

*Hearty Welcome to a presentation
on*



Viable City bus in Small Cities

N. Manjunatha Prasad, IAS
Managing Director

KARNATAKA STATE ROAD TRANSPORT CORPORATION



In this presentation...

- Mobility in Urban Areas.
- Emphasis on need of City services in Small cities.
- KSRTC Profile.
- KSRTC City operation in Tumkur City.
- Imperative points on City operation in small Cities.
- Support needed for small City operations.

Mobility in Urban Areas



- Current Situation.
 - Lack of Public Transport System.
 - High proportion of 2-wheelers.
 - Auto-rickshaws as para-transit.
- Recent Changes in Policy Framework.
 - National Urban Transport Policy (NUTP) 2006.
 - JnNURM – Urban Transport Reforms.

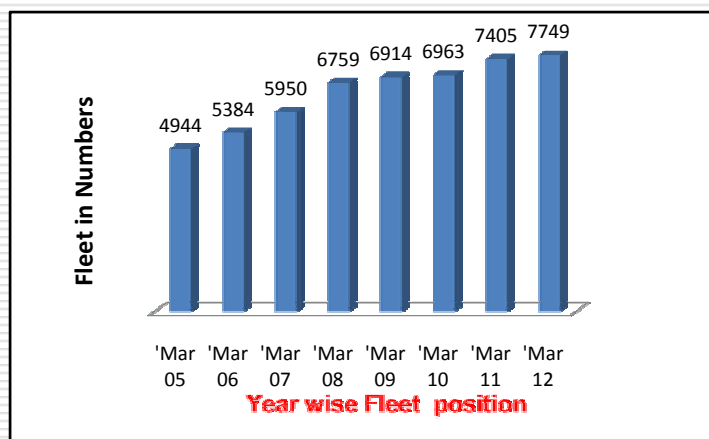
Emphasis on the need of city services in Small Cities



- Urbanisation is happening rapidly in many parts of the developing world.
- People are being 'pushed' from rural areas and 'pulled' toward the cities.
- Every year more and more people arrive to these growing cities in search of a better life for themselves and their children.
- Mobility is necessary for human living and economic growth.
- Tier-II & III cities in India are growing fast and it is expected that in the coming 20 years the population in these cities may grow at a faster rate.
- Proper urban transport system is absent in small cities leading to dependence on personalized two wheelers and also on auto rickshaws, etc. This has led to high vehicular congestion, resulting in overall poor mobility in these cities.



KSRTC: Profile



- Born 1961:
- In 1997, split into 4 corporations:
 - (10,476 buses)
- Karnataka: 23,000 public buses now
- KSRTC : Now
 - 8339 buses
 - 25 Lakhs passengers/day
 - 27 Lakhs kms/day
 - Rs 2700 crores turnover and growing . . .

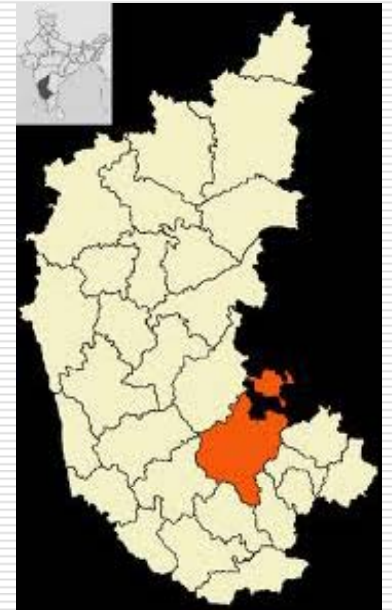
The logo of Karnataka State Road Transport Corporation (KSRTC) is circular. It features a central emblem with two birds facing each other, flanked by a crown-like element. The emblem is surrounded by the letters "K S R T C". Above the circle, the name "ಕರ್ನಾಟಕ ಸಾರ್ವಜನಿಕ ಸಾರಿಗೆ ಸಂಸ್ಥೆ" is written in Kannada script. Below the circle, the slogan "CONNECTING KARNATAKA WITH CARE" is written in English.



About Tumkur City



- District H.Q with ten taluks
- Strategic location with gateway for 15 districts of Karnataka
- Proximity to Bangalore -64 km
- Connects two highways NH-4 and NH-206
- City Municipal Council (CMC) jurisdiction 51.85 sq. km
- Population at 3,05,821 as per 2011 census, population density at 4794 persons per square kilometer.
- Agricultural and economic hub
- Educational centre (5 engineering & 1 medical college)
- Tourist centre with many religious institutions and temples



Transport Situation

• Road Network

- National Highways 4 and 207, and State Highways 33 and 94 pass through the city.
- KSRTC is the major inter-city and intra-city service provider in Tumkur.

Vehicular Profile – Automobile composition in Tumkur City

Vehicle Type	No of Vehicles
Motor Cycles	75,744
Cars	4,520
Cabs	539
Auto-rickshaws	5,082
Omni-buses	507
Tractors & Trailers	5,189
Ambulance	22
Goods Vehicles	3,086
Others	3,062
Total	97,751



KSRTC - Public Transport Scenario in Tumkur City after introduction of City Bus services

Sl.	Particulars	Details
1	No. of depots	1
2	Schedules	50
3	Fleet held	51
4	Annual Schedule kms (in lakh)	36.19
6	Cost Per Km (in Rs)	28.62
7	Earning Per Km (in Rs)	28.82
8	Margin Per Km (in Rs)	0.20

The local depot in Tumkur operates city buses along with moffussil buses. KSRTC has one bus station in Tumkur city

Currently Electronic Ticketing Machines are being used for ticketing system.

- Daily about 50,000 ridership leads to modal shift of more than 20% in a short period from February 2011 till date.





Challenges Faced

- Modal shift from Para transport.
- Frequency and Reliability.
- Competitive and economical fares.
- Protests from para transit operators.



Challenges – How we overcame

- Introduction of specially designed buses with wide low floor doors, aesthetic look, LED destination boards, GPS based announcement system introduced.
- Promotional fares were introduced.
- Training to Staff for courteous behavior with the passengers.
- Regular monitoring

KSRTC City Buses in Tumkur City

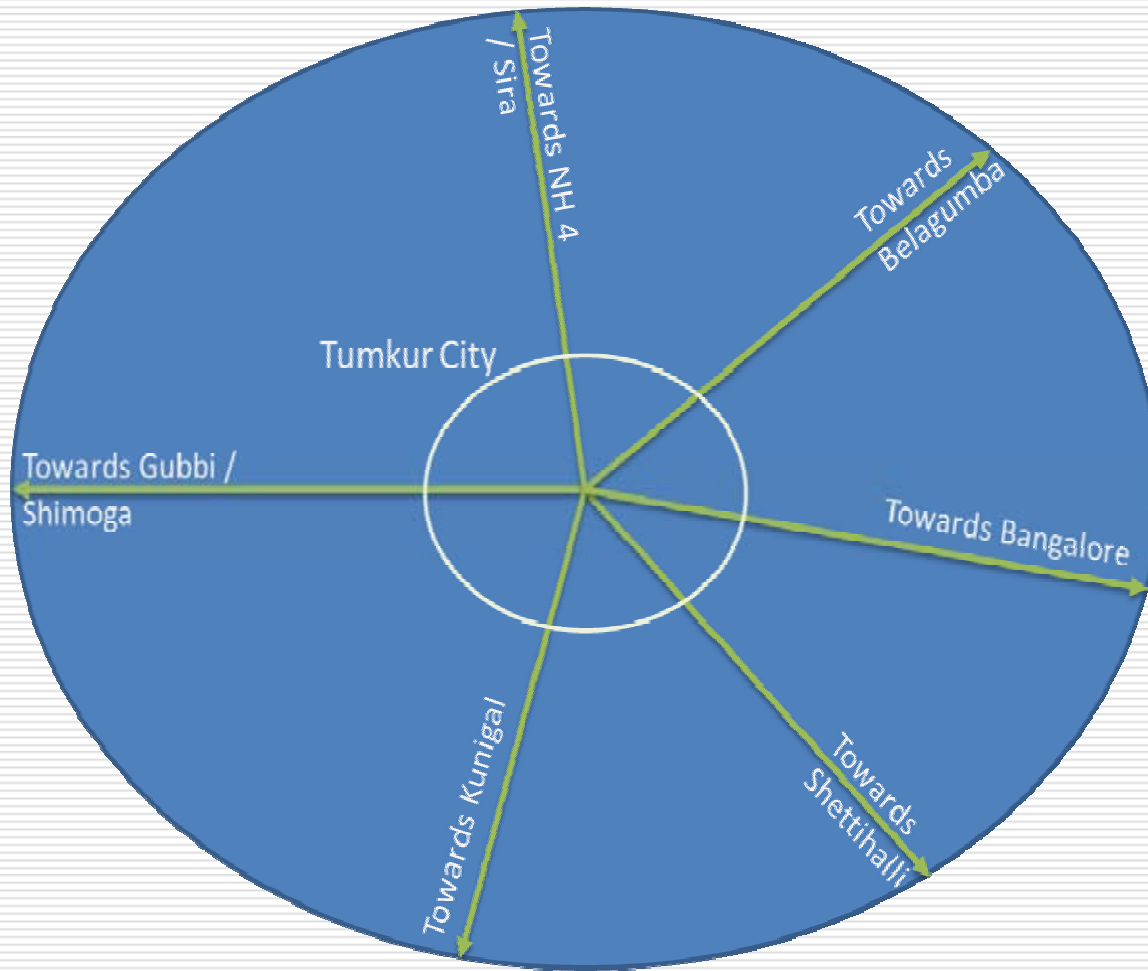


KSRTC has made scientific Route Selection with focus on:

- periphery to periphery through city centre
- exclusive field study for route selection
- 10 minute frequency & timings
- estimation & deployment of required buses

Tumkur City Bus service:

Route Selection – Periphery to Periphery through city center



KSRTC City Buses in Tumkur City

City buses in Tumkur have been introduced with emphasis on:

- unique bus branding
- colour & graphics
- easy entry and exit with wide centre door
- more standing area
- LED in-bus and destination display boards
- GPS based automatic next stop announcement system





Organizations concerned with mobility in Tumkur

- Tumkur City Municipal Council
- Tumkur Urban Development Authority
- Tumkur Traffic Police
- Regional Transport Authority
- KSRTC
- KUID & FC



Type of buses	Basic Cost per bus in Rs. Lakhs	No. of buses	Cost of Buses in Rs. Lakhs	Destination Boards in Rs. Lakhs	Total Cost in Rs. Crores
Class - C	18.77	50	938.5	60.00	9.98



Economics of City Bus Operations – Operational Cost

Parameters	Cost	
	In paise per km	In Rs. per km
Fuel Costs (HSD)	1067.6	10.67
Spares	20.0	0.20
Tyres and Tubes	70.0	0.70
Lubricants	10.0	0.10
Other Consumables	4.3	0.04
Batteries and Electrical	0.0	0.0
Depreciation	281.0	2.81
Tax	158.5	1.58
Repair/Replacement Cost	5.0	0.05
Staff	994.4	9.94
Depreciation on other assets	15.0	0.12
Interest	23.0	0.23
Central Overheads	50.0	0.50
Mact	10.0	0.10
Miscellaneous	145.0	1.45
CPKM	2861.7	28.62



Economics of City Bus Operations

> Viability

Description	Details
Avg. vehicle utilization (km/vehicle/day)	191.1
Seating Capacity	43+2
Present fare / km (Rs.)	0.58
Earnings Per Kilometer (Rs)	28.82
Cost Per Kilometer (Rs)	28.62
Margin Per Kilometer (Rs)	0.20
Margin Per Annum (Rs in Lakhs)	7.24

Economics of City Bus Operations

➤ Capital Investments recovery

No. of buses	Cost of Buses in Rs. Lakhs	Depreciated Cost per Year in lakhs	Time for recovery of Capital Investment
50	998.5	101.70	10 Years



- Market Segmentation
- I.T. initiatives like introduction of ETM, PIS / ITS, etc.
- Vehicle Maintenance.
- Transport Infrastructure.

Market Segmentation

Segmentation is necessary to build up the market:



Class	City
Premium	Low Floor Volvo
Luxury	Semi Low Floor "Marco Polo" (2 x 2) Semi Low Floor "Nagara Sarige" (2 x 2)
Ordinary	High Floor City buses (A.L. / TATA) (2 x 2)

Electronic Ticketing Machines



District

- First to shift completely to ETMs in City service in Mysore and Tumkur.
- Covering the entire Mysore and Tumkur city operation, issuing daily 2.8 lakh tickets.
- Reduce drudgery and time
- Collect valuable data for planning
- Accurate Financial Accounting
- User Friendly
- Enables MIS Reporting

Vehicle Maintenance



Action:

- Periodical training for mechanical staff
- Proper Inventory management
- Daily action on defect slips in log-sheet
- Regular docking/oil change
- Eliminating old vehicles



Result:

- Reliable service
- Reduced breakdowns
- Reduced off-road



Support Systems for Successful City Transport System

- Bus Stations (Existing) and Bus Stops
- Footpaths and walkways leading to the Bus Stops
- Signage: Within the Bus and Bus Stops
- Timetables
- On Google Transit
 - Using the Google Transit Feed Specification
- Last mile connectivity and
- Multimodal options

Support required for small city bus operations



- Small cities require financial assistance from GOI and State Govt's
 - For rolling stock
 - For passenger amenities
 - Passenger information system
 - Bus stations & shelters
 - Subsidy in HSD
- Support for urban transport initiatives in these cities essential under some scheme.



Initiatives of KSRTC thereafter.....

- Taking cue of the success of Mysore and Tumkur city services, ksrtc introduced city Bus services in another 15 small and medium cities with 367 Buses.
- Submitted proposals to MOUD, for funding of city buses under jnNurm phase-2 for 30 cities.
- MOUD has recently agreed to sanction 1169 buses for these 30 small cities



Issues to be addressed to promote Public Transport

- Dual pricing policy of Diesel
- Automatic Fare Revision
- Reducing Motor Vehicle Tax
- Last Mile Connectivity
- Support from State Govt in reducing VAT & Entry tax on Diesel, Reimbursement of Social costs to STUs
- Use of IT & ITS



Thank You

md@ksrtc.org