

एम० रामाचन्द्रन  
M. RAMACHANDRAN



सत्यमेव जयते

सचिव, भारत सरकार

Secretary to the Government of India D.O. No. K-14011/07/2007-UT  
Dated: 22<sup>nd</sup> May, 2007

शहरी विकास मंत्रालय  
निर्माण भवन, नई दिल्ली-110011  
MINISTRY OF URBAN DEVELOPMENT  
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With the rapid urbanization coupled with economic growth, every city is experiencing corresponding increase in the travel demand. Due to lack of efficient, comfortable and reliable public transport, most of the cities are witnessing a rapid growth of personal vehicles, thereby highlighting the need for urgent attention to the issue of urban transportation.

This Ministry is receiving proposals for flyovers, road widening, Metros etc. under JNNURM/Viability Gap Funding budgetary support from Government of India. As already advised vide this Ministry's letter No. K-14012/101(38)/2006-NURM-I dated 05<sup>th</sup> March, 2007 (copy attached), all these proposals must be a part of the Comprehensive Mobility Plan which should be National Urban Transport Policy compliant. Furthermore while proposing any option, all other options should also be evaluated specially when high cost options are being proposed. As brought out in para 20 of NUTP, each of the technologies for public transport, namely, Electric Trolley buses, Trams/Light Rail Transit, Monorail and Metro, MAGLEV etc., Buses in mixed traffic, Bus Rapid Transit System, has its unique characteristics and is best suited to the specific situation. Relative characteristics of available public transport technologies are attached as Annexure-I.

This Ministry with the technical assistance from World Bank – DFID is in the process of formulation of guidelines for choosing a particular type of technology for a particular type of technology for a particular situation. However, till such time, these guidelines are developed, it would be desirable, that the terms of reference of the Consultants being engaged for development of Comprehensive Mobility Plan, should specifically include the cost benefit analysis of all other alternative options, keeping in mind the objective of overall sustainability and focus on moving people rather than moving vehicles.

I would once again urge your personal attention to addressing the issue of pressure on our roads due to the ever increasing vehicle population, particularly in the capital cities and other cities with large population so that urban transport options are considered and schemes for taking up solutions are put in position now itself.

With regards,

Yours sincerely,

Encl: as above

*Ramachandran*

(M.Ramachandran)

To

CHIEF SECRETARY  
ALL STATES/UTs

*Issued*  
*11/5/07*



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भारत सरकार  
 शहरी विकास मंत्रालय  
 निर्माण भवन  
 GOVERNMENT OF INDIA  
 MINISTRY OF URBAN DEVELOPMENT  
 NIRMAN BHAWAN

K-14012/101(38)/2006-NURM-I

नई दिल्ली- 110011, तारीख 200  
 Dated the 5<sup>th</sup> March, 2007  
 New Delhi- 110011, Dated the 200

Dear

As you are aware the JnNURM is now in full swing and many cities are coming up with projects in various sectors. A large number of projects of roads, RoBs, BRTS, etc. are being submitted by various ULBs and being considered sanctioned by the Central Sanctioning and Monitoring Committee (CSMC).

It has been the endeavor to see that the various road projects achieve their objective of a convenient and efficient transportation system in the cities. To this end, the National urban Transport Policy, 2006 (NUTP) has been formulated by this Ministry and the various projects in the urban transport sector are expected to be NUTP compliant. It is necessary that each city comes up with Comprehensive Mobility Plan (CMP). The CMP should be NUTP compliant. The CMP should indicate the existing situation as well as the future plan. The CMP should focus on mobility of people rather than vehicles and accordingly give priority to pedestrianisation, Non-Motorised Transport (NMT), Public Transport (All modes), Intermediate Public Transport (IPT). It should also integrate land use and transport planning.

After the CMP has been prepared and presented, whenever the ULB comes forward with the road projects, whatever be the nature, it should clearly demonstrate that the project in question forms a part of the CMP. Each road or flyover should cater for pedestrianisation and Non Motorised Vehicles (NMVs).

I would, therefore, request that the ULBs concerned prepare and present a CMP and while forwarding the DPRs in this sector indicate therein the relationship of the project in question to the CMP.

Yours sincerely,

(M Rajamani)

Secretary (UD) of all States & UTs/Municipal Commissioners of all Mission Cities

Towards

Mission Cities

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## Relative characteristics of available public transport technologies

Technology	Advantages	Disadvantages	Some cities where operating	Useful for
Heavy rail systems – underground, elevated or at grade	<p>Very high carrying capacity</p> <p>High speed</p> <p>Very low pollution in operations</p> <p>Needs very little urban space</p>	<p>Very high capital costs</p> <p>High per unit operating costs if capacity utilization is low</p> <p>Inflexible</p> <p>Long gestation period</p> <p>Needs extensive feeder network or very dense captive area</p> <p>Complex interconnectivity with feeder system</p> <p>Relatively complex technology requiring highly specialized manpower for O&amp;M</p>	<p>Singapore, Tokyo, Hongkong and several cities in Europe and North America</p>	<p>Very high density corridors, where road space is very limited.</p> <p>Well suited for densely populated cities that have low sprawl and few spinal, long haul corridors</p> <p>At grade systems are very good for sub-urban systems and the fringe areas of a city where space is more easily available</p>
Light rail systems	<p>Capital costs are less than for heavy rail systems</p> <p>Per unit operating costs are less than for heavy rail systems</p> <p>Low pollution levels</p> <p>Needs less urban space than bus based systems</p> <p>Needs limited urban space if elevated or underground (however capital costs go up)</p>	<p>Capital costs higher than for bus systems</p> <p>Inflexible</p> <p>Per unit operating costs higher than for bus systems if capacity utilization is low</p> <p>Needs substantial urban space if at grade</p> <p>Carrying capacity is lower than for heavy rail systems though comparable to high capacity bus systems</p> <p>Needs extensive feeder network or dense captive area</p> <p>Complex interconnectivity with feeder system</p> <p>Relatively complex technology requiring specialized skills for O&amp;M</p>	<p>Several cities in North America and Europe</p>	<p>Medium density corridors where space availability is adequate for supporting elevated structures or at grade tracks</p> <p>Medium density cities with limited sprawl</p>

Technology	Advantages	Disadvantages	Some cities where operating	Useful for
High capacity bus systems on dedicated lanes	<ul style="list-style-type: none"> <li>Capital costs lower than for rail based systems</li> <li>Low O&amp;M costs</li> <li>Higher capacity than normal bus services</li> <li>More flexible than rail based systems</li> <li>Needs less extensive feeder network than rail based systems</li> <li>Easy connectivity with feeder system</li> <li>Relatively simple technology with easy availability of manpower for O&amp;M</li> </ul>	<ul style="list-style-type: none"> <li>Capacity not as high as heavy rail systems though comparable to light rail systems</li> <li>More polluting than rail based systems</li> <li>Needs imported fuel</li> <li>Needs urban space for dedicated corridor</li> </ul>	Brazil, Colombia and several other cities in Latin America	<ul style="list-style-type: none"> <li>Medium density corridors where space availability is adequate for supporting the dedicated right of way</li> <li>Medium density cities with limited sprawl</li> </ul>
Sky bus	<ul style="list-style-type: none"> <li>System is non-polluting</li> <li>Needs limited urban space for supporting elevated structures</li> </ul>	<ul style="list-style-type: none"> <li>Not yet proven anywhere on commercial operations</li> <li>Inflexible</li> </ul>		<ul style="list-style-type: none"> <li>Medium density corridors where space is limited</li> <li>Promising for dense city centers</li> </ul>
Electric Trolley bus	<ul style="list-style-type: none"> <li>Advantages / disadvantages of normal bus system but with a higher capital cost, though non-polluting. Relatively inflexible and impacts city aesthetics due to overhead clutter.</li> </ul>		San Francisco	<ul style="list-style-type: none"> <li>All routes suitable for buses but where local pollution has to be low</li> </ul>
Normal buses on shared right of way	<ul style="list-style-type: none"> <li>Very low capital cost</li> <li>Low operating costs</li> <li>Highly flexible</li> <li>Do not need feeder systems</li> </ul>	<ul style="list-style-type: none"> <li>Very low capacity</li> <li>Polluting</li> <li>Low speeds</li> <li>Poor social image</li> </ul>	Most cities around the world	<ul style="list-style-type: none"> <li>Low density corridors where local pollution is not a critical issue</li> <li>Feeder to higher capacity systems</li> </ul>