PROPOSED CAIRO URBAN TRANSPORT STRATEGY & PRIORITY PROGRAM
Greater Cairo Development Project

Proposed Cairo Urban Transport Strategy
&
Priority Program

Ministry of Housing             World Bank
General Organization of Physical Planning
Governorates of Cairo, Giza and Qalyubiya
OUTLINE

- Basis for the Proposed Strategy
- Diagnosis: UT Issues, Future Implications
- Guiding Principles
- Building Blocks of the Proposed Strategy
- Short and Medium Term Priority Program
  - Institutional Strengthening
  - Development of Public Transport system
  - Traffic Management and Enforcement
  - Toll Roads Facilities
  - Sustainable Funding
- Possible World Bank support
Basis for the Strategy

**Context**: under the framework of Greater Cairo Master Plan with GOPP, Ministry of Housing:

- Review of existing studies:
  - Transportation Master Plan for the Greater Cairo Region *(JICA 2002)*
  - Cairo Urban Toll Road Study *(JICA 2002)*
  - Other studies (urban master plans, metro studies, taxis report, etc.)

- World Bank Missions: data collocation, field observations, and discussion with officials in Governorates, CTA, Transport Institute, Cairo University, GOPP
Diagnosis: Main Problems

- **Serious Traffic Congestion:**
  - Main corridors \( V/C > 1.2 \)
  - 80% of intersections in center Cairo and Giza are saturated
  - Long waiting/travel time (Sao Paolo)

- **High Accident Rate** (especially pedestrians): more than 1000 deaths and 4000 injuries/year (Teheran)

- **Underdeveloped Public Transport System:**
  - Minibuses and shared taxis: 56% of PT share
  - Only 4km of metro/1 M people (Bangkok=20, Sao Paolo= 31, Paris=150)
  - Severe shortage of high capacity bus supply: 300/1 M (Bangkok=1737, Sao Paolo=1020, Paris=1800)

- **Air & Noise Pollution**
Ex: Congestion out of Rush Hours
التكدس المروري
Main Contributing Factors

- Rapid growth of Urbanization (+2.5%/year) and
- Fast increase in car ownership (+5%/year 94-04)
- Combined with slow investment response
- Institutional Weakness (fragmented= 14, ill-equipped in skills, poor information system, poor regulations and modal coordination)

- Unsustainable Financing Arrangements:
  - very low fares (most affordable) = \( \text{revenue/cost= M30 - B43\%} \); PT subsidies = US$130 M/year
  - High fuel subsidies: estimate for GC = US$1.5 bil in 05

- Insufficient Emphasis on Implementing the Most Cost Efficient Measures (TM/DM, Bus facilities, Heliopolis, BRT)
Over the next 20 years (2001-2022):

- The combination of population Growth (at 1.7%/year) and Economic Growth (at 2.9%/year):
  - Greater Cairo will host 20.7 million people (14.4 million in 2001)
  - Vehicle Ownership will grow at 4.2%/year and more than double to 2.5 million cars (from 1.05 in 2001)
  - And motorized trips will grow from 14.4 to 25.1 million trips per day

The current UT system will never be able to accommodate such level of traffic demand unless Drastic actions are taken NOW.
What will happen if the current policies and level of investments are maintained?

- **Speed in km/h**
  - Year 2001: 21.4 km/h
  - Year 2022: 11.6 km/h

- **Pollution**
  - Year 2001: 12.2 millions tons
  - Year 2022: 16 millions tons

- **Eco Losses**
  - Year 2001: 3 Billions EL
  - Year 2022: 7.5 Billions EL
Guiding Principles Towards a Strategy

- **Institutions and Funding**: Giving priority to developing urban transport institutions & improving urban transport finance are prerequisites for sustainable improvements of urban transport services.

- **Public transport system**: should receive highest priority to accommodate large growing travel demand in metropolitan Cairo (cost effective, equitable and cleaner).

- **Effective use of existing assets**: making efficient use of exiting infrastructure (public transport, existing road space, etc.) are the best use of public resources.
OBJECTIVE: Efficient, Environmental Friendly and Affordable Urban Transport Services in GCR

Efficient Urban Transport Institutions
• Planning / Policy Formulation
• Priority Investments
• Monitoring and Information Systems
• Regulations and PPP framework

Sustainable Urban Transport Funding
• Pricing Policy of UT services
• Streamlined Subsidies
• Other Financing sources

Efficient Public Transport System
• Road-based high capacity mass transit systems
• Restructured bus network (formalize the informal)
• Efficient Operators (contracting out and PPPs)

Improved Traffic Management Practices
• Traffic/Parking inst. Capacity
• Traffic Management Plans
• Parking Strategies/Policies
• Implementation/Monitoring
• Enforcement of Traffic Rules
• Priority Toll corridors
Proposed Elements of the Strategy

- Developing Capable & Stronger Urban Transportation Institutions
- Establishing a More Efficient Decision Making Process for Selecting Priority Investments
- Establishing a Sustainable Urban Transport Financing: More Reliance on User Charges (and less subsidies)
- Establishing More Efficient Organization and Operation of Public Transport Services
- Implementing a Modern Traffic Management Program
- Applying Demand Management Measures (paid parking & road tolls)
- Enhancing Institutional Arrangements for Stricter Enforcement of Traffic Rules
Proposed Short / Medium Term Program

- Institutional Development and UT financing
- Restructuring Bus Transport Services (routes, supply, and contracting operations)
- Developing high capacity bus system (on dedicated bus priority Facilities)
- Upgrading & Extension of Heliopolis Metro
- Expanding and Improving Traffic Management
- Expanding On and Off Street Paid Parking Programs
- Improving Traffic Enforcement
- Developing and Implementing Toll Road Facilities through PPP arrangements
Institutional Development
(*highest priority*)

- Establish a High Level Metropolitan Cairo Transport Steering Committee (MCTSC)
- Create a Metropolitan Cairo Transport Authority (MCTA): *ex:* Montréal, Paris, Vancouver, London,
- Undertake Reforms in the Cairo Transport Authority:
  - Separate Operations from Regulation; Contracting bus routes to private/public operators (*ex:* Chili)
  - Strengthen/Create Traffic Management (TMD) and Parking Departments (PMD) at the Governorate Level (*all mega cities*)
  - Create an Expressway Authority to manage Toll Roads in GC
- Assist Traffic Police in Mobile Enforcement
Proposed Metropolitan Cairo Transportation Organization

Main roles:
- Decision-making on urban transport plans, policies and priority investments
- Coordination of institutional interventions and roles
- Urban transport financing policies

Higher Level Transport Steering Committee (HLSC)

Metropolitan Cairo Transport Authority (MCTA)

Main roles:
- Prepares comprehensive metropolitan transport plans and capital budgets
- Regulates and contracts with public and private sector public transport
- Manages urban transportation information system and carries out specific policy studies

Composition:
- Ministries: Finance, Housing, Transport and Local Development
- Governorates: Cairo, Giza, Qalibiya
- Other Institutions

Ministry of Transport

Expressway Authority

Private Expressway Concessionaires

Public Bus Operators

Private Bus and Mini-Bus Operators

Public or Private Tram/Operators

Metro or Commuter Rail Operators

Private or Public Tram Operators
Proposed Governorate Level Transport Organization

Governorates (Cairo, Giza and Qalyoubiya)

Parking Department
- Prepares parking management plans (off & on-street supply, pricing, etc.)
- Administers parking management contracts to private sector
- Coordinates enforcement with traffic police

Traffic Management Department
- Prepares traffic management plans
- Operates & maintains all traffic control devices
- Prepares on and off-street parking policies

Traffic Police
- Enforces traffic regulations
- Enforces parking regulations
- Manages traffic incidences

Ministry of the Interior

Other Governorate Departments

(Participation in policy-making)

(Coordination)
Restructuring and Developing Bus Transport Services

The Objective is to develop an efficient, well organized, and affordable high capacity bus services in GC:

- Bus network restructuring and supply definition
- Improving concession arrangements, and regulatory practices
- Gradual “formalization” of informal private sector bus operations into well structured (private) bus operators providing high capacity bus services (Chili, Mexico, Moro)
- Promoting road-based high capacity mass transit systems (BRT, fully dedicated bus lanes, etc. less expensive than metro and trams) in high travel demand corridors (to be concessioned to PS) to move more people than is possible with cars
Examples: Promoting road-based high capacity mass transit systems

- Large avenues for BRT
  ![Bogota](image)

- Railways existing infrastructure
  ![Heliopolis tram track in Cairo](image)

- Existing Public Transport network
Upgrading Heliopolis Metro

Objective: maximize the use of an exiting mass transit system that could move more people and produce substantial benefits at much less cost than other rail investments

- Staged upgrading and extension at a reasonable cost
- Most likely with PPP arrangement:
  - Public sector investments in infrastructure (tracks, stations, signaling, etc.)
  - Private sector investment in rolling stock and operations under a concession agreement
- Possibility of merging operations with the underground metro system (modes integration, cost effectiveness) (ex: Vancouver, New York, Tunis, Paris)
Improving Traffic Management practices and policies

Objective: make best possible use of existing road space (improve vehicle throughput and safety) at reasonable cost

- Comprehensive traffic management plans (improvements) in selected areas and corridors (see examples)
- Traffic signal upgrading especially in central business districts of Cairo and Giza
- Improvements to specific intersections and squares with high traffic bottlenecks (ex: Errimaya, Sphinx)
Central Giza and Cairo CBD as Focus Areas for Traffic Management Plans:

Source: JICA Study Team 2002
Expanding On & Off Street Parking Programs

Objective: optimal use of urban space and supply of parking space where it is most needed while using pricing as a means of travel demand management

- Develop and implement Parking management plans in Target locations in central Cairo and Giza:
  - Paid Parking as a means of travel demand management, better use of road capacity, and revenue generation (*estimated revenue: 10-15 millions US$/year*) (ex: CBDs in all mega cities)
  - Considerable potential for private sector participation (in on and off street facilities)
  - Possible paid area access in Cairo/Guiza (ex: London, Hong Kong)
Improving Traffic Enforcement

Primary objective of improved traffic enforcement is to improve traffic safety, traffic incidence management, and alleviate congestion

Shifting traffic enforcement from point duty to mobile enforcement (and devolving traffic management from police to TM departments at the governorate level):

- Emphasis on traffic safety, traffic incidence management, and enforcement
- Strengthen police capabilities (training, equipments, vehicles.) to ensure effective enforcement and maximize the impact of traffic and parking management plans
Implementing Toll Road Facilities

Objective: providing an alternative to congested roads through higher road capacity and speed at appropriately priced facilities

Development and implementation of a pilot for 1 or 2 corridors (ex: El Mahouer: down town to 6th of October):

- Feasibility study and selection of 1 or 2 priority corridors with possible insertion of high volume bus transport system
- Transaction structure (regulatory framework, pricing policy, PPP arrangements)
- Tendering and selection of private partner/operator
- Implementation/monitoring and evaluation
Sustainable Funding of Urban Transport Sector

Objective: increase users contribution and reduce subsidies so that equivalent funds can be spent on improving transport conditions

- Developing Public transport fares and subsidy policies which minimize the fiscal burden and enable funding of UT priorities (if PT improved):
  - PT fares can be doubled over 5 years (US$ 67 M/year)
  - PT remain affordable in GC (about 9% of income of low groups)

- Gradual reduction of fuel subsidies
  - 30% reduction in subsidies over 3 years will save US$ 500 M/year

- Exploring other sources of funding and cost reduction measures of public transport systems:
  - Dedicated (Gas/Registration) UT tax: Montréal, Vancouver, Paris, New York
How the World Bank Can Help

- Assisting in creating & strengthening urban transport institutions
- Technical and Financial support to implementing priority investments to address traffic congestion & improve public transport systems
- Other assistance as per the GOE request
- Examples of WB UT projects: Istamboul, Snatiago, Moscow, Petersburg, Mumbai, Buenos Aires, Tunis.
THANK YOU