – 3
DAILY REPAYMENT OF KSRTC'S HIGHER-EDI LOANS AFTER SWAPPING OF LOANS

TABLE-A2.1: Details of KSRTC's Higher-EDI Loans					
Name of the Bank/ FI	Loan Availed (in Rs. crores)	Tenure (in years)	No. of Repayments (Tenure*365)	Rate of Interest	EDI (in Rs.)
DCB, Palakkad	293	7	2555	12.00%	1,695,243
DCB, Ernakulam	191	7	2555	12.00%	1,105,090
HUDCO	353.7	8	2920	11.00%	1,821,624
KTDFC	610	5	1825	12.65%	4,510,776
TOTAL	1,447.70				9,132,733

Source: Own calculations using KSRTC Data as on 31/01/2017

Current monthly cash outflows towards repayment of higher-EDI loans = Rs. (9,132,733*30) = Rs. 27.40 crores.

TABLE-A2.2: Details of KSRTC's Higher-EDI Loans after Swapping of Loans					
Name of the Bank/FI	Loan Outstanding (in Rs. crores)	Tenure (in years)	No. of Repayments (Tenure*365)	Rate of Interest	EDI (in Rs.)
DCB, Palakkad	205.58	12	4380	10.50%	825,630
DCB, Ernakulam	128.97	12	4380	10.50%	517,957
HUDCO	282.24	12	4380	10.50%	1,133,505
KTDFC	574.72	12	4380	10.50%	2,308,134
TOTAL	1,191.51	12	4380	10.50%	4,785,226

Source: Own calculations & assumptions using KSRTC Data as on 31/01/2017

From the above table, it is clear that if the outstanding loans from the mentioned banks/financial institutions are swapped against loans offering longer repayment periods at 10.50% interest, KSRTC's daily repayment

towards debt servicing would fall by Rs. 43.5 lakhs [Rs. (9,132,733–4,785,226)]. In other words, KSRTC's daily cash outflows can be contained by Rs. 43.5 lakhs, helping it reduce its monthly cash crunch by Rs. 13 crores.

Once KSRTC can sell its assets worth Rs. 915 crores, these proceeds should be used immediately to dispose of the most expensive loans as far as KSRTC's daily repayments are concerned. This would mean that all of the outstanding loans from KTDFC and HUDCO, along with Rs. 58.04 crores [i.e. Rs. 915–(574.72+282.24) crores] worth of loans outstanding from DCB Palakkad can be repaid completely.

TABLE-A2.3: Details of KSRTC's Higher-EDI Loans after Reduction of Debt through Sale of Assets & Swapping of Loans

Name of the Bank/FI	Loan Outstanding (in Rs. crores)	Tenure (in years)	No. of Repayments (Tenure*365)	Rate of Interest	EDI (in Rs.)
DCB, Palakkad	147.54	12	4380	10.50%	592,536
DCB, Ernakulam	128.97	12	4380	10.50%	517,957
TOTAL	276.51	12	4380	10.50%	1,110,492

Source: Own calculations & assumptions using KSRTC Data as on 31/01/2017

If the swapping of loans is carried out after the expensive loans have been disposed of, the total reduction in daily cash outflows would be Rs. 80.22 lakhs [Rs. (9,132,733–1,110,492)]. This would amount to Rs. 24.07 crores per month as the monthly repayment towards higher-EDI loans would now be only Rs. 3.33 crores.

The above tables and analysis were retained from our interim report. Although the sale of assets and the subsequent paying off of debts have not actualized till date, KSRTC has been able to enter into a more favourable Consortium agreement on loans. The outstanding loan position of this new consortium loan as on 31 September 2018 is presented in the table below.

TABLE-A2.4: Balance Outstanding of Consortium Loans as on 30 September 2018

Name of the Bank	Amount (in Rs. Crore)
State Bank of India	995.22
Canara Bank	497.75
Vijaya Bank	498.49
KTDFC	944.55
Lakshmi Vilas Bank	149.36
TOTAL	**3,085.37**

Source: KSRTC

Section officer