

Institutional Mechanism for Improving Urban Transport System in Bangalore

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Abstract: The Institutional setup for the urban transport is very different and distinct to that of prevailing land management institutions and therefore needs to be designed to meet the goals and objectives of national urban transport policy. This paper delves into aspects that enable the design of institutional framework and its position within the overall institutional landscape of BMA to support urban transport and mobility. The introduction of the Unified Metropolitan Transport Authority (UMTA) may be the first step in the reform process. The author emphasizes that as part of the institutional strengthening; along with the legislative backup, there is a need for including the wider section of citizens. Participation of the citizens in the formulation as well as during implementation is necessary for improving urban transport system in Bangalore Metropolitan Area.

Key words: Urban Transport, Land Use, Mobility, Metropolitan, Institution, Authority,



I. BACKGROUND

There are 53 cities with million plus population as per Census of India 2011 compared to the 35 cities in the year 2001. About 43 percent of the urban population of India lives in these metropolitan cities. Indian metropolitan cities are faced with a number of difficulties in offering solutions oriented with urban mobility. The challenges are specific to the size of city, growth, population and legal institutional setup. Historically, different organizations have been the responsible for planning, funding, design and provision of services. This has led to multiple stakeholders with often overlapping jurisdictions, duplicity of services and serious gaps. Benchmarking of public transport (PT) and the modal share of PT reveals poor usage by the citizens with very low satisfaction levels. The end-user, i.e the citizen is to be provided with better mobility solutions with better user experience as promised by the various actors in the transport sector. The urban transport sector is proposed to receive higher public as well as private sector investment. There is an urgent need for greater co-ordination as well as facilitation for the implementation of strategic programmes and projects.

The National Urban Transport Policy (NUTP) (2006 and 2014) formulated by the Government of India (GOI) envisages setting up of Unified Metropolitan Transport Authority (UMTA) in all million plus cities, in order to facilitate effective coordinated planning among various agencies, for the smooth implementation of urban transport projects. It lays emphasis on the integration of the urban land and transport. Integration requires working out the logic of the development of the urban land with respect to its correct location and sizing of the economic investment on land and transport infrastructure, to reap both economic and social benefits. The Institutional setup for the land management is very different and distinct to that of the urban transport institution and therefore needs to be designed to meet the NUTP goals and objectives.

II. BACKGROUND OF BANGALORE

Bangalore as capital of State of Karnataka and has witnessed growth of 4.46 per cent on a decadal basis (1) with a population of 8.47 million. Known as the Silicon Valley of India, the city has seen one of the highest vehicular growths in the country along with the large population growth. With the increase in population and the expansion of the city, the problem of mobility has been amplified. The BBMP area stands at an area of 709.50sq.km and the larger region of the BMR at 8000 sq.km with number of settlements/towns.

The increase in the personalized modes of transport have grown at a tremendous rate and two wheelers constitute more than 70% of the total volume, while cars comprise 15%, autos 4% and the remaining 8% includes other vehicles such as buses, vans and tempos. Travel speeds have dropped to an average of 15 Kmph during the peak hours. The insufficient parking spaces or inadequate provision of parking spaces within

buildings too have impacted the available road space. The supply of parking spaces have been very slow compared the rising demand. The mobility indicators study (2011) carried out by Directorate of Urban Land Transport (DULT) indicate the growing stress in the city and poor condition of the transport system.

III. KEY PLAYERS

The policies and initiatives for the urban transport lay impetus for higher priority to the public transport. Shift from the private modes of transport to public transport as preferred mode of transport is key objective. Today, there are a number of public and private organizations involved with the urban transport in the Bangalore Metropolitan Area. The State Transport Department, Karnataka State Road Transport Corporation (KSRTC), Bangalore Metropolitan Transport Corporation (BMTC) is actual operator of the bus fleet.

Bangalore Metro Rail Corporation Ltd. (BMRCL) is in charge of the Bangalore Metro. Private institutions /schools and Factories and other large institutions also have their own transport. This is usually through hiring of buses from BMTC or run their own fleet of buses servicing their own employees or the students. For provision of public transport, KSRTC and BMTC were created as state government undertaking. KSRTC was formed in 1961 under Road Transport Corporations Act, 1950. KSRTC is owned by Karnataka State Government with the Government of India as a shareholder. BMTC was formed in 1997 as a result of split of KSRTC, in the context of Bangalore's expansion. BMTC was formed to provide transportation in the city. At present, urban public transport in BMR is provided by the BMTC and KSRTC. KSRTC operates within the state and offers connectivity to key cities/ towns in other states as well. Within BMR, It provides bus services to Ramanagaram, Channarayana and Kanakapura.

The Bangalore Metropolitan Transport Corporation (BMTC)(2) operates on any given day with nearly 6429 vehicles with about 6217 schedules and covering nearly 12.99 lakh kms. The daily trips are about 76243 carrying about 5.02 million passengers with a revenue generated is about 4.88 Crores. In order to promote awareness of the bus usage, on 4th Saturday of every month is "Bus day". The Bangalore Development Authority (BDA) is responsible for the Master Planning and Land use Management, development of important roads forming a network and formation of sites for housing as per the Act provisions. While Bruhat Bengaluru Mahanagara Palike (BBMP) is the urban local body responsible for the provision of municipal services, according building use permissions, development of road network, putting up bus shelters, enforcement of the building byelaws. The Road Transport Organization (RTO) carries out its functions as per the Motor Vehicles Act in registering vehicles, issuing fitness certificates, enforcement of the Act provisions, issuing of Licenses for drivers of various vehicles, etc. The Bengaluru City Traffic Police are responsible for the regulation of traffic, safety and enforcement of the Motor vehicle Act for violations. The City Police have initiated the B-TRAC Programme in 2010, which aims at addressing the following:

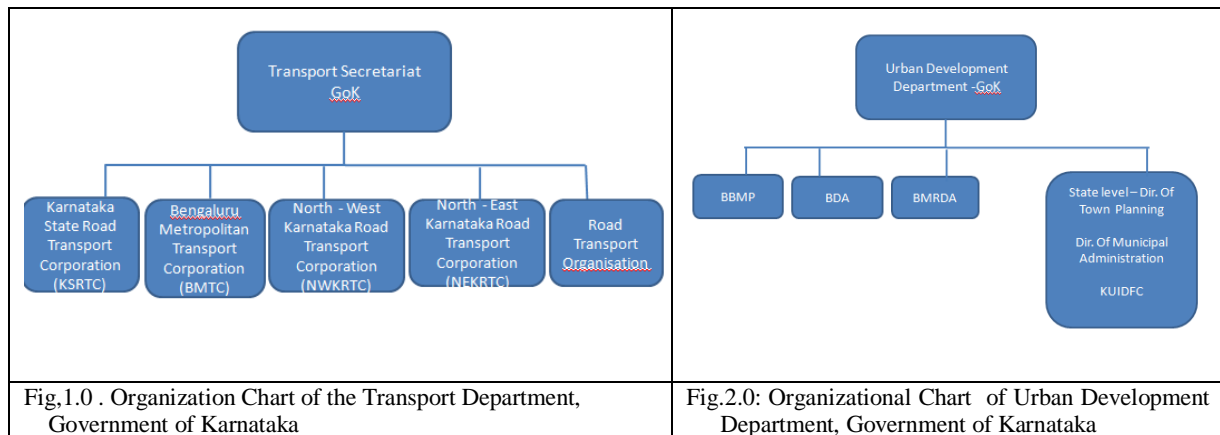
- a) Junction Improvement
- b) Intelligent Transportation Systems
- c) Surveillance / Enforcement cameras
- d) Street Furniture
- e) Traffic Enforcement Cameras
- f) Education / awareness & capacity building

With the City's compartmentalized approaches to widening of roads or construction of flyovers and grade separators, introduction of buses, development of layouts at the periphery, permissions for the work centers, and changing land use from residential to commercial uses have further enhanced the challenge of mobility.

IV. INSTITUTIONAL LANDSCAPE

Strategic functions such as the planning for mobility, long term financing, and policy formulation are handled by the various departments in response to reform agenda or to address mission programmes. The transport is handled by the State Transport Undertaking. BMTC is exclusively for the BMR region. The RTO is statewide organization and also covers Bangalore Region.

The BBMP has an extent of 709.50 sq.km of which, Bengaluru Development Authority for Metropolitan area (1307 sq.km) and Bangalore Metropolitan Regional Development Authority for the BMR region (8000 sq.km) are responsible for the development, spatial planning and infrastructure services within the region comes under the UDD. The state level organizations such as the Directorate of Town planning, Directorate of Municipal Administration, Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC) are also under the urban Development Department. The Bengaluru City traffic police come under the State Police within the Home Ministry.



V. CURRENT FUNCTIONING

The impact of the current functioning is witnessed by the lack of comprehensive mobility solution. This is observed at both at the strategic level in pursuing long term capital intensive projects and programmes in co-ordinated and lack of mobility solutions at the “ground level”. For instance, even the location of bus stops does not follow the public transport requirements. Major decisions such as decentralization of the bus stations ignoring the actual transit needs of the long and short distance travelers are missed out. Measures for the integrated transport operations by common ticketing, sharing of the facilities, common planning and scheduling, etc. are still to be addressed.

The Planning and mobility plans are drawn up by Planning authorities (Comprehensive Traffic and Transport Study for BMR undertaken by the BMRDA) who have very little to do with the actual execution powers or positioned in the hierarchy of organizations to dictate the implementation of the proposals or even to provide adequate co-ordination.

A matrix of the organization and functions are given below:

Table .1: Matrix Showing the Organizations and Functions Being Carried-out

| Organisations | SWR | BMLTA | KSRTC | BMTC | BMRCCL | RTO | BCP |
|------------------------------|------|-----------|-------|-------|--------|-----|-----|
| Mode | Rail | All modes | Buses | Buses | Metro | | |
| Functions | | | | | | | |
| Formulation of Policy | | | | | | | |
| Legal basis -urban transport | | | | | | | |
| Raising funds | | | | | | | |
| Planning | | | | | | | |
| Development | | | | | | | |
| Operations and Maintenance | | | | | | | |
| Monitoring | | | | | | | |
| Regulation | | | | | | | |
| Land use integration | | | | | | | |

Functioning at the Respective Organizations

VI. THE NATIONAL URBAN TRANSPORT POLICY (NUTP)

The National Urban Transport Policy (NUTP) (2006, 2014) is the guiding policy for the state on Urban Transport. It encourages greater use of public transport and non-motorized modes. The policy also highlights establishing effective regulatory and enforcement mechanisms that allow a level playing field for all operators of transport services and enhanced safety for the transport system users. It is emphasized that the policy interventions need to be taken up on immediate basis for improving the linkages through public transport as it improves social integration and supports growth of the economy. Initiatives such as use of cleaner technologies,

concessions and benefits to encourage use of renewable sources of energy, programmes to discourage the use of private vehicles, could be explored and implemented by the state's in a phased manner.

VII. SETTING UP OF THE BMLTA

The National Urban Transport Policy (NUTP) has recommended the setting up of Unified Urban Transport Authorities (UMTA) in million plus cities. Government of Karnataka has created Bangalore Metropolitan Land Transport Authority (BMLTA) in 2007 to act as an UMTA in the Bengaluru Metropolitan Region. In congruence to the NUTP 2006 and recommendations of National Working Group on Urban Transport for the 11th Plan, Directorate of Urban Land Transport (DULT) has been set up by the Government of Karnataka under the Urban Development Department with objective to coordinate planning and implementation of urban transport projects and programmes. It acts as Secretariat to BMLTA. The jurisdiction of DULT is State of Karnataka, in the urban transport sector.

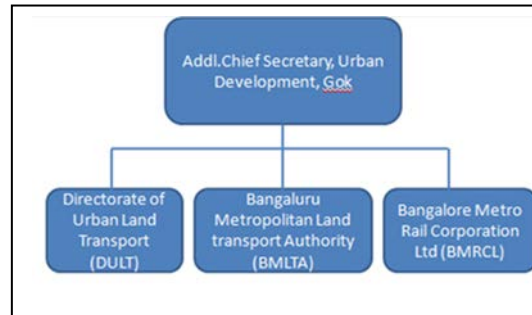


Fig.3.0 Organizational Structure of the BMLTA and DULT

The BMRLC which is created as Special Purpose Vehicle (SPV) between Government of Karnataka (GoK) and Government of India (GoI) for providing metro service in the BBMP region. All the Road Transport Corporations are under the ambit of Department of Transport, GoK, whereas the BMLTA, DULT and BMRLC come under the Urban Development Department, GoK.

VIII. SETTING UP OF STATE URBAN TRANSPORT FUND

The Ministry of Urban Development (MoUD), Government of India (GoI) has recommended the creation of dedicated State Urban Transport Funds (SUTF) at both the State and city levels to fund their respective urban transport initiatives. Government of Karnataka (GoK) accorded its approval for creation of an Urban Transport Fund at the State and city levels in 2010 with an initial corpus of Rs.60 Crores.

The Sources of the money into the SUTF would be from a) budget allocation b) 1% of Cess on motor vehicle tax and c) 2% of Cess on property tax.

IX. INTEGRATION OF THE LAND USE AND TRANSPORT

Though, the Master Plans are prepared by the Bangalore Development Authority and under BMRDA guidance for the six other local planning authorities within the BMR region. The Plans do not have a strong mandate to address Integration of transport requirements within the land use plans and provide mobility. A separate mobility Plan is prepared in addition to the earlier formulated Comprehensive Traffic and Transport Plan (CTTS, 2007) for Bangalore region. Attempt to address Transit oriented development is limited to providing a blanket Floor Area Ratio of maximum of 4.0 around the commissioned Metro stations.

X. FINANCING AND INVESTMENTS

The powers are exercised by State Governments for both KSRTC and BMTC to access various funding such as the recent JnNURM mission for capital expenditure. This has been utilized for creation of modern bus stations as well as procurement of the rolling stock. The City Police have been delegated to collect the fines and violations towards the use for the traffic regulation and management.

XI. BMLTA AND DULT'S INITIATIVES

A) Airport Linkage Proposals :

The BMLTA had been effective in meeting the needs of road access to the International Airport in 2007-08. This was achieved with co-ordination between the various stakeholders and due to the emphasis laid by the Government as the International Airport was being inaugurated. Beyond this initiative, the BMLTA has not

been able to put together a robust transportation concept or a system for providing access to the Airport. Action initiated by BBMP in developing a parallel road to the Airport has been stalled due to jurisdiction/ co-ordination between the Airport and BBMP. The High speed rail linkage and the extension of Metro have been taken up by the Infrastructure Development Department and BMRL respectively are at infancy in terms of project development and implementation. It is over 7 years since the BIAL has been operational and the only means of connectivity has been the road system.

B) Commuter Rail System:

There is a proposal for Commuter Rail System utilizing the existing rail infrastructure to address the transportation needs in the BMR and the city. The project is conceptualized with the Government of Karnataka funding up to 50 % of the cost. A Joint Venture on Special Purpose Vehicle (SPV) model is proposed to be set up for development of commuter rail system in BMR. The clearances from the Central government are awaited. DULT/BMLTA role in this project will be substantial as it involves the SPV, co-ordination, integration of various transport modes, Ticketing and addressing mobility requirements.

C) Parking and Pedestrian Policies:

The Parking and Pedestrian policies have been drawn up DULT/BMLTA and proposals are yet to be implemented through BBMP as well as other stakeholders. The main proposals pursued by the organization are focused on regulating parking by introducing a parking fee. It is observed across the country that devising the parking fee without adequate consideration of contextual issues including the Political buy in and citizen participation have not been successful. The policy and plan proposals that can be implemented with the help of community / citizen participation or to bring about reform as not been tested. The provision and maintenance of the Pedestrian infrastructure is mainly within the BBMP's purview. The roads leading to the metro stations enhancing the accessibility is still in planning stages.

D) Bus Rapid Transport System:

The case example of BRTS is noteworthy as the project was conceived in early 2000 and was proposed as a proposal in the CTPP 2007. The BRTS comprises of dedicated lanes for BMTC buses along with the signal free corridors and flyovers. The project has been under planning – prefeasibility stage without clarity as whether it would include the Outer Ring Road (ORR) and other corridors or restricted to a selected few. Though the funding was earmarked in the beginning, it was not continued in the subsequent years except that BDA was insisted to provide for the BRTS lanes in the 12 newly built flyovers/underpasses.

E) Implementation of Cycle Tracks and Cycling:

On a pilot basis, DULT/ BBMP implemented a cycle track in Jayanagar, southern part of Bangalore. The non contagious surfaces, frequent crossings on the main roads/ road intersections have led to poor use. Compounded with violations of parking of vehicles on the track has made the cycling track of redundant and unused. The will to develop a larger plan for cycling supported by all stakeholders has been missing. Attempts are made to implement the cycling tracks around lakes/ water bodies and this will best encourage recreational cycling. Ambitious proposals to enabling the shift to non-motorized Transport including cycling are yet to be attempted.

XII. KEY ISSUES

At the apex level, even though the BMLTA has been created, the institutional reform is yet to be taken place giving adequate emphasis on the role of BMLTA as Unified Metropolitan Transport Authority. The State Transport Undertaking (STU) is still under the transport department. The BMLTA has not been given necessary powers. Planning for transport and integration with the land use is to be mandated through plan formulation and use of techniques. There has been inadequate emphasis on the communication with the citizen's information sharing with the stakeholders and lack of citizen friendly initiatives. There is a need for strengthening the working relationship with BBMP/BDA and other stakeholders.

XIII. RECOMMENDATIONS

The BMLTA shall be empowered to act as authority that coordinates with all transport related organizations such as KSRTC, BMTC, BMRL, PWD, BDA, BBMP, with focus on implementation of transportation and traffic strategy. The functions to include the preparation of a detailed Master Plan for Transport Infrastructure as well as overseeing the implementation of all Land Transport projects. All forms of urban road transport bodies which are at present under the department of Transport should be brought under BMLTA and the Urban Development Department (UDD). BMLTA shall develop competencies to conduct public participatory exercises resulting in better planning and execution. According to the Kasturi Rangan Report, with the Metropolitan Planning Committee being constituted, the UMTA will be specialized arm under the umbrella of the Bangalore Metropolitan Planning Board of the MPC.

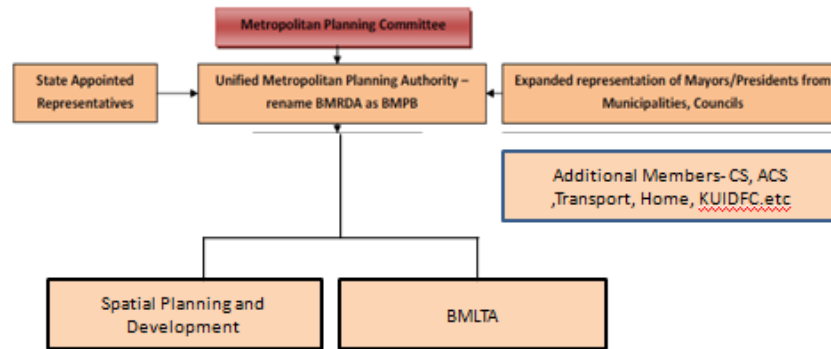


Fig.4 Metropolitan Planning Committee

Though the strategic functions are vital for the development of transport sector, it is necessary to develop competencies and technical capabilities to address ground level realities such as road cutting protocols, safer engineering practices, road standards, tree pruning and plantation, lighting, better signalization, etc.

XIV. CONCLUSION

The BMLTA shall be empowered to act as authority that coordinates with all transport related organizations such as KSRTC, BMTC, BMRCL, PWD, BDA, BBMP with focus on implementation of transportation and traffic strategy. The strengthening of Bangalore Metropolitan Land Transport Authority would address the multiplicity of transport problems effectively in the Bangalore Metropolitan Area.

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BIOGRAPHIES



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