

# "Sustainable Transport Project for Egypt"

Prepared by Eng. Mohamed Fathy, Project Manager



**United Nations Development Programme** 



**Global Environment Facility** 



**Egyptian Environmental Affairs Agency** 

# **Background**

- ✓ Greater Cairo is one of the world's mega-cities with population > 17 million, where demand for mobility has greatly outpaced the capacity of the public transportation system to cope.
- ✓ The gap has been primarily filled with private owned and operated shared taxis (informal transport) and the use of private cars.
- Freight transport system in Egypt is dominated by road transport with a share of 94%, while opportunities for more energy efficient rail and inland waterway transport are underutilized.
- ✓ Transport sector is responsible for about 28 % of the final energy consumption in Egypt, & 25 % of energy related CO2 emissions, and is the fastest growing source of CO2 emissions in the country.
- ✓ The total amount of GHG emissions from the transport sector in Egypt is estimated at 29 million tons of CO2.

# Project Objective

Implement pilot projects leading to numerous replications aiming to:

- ✓ reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt.
- ✓ mitigate the local environmental and other problems of the increasing traffic such as deteriorated urban air quality and congestion.

## **Project Information**

**Start Date: January 2009** 

**Duration: Five Years 2009: 2013** 

**Budget:** 44 million US \$ = 7 million US \$ funded by GEF/UNDP + 37 million US \$ local contribution by the Egyptian Government & Private Sector.

Implementing Partner: Egyptian Environmental Affairs Agency / Ministry of State for Environmental Affairs.

**Technical Support:** Transportation Programme, Development Research & Technological Planning Center, Cairo University.

Main Stakeholders: Ministry of Transport, Ministry of Housing and New Urban Communities, Ministry of Interior, Cairo, Guiza, Fayoum, Monofia, 6 October & Helwan Governorates and Private sector.

# **Project Components**

#### Component (1)

Promoting modal shift from private cars to sustainable integrated public transport for Greater Cairo & its satellite cities (Public Private Partnerships).

#### (a) First pilot services in satellite cities

- ✓ 3 new high quality bus services connecting Sheikh-zayed City, 6 October City, & Media Production City with Greater Cairo metro lines # 1 and #2 with integrated ticket.
- ✓ Improved internal, new high-class public bus services in 6 October City.

#### **Replication:**

Connecting additional 5 satellite cities around Cairo (10 Ramadan, New Cairo, Badr, Oboor & Shorook) with Cairo metro lines.

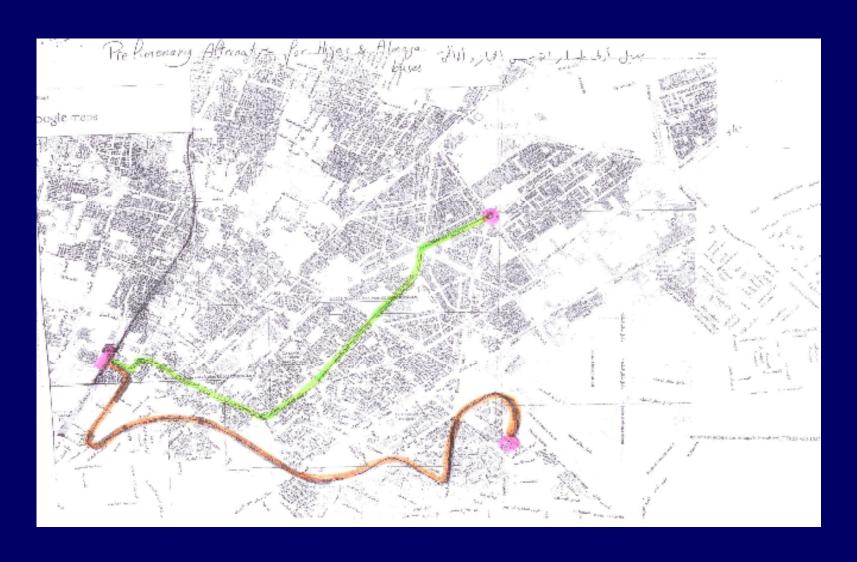
#### (b) First pilot services in Cairo:

Feeder bus system connecting Almaza & El Hegaz areas with Saraya El Koba station, Maadi & New Maadi areas with Maadi station on metro line 1 with integrated ticketing.

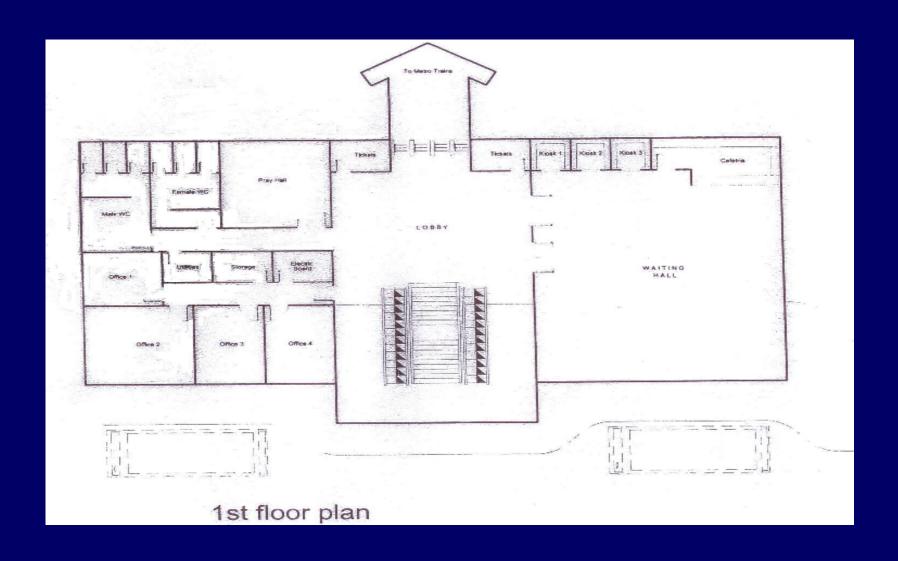
#### Replication:

7 stations of metro lines # 1 & 2 in Cairo - 5 stations of metro line # 3 in Cairo - railway connecting Alexandria with Borg-El-Arab and Abo-Qeer satellite cities .

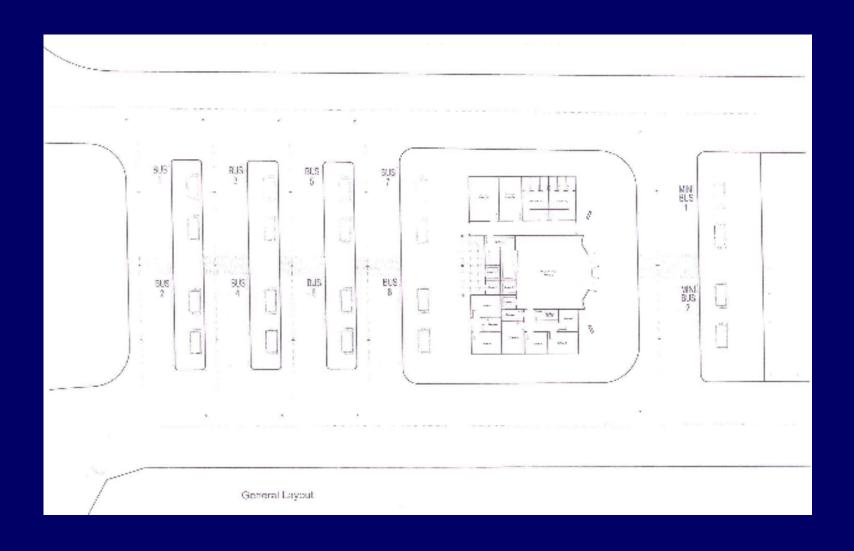
# Feeder Bus Route Serving Saraya El Koba metro station and connecting El Hegaz & Almaza Areas



### **Preliminary Design for Saraya El Koba Metro Station**



## **Preliminary Design for El Hegaz Bus / Minibus Stop**



#### Component (2)

Promoting modal share of non-motorized Transport (NMT) in medium size cities.

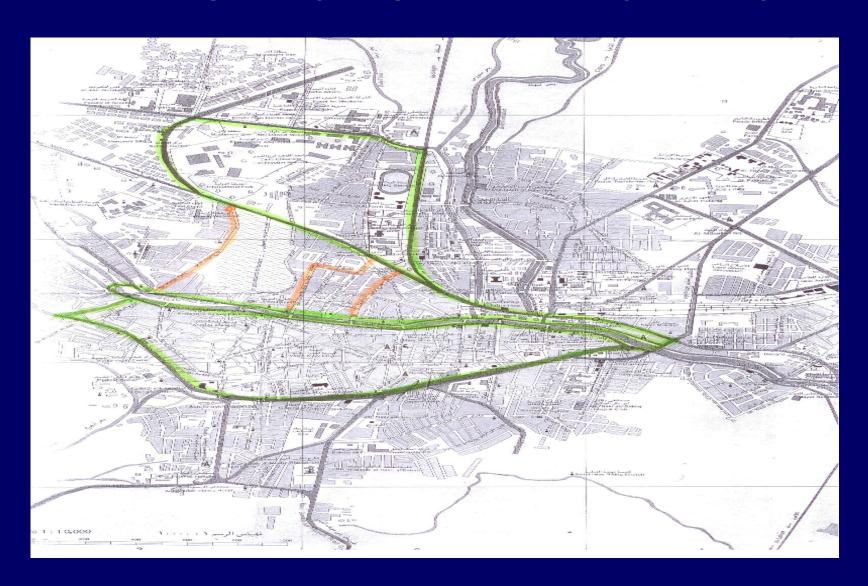
#### First pilot:

- ✓ Construct new networks with improved facilities for walking and cycling in Fayoum & Shebin El-Kom Cities with total length of about 13,6 km & 6,5 km respectively.
- ✓ Conduct promotional campaigns to raise the social acceptance of cycling, and to lower the barriers to bicycle purchase & use.
- Support and promote local bicycle manufacturing, selling and repair (bicycle industry).
- ✓ Develop overall transport policy framework in terms of encouraging and supporting the NMT in Egyptian communities, when physically feasible.

#### Replication:

in 27 medium size cities.

# Walking and cycling network in Fayoum City



#### Component (3)

Introduce new Transport Demand Management (TDM) measures with an objective to expand it towards more aggressive measures overtime to effectively discourage use of private cars when good quality public transport services are available.

#### First pilot:

- **✓** Promote & design of TDM measures.
- ✓ Introduce a public transportation priority system for bus & Masr Elgedida tram at traffic signals in Mostafa El Nahas corridor.
- Establish new micro-pedestrian area close to Mostafa El Nahas corridor.
- Support development & implementation of parking polices which introduce higher and / or staggered parking charges for the city center (CBD), to discourage private cars to enter the CBD, meanwhile improve service provided by garages outside the CBD with Variable Message Parking Signs (VMS), and free shuttle service to CBD and/or metro stations.

#### Replication:

Pedestrianization of 10-15 micro-zones in Cairo, Giza and Alexandria Cities.

# Component (4) Improving energy efficiency of Freight Transport

#### **Activities:**

- ✓ Update the situation analysis and develop national policy recommendations and measures for improving the energy efficiency of urban freight transport in Egypt.
- ✓ Build the local capacity for integrating urban land use and transport planning in the area of sustainable freight transport.
- ✓ Support EEAA efforts and initiatives for constructing integrated stations for environmental and technical inspection of vehicles in cooperation with Mol.
- ✓ Raise awareness and build capacity of the truck operators and the freight terminals management on opportunities provided by the new IT.
- ✓ Support MoT and private investors in the establishment of new intermodal terminal facilities in Greater Cairo, and adoption of Electronic Data Interchange, thereby promoting a modal shift from road to more energy efficient rail and river based transport options.

#### Component (5)

Enhancing the awareness & capacity, and strengthening the institutional basis to promote sustainable transport.

#### **Activities:**

- ✓ Prepare a national cross sectoral Policy Document on "Sustainable Transport".
- ✓ Building Capacity for MOT to develop and implement sustainable transport policies and actions in the field of freight transport.
- Raise awareness & build capacity of the key professionals in institutions dealing with urban planning and development on sustainable transport aspects.
- ✓ Conduct a study to determine emission factor for small vehicles (private & taxis) fuelled with gasoline or CNG in Greater Cairo.
- ✓ Support establishment of "Greater Cairo Metropolitan Transport Bureau" for co-ordinating effectively development of public transport systems.
- ✓ Support establishment of semi public "Greater Cairo Parking Authority" for implementing and enforcing parking policies conducive to sustainable transport development principles.

# **Expected Savings in Fuel Consumption and Reduction of CO2 Emissions**

Project Component	CO2 Emission reduction (Ton / 20 Years)		Saving of fuel consumption (Ton / 20 Years)		Saving of fuel consumption (LE / 20 Years)	
	Pilot Projects	Replication of Pilot Projects	Pilot Projects	Replication of Pilot Projects	Pilot Projects	Replication of Pilot Projects
1	290,000	600,000	93,000	193,000	279 million	579 million
2	262,000	4-5 million	84,000	1.451 million	252 million	4353 million
3	81,000	> 18 million	26,000	5.806 million	78 million	17418 million
4	850,000	> 5 million	307,000	1.612 million	755 million	4836 million
Total million	1.483	<b>&gt; 28</b>	0.51	9.62	1364	27186

# Thank You For Your Attention