Planning for Sustainable Urban Transport Systems in India - Strengths and Weaknesses

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Growth in Registered Motor Vehicles (million)
Growth of Vehicles to Population (1981-2011)
Motor vehicle growth in some cities (‘000)
Growth of Oil Consumption in India

Oil Consumption (MMT)

F.E. Outgo (in Rs Billion)


No. of fatalities in road accidents (in ‘000)
India’s Urban population projections

Actual vs Projected Population (Millions)

- Actual: 62.4 million in 1951 to 820 million in 2051
- Projected: 700 million in 2031 to 820 million in 2051
Hence an urgent need to remedy the situation
Strategies for parking space and freight traffic movements

Establish Regulatory mechanisms for a level playing field

Projects to demonstrate best practices in sustainable transport

Innovative financing methods to raise resources

Promote cleaner fuel & vehicle technologies for cities

Build capacity to plan for sustainable urban transport

Ensure coordinated planning for urban transport

Ensure integrated land use & transport planning

People focused & equitable allocation of road space

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National Urban Transport Policy
Key Concern

- Urban transport is a State subject
- Flyovers and road-widening are popular initiatives

- How does one get the States to think differently?
National Urban Renewal Mission

• Established a partnership for the national, provincial and local governments to finance the needed urban infrastructure

• National government commits Rs 50,000 crores ($10 billion) over a 7 year period

• Linked to prescribed reforms

• Cities could "dare to dream"

• A recognition that urbanization is "irreversible"
Thus:

National Urban Transport Policy

Established a Framework for action

National Urban Renewal Mission

Created an incentive for implementation

This effectively enabled a focus on public transport
Mass Transit Investments

**Metro Rail Systems**
- 11 cities
- Delhi, Mumbai, Bangalore and Gurgaon functional
- 7 under implementation

**BRT Systems**
- 16 cities – 7 functional, 9 ongoing, more in the pipeline

**Modern Bus Systems**
- 67 cities
  - Improved buses
  - Pass. Info System
  - Separation of planning from operations
Experience with Delhi Metro

- Extremely well executed and well operated
- Pride of the city
- However, congestion has not come down - got worse
- Relatively low ridership levels, yet crowded - seems more like a suburban system
- No densification/TOD
- Poor feeders and no integration with other systems

Needs more than a construction focus
The hub of the Delhi metro
Experience with BRT

- Very adverse public reaction when operations started in Delhi and Pune
- Adverse impact created doubts in other cities as well
- Ahmedabad BRT has since given confidence to others
- Construction focus - Softer side of BRT does not seem to have received adequate attention
Modern bus services

- Central Government grant for purchase of modern buses in 67 cities
- Institutional reforms directed:
  - Lead institution
  - Separation of planning from operations
  - Use of private sector for operations under formal contracts
- Huge capacity constraints in new cities
- Inadequate private operators
Experience

• Take what you can while it is there
• But many cities not prepared for this
• Informal operators have to be won over
• Inadequate corporate operators in the private sector
• Lead institutions (UMTA) set up in some cities, but more as a formality
• Existing STUs have taken the buses in several cities
• Yet, a few good example – Bhopal, Indore, etc.
Financing

• Investment of Rs 30 lakh crores ($600 Billion) needed in the next 20 years
• Implies a need for 1.5 Lakh crores ($30 Billion) each year for 20 years
• JNNURM allocated 50,000 crores ($10 Billion) over 7 years for all urban infrastructure
• Smart cities initiative has allocated approx one lakh crores ($ 20 Billion) over 5 years for all urban infrastructure

PUBLIC BUDGET CANNOT FULLY SUPPORT THIS
Needs smart planning and smart financing

• Build what is really needed
• Upgrade quality of public transport services
• Proper land use planning to reduce demand
• Proper pricing
• New revenue sources – land resources, etc
Major Weaknesses

- Institutional fragmentation – lack of holistic planning
- Integrated Land Use and Transport Planning not yet institutionalized
- Weak capacity for comprehensive urban transport planning
- Motorization does not show signs of abatement
- Dominance of 2-wheelers – very convenient vehicle
- No initiatives towards demand management – restraining personal motor vehicle use
- Poor social image of the bus and cycling
- High cost construction focused projects are attractive – no integration with other modes
- Emphasis on larger cities – opportunity to design smaller cities right being missed
- Emphasis on public funding continues
Way forward

• Set up “Lead” institutions that would coordinate all aspects of urban transport

• Sensitization to comprehensive and holistic planning – massive capacity building effort needed

• Focus on secondary cities

• Innovative financing

• Modernization of bus services
  o Focus on smart technology
  o Involvement of the private sector

• Focus on cleaner technologies

• Focus on demand management

It's an “Art” more than a “Science”

Thank you