Urban Transport: Looking Forward
Ajay Kumar

Lima
Bogota (Before)

Lagos
Dar es Salaam
Far-Reaching Impacts of Transport

- Transport effects almost every aspect of life in cities
  - Economic, land development
  - Environmental quality, local and global
  - Health
  - Social equity

- Addressing urban transport problems requires an understanding of a complex set of factors
Urban Transport Concerns

- Congestion
- Mobility and access
- Sustainability
  - Health (Safety, Air Quality)
  - Land Use
  - Energy
  - Climate change
  - Economic/social development
  - Existing system
Symptom: Traffic Congestion
Possible Cause of Congestion
Land Use

• Poor land use, site planning
  – Decentralization
  – Widely scattered, single-purpose developments
  – Site planning not pedestrian or public transport “friendly”
  – Site planning forces auto dependency
Changes in Land Use

- **Accra**—in the past decade, population doubled & city area tripled—reducing density from 14,000 to 8,000 persons per sq km

- **Abidjan**—city population has doubled every 7 yrs since 1945 upto early 90s

- **Dakar**—many new satellite towns are located >30km from city center

- **Lagos**—grown beyond State boundary into adjoining state of Ogun

- In all cities, two-third of the jobs are located in city center

- **RESULT**—commuting times have increased to over one hour each way (over 2 hours in some cities)
Possible Cause of Congestion

Demand Side Changes

- Explosive population, income and motorization growth
  - By 2025, >50% urban population
  - By 2025, >50% increase in motorized transport
  - Exponential growth in motorcycle

- Changing demographics
  - Declining household sizes (grown children moving to own residences)
  - Younger/older population

- Changing origin-to-destination patterns
  - More destinations outside City Center
Travel Over Time Accra, Ghana
Possible Cause of Congestion
Supply Side Changes

- **Non-Motorized Transport**
  - Declining space dedicated
  - Right-of-Way (ROW) encroachment

- **Public transport system**
  - On-street, poorly regulated competition
  - Route structure does not match travel needs
  - Insufficient capacity in major corridors

- **Roads**
  - Poor design/condition /connectivity
    - Average road density in SSA cities is 300m/1000 population
  - Ineffective parking /traffic management
  - Poor enforcement of traffic rules
Lessons from Past

- Multiple institutions involved with planning, regulation, licensing, resource allocation and enforcement
- Lack of coordinated land use-transport planning
- Inadequate environmental and social impact assessment
- Deterioration in coverage and quality of organized public transport services
  - Proliferation of unregulated private sector operators (minibuses/taxis/motor cycles)
Lessons from Past

- Importance of infrastructure
  - Poor quality roads & lack of capacity reduce productivity of urban transport fleets
  - Funding needs to be increased to reflect importance of urban transport in national system

- Existing regulation should be enforced
  - Control parking
  - Vehicle inspections
Lessons from Past

Monitoring system performance

- Basic statistics not collected and reported in an organized way
- As a result, difficult to monitor changes and develop solutions
Strategic Planning for Urban Transport: Why?

- Transport problems growing in magnitude and complexity
- Related to other strategic issues
- Transport too often implemented and operated in pieces defined by mode and geography; too little decision support information relating to entire metropolitan multi-modal system
- Focus on pre-conceived solutions, not an understanding of problems and issues
Starting Point? A Vision

- A vision of the metropolis in the future (20+ years) including transport and related sectors
- Projects may be outputs, not inputs, if not already committed

- “Vision: Two line, 40 km Metro, 5 km monorail and three ring roads by 2020”
Planning Process

All decisions are “political” irrespective of political system, but in developing countries, decision makers are often uninformed

- No objective, competent decision support information for investments
- Lack of transparency
Metropolitan Vision: What Should the Metropolitan Area Look Like in 20 Years?

- Vision covers transport and related quality of life issues
- Transport perspective goes beyond congestion considerations:
  - Safety
  - Mobility as well as Access
  - Environment
- Vision must be realistic and reasonably consistent with financial and other potential resources
Emerging Trend: Growth in Motorcycles
Declining local environment
# Factors influencing growth of motorcycles

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<td><strong>Demand</strong></td>
<td><strong>Supply</strong></td>
<td><strong>Congestion</strong></td>
<td><strong>Urban sprawl</strong></td>
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<td>Time savings</td>
<td>Easy availability</td>
<td>Pollution</td>
<td>Rising inc.</td>
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<td>Door-to-door service</td>
<td>Limited street space</td>
<td>Accidents</td>
<td>poor secondary road network</td>
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<td>Improve mobility</td>
<td>Multipurpose</td>
<td>Safety/crime</td>
<td>poor road quality</td>
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<td>Easy access</td>
<td>Transport freight and passenger</td>
<td>unregulated</td>
<td>Low density</td>
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<td>Demand responsive</td>
<td>Employment generation</td>
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<td>Uncontrolled growth</td>
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<td>Easy maneuverability</td>
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<td>Absence of safe, secure, affordable alternatives</td>
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The Way Forward

- **Infrastructure**
  - Increase funding for maintenance
  - Rehabilitate existing roads
  - Small-scale capacity expansion
  - Provide exclusive bus lanes (BRT “systems”)

- **Traffic Management**
  - Enforce existing regulations on parking, etc.
  - Junction design
  - Bus priorities; junctions & bus lanes
The Way Forward

- Develop capacity for public transport planning and regulation

- Staged introduction of route structure & allocation / licensing

- Route franchises can be allocated by agreement / negotiation with existing operators

- Develop integrated land use-transport planning framework and appropriate pricing strategies
Effective Strategic Metropolitan Transport Planning

- Comprehensive
- Continuous
- Cooperative
- Connected
- Championed
- Communicated
THANK YOU