

**UN HABITAT**  
FOR A BETTER URBAN FUTURE



**UN** environment  
United Nations  
Environment Programme

# SUSTAINABLE URBAN MOBILITY IN EGYPT

*Avoid,  
Shift,  
Improve.*

Egyptian Cities Come Into Focus



**Prepared by**

This document was prepared by UN Habitat, UN Environment and CEDARE, originally prepared for showcasing of activities in Egypt in COP27.



# CONTENTS

## CONTEXT

- 01 NATIONAL PARALLELS
- 03 ASI FRAMEWORK

## 01 AVOID

- 05 NEW URBAN AGENDA
- 07 COMPACT & MIXED USE DEVELOPMENT
- 09 SUSTAINABLE URBAN MOBILITY PLAN

## 02 SHIFT

- 11 SEKETAK KHADRA
- 13 CAIRO BIKE
- 19 BRT: BUS RAPID TRANSIT SYSTEM DEVELOPMENT
- 23 GENDER MAINSTREAMING STUDY

## 03 IMPROVE

- 25 FUEL ECONOMY
- 27 LOW EMISSION ZONES
- 29 IMPROVING THE WALKING EXPERIENCE

## SUSTAINABLE MOBILITY IN EGYPT

# NATIONAL PARALLELS



As all eyes turn to Egypt as it hosts global climate negotiations and urban fora throughout the 27th Conference of Parties (COP27), **Egyptian cities once more come into focus as the world gathers to discuss pressing issues of today, on its ground, where it all begins.**

City-level action for sustainable mobility has been highlighted in COP27 as one of the key areas of intervention that the world must attend to. In Egypt, as with many countries of the global south, the largest contributor to air pollution in urban areas is transport. In recognition of the role of people's mobility in cities and combatting accelerated car-dependence in the battle against climate change, a review of best practices and success stories are offered here in the context of activities made possible through collaborations among development partners in Egypt. This may offer a glimpse into another inspiring story in the long history of Egypt and its civilization. This publication showcases the possibilities for many countries around the world with similar contexts and challenges, while nevertheless recognizing the long journey of learning that still remains, and the opportunities for further transformations and paradigm shifts needed, reminding us of the yet untapped potential.

Urban areas, or the city, is at the core of climate action over the next decades, and is the battleground where 70% of global emissions are observed and about a quarter of that comes from transportation. For proper action to be ensured, the political will and a solid ground for urban development policies, plans, and programs is key.

In a solid step towards improved urban development, Egypt launched, and is implementing, the National Strategic Plan for Urban Development 2025, which aims at ensuring, balanced spatial development, and both regional and local urban development. Here, alignment with global best practice is ensured, such as alignment with the New Urban Agenda (NUA),

as well as development of the new National Urban Policy (NUP) as the guiding policy framework for policy development, and subsequent strategies dedicated specifically to climate change. These frameworks call for collective action and effective sharing of successful solutions and experiences, with special focus on vulnerable groups and ensuring all stakeholders are contributing to and equally benefitting from sustainable urbanization.

The acceleration of the implementation of the New Urban Agenda (NUA) is being ensured in Egypt through the integration of its principles in Egypt's National Strategy for Climate Change 2050 (NSCC2050), launched in May 2022, and Egypt's rise to a leading position in 2022, hosting the 27th Conference of Parties (COP27) of the UN Framework Agreement for Climate Change (UNFCCC).

Today, Egypt asserts its high commitment to climate action more than ever, with focus on cities and multilevel climate action. Hosting COP27 as well as the 12th World Urban Forum (WUF12) is testimony of this unprecedented political will to "walk the talk" and put the spotlight on implementation and tangible outcomes enabled with the required policies and regulatory frameworks, just finance, and enabling institutional setups, as well as boldly launching two global initiatives addressing sustainable mobility: The Sustainable Urban Resilience for the Next Generation (SURGe) and the Low Carbon Transport for Urban Sustainability (LOTUS).

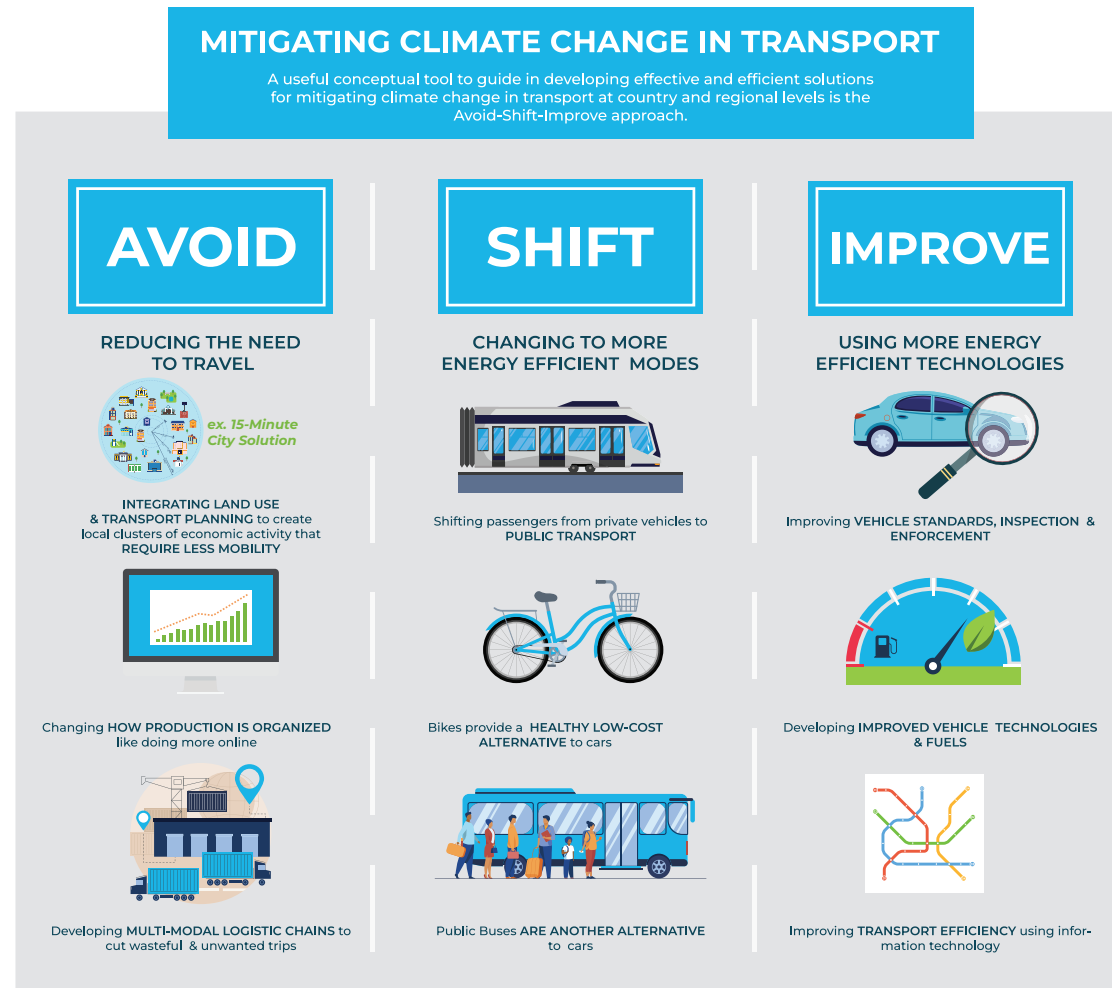
**Amidst such calls for global action, a demonstration of parallel local action, so-called *national parallels* to these global initiatives, becomes imperative. This is central to the activity of UNHABITAT together with the government of Egypt. This publication presents a deep-dive into one of the areas of support: Sustainable mobility and progress in Egypt and presents the frameworks within which UNHABITAT and its partners work.**



# What is the Avoid-Shift-Improve Framework?

Many people are familiar with imperatives of resource conservation and sustainable consumption; the “3Rs” framework of “Reduce Reuse Recycle”, which for long has been popularized and mainstreamed in culture and education. Similarly so, in the realm of sustainable mobility, a practical A-S-I framework, Avoid-Shift-Improve has for long also been a practical reference to map out the holistic set of interventions needed to achieve sustainable mobility.

*A-S-I refers to Avoiding kilometers traveled at the outset, followed by Shifting towards more sustainable modes of transport, and finally Improving the existing choices, fuels, technologies, and systems.*



# AVOID

**AVOIDING KILOMETERS  
TRAVELED AT THE OUTSET.**

# 01

# NEW URBAN AGENDA

*The New Urban Agenda was adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador, on 20 October 2016. Within its guiding text, it advocates urban planning that enables city-dwellers to reduce their dependence on cars, such as through compact development and ensure mixed-use planning.*



The New Urban Agenda Cover Page

## PRINCIPLES

*“The New Urban Agenda represents a shared vision for a better and more sustainable future – one in which all people have equal rights and access to the benefits and opportunities that cities can offer, and in which the international community reconsiders the urban systems and physical form of our urban spaces to achieve this.”*

*UN, New Urban Agenda, 2017*

The New Urban Agenda adopts the following Principles to achieve its vision:

- a) Leave no one behind, by ending poverty in all its forms and dimensions.
- b) Ensure sustainable and inclusive urban economies by leveraging the agglomeration benefits of well-planned urbanization.
- c) Ensure environmental sustainability by promoting clean energy and sustainable use of land and resources in urban development.



# COMPACT & MIXED USE DEVELOPMENT

## What is a 15-Minute City?

A 15-minute city aims to provide everything you need within a short 15-minute walk or bike: jobs, schools, food, parks, community, medical and more. It aims to create more sustainable, equitable and healthier cities.

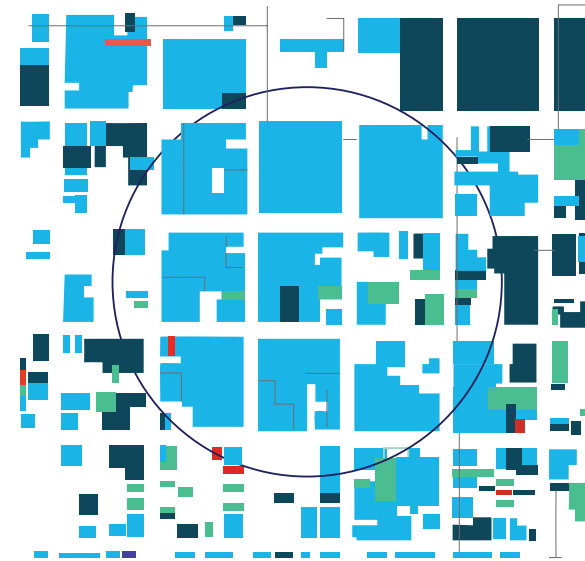


A 15-Minute City

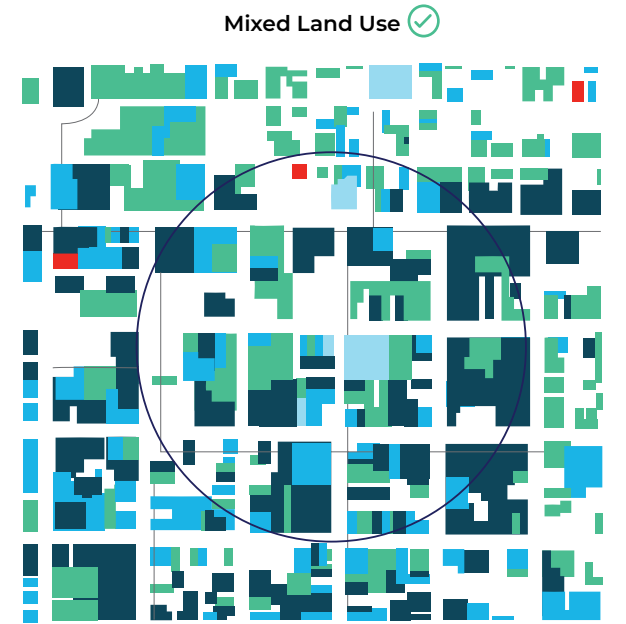


Not a 15-Minute City

# COMPACT & MIXED LAND USE



District planned with limited and segregated land uses; dependence on cars is likely.



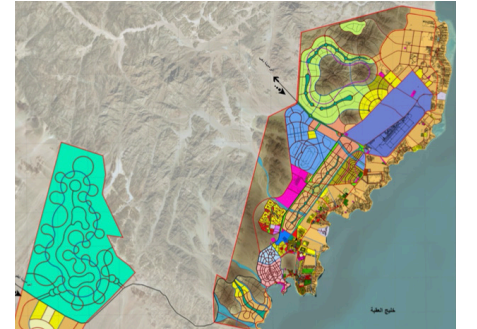
District consisting of a variety of land uses



# SHARM EL-SHEIKH SUSTAINABLE MOBILITY PLAN

*An initiative by:*  
(UN Habitat, ITDP, General Organization for Physical Planning, South Sinai Government)

Sharm El Sheikh is an important secondary city in Egypt that is considered a distinctive global waterfront and leisure tourism destination due to its location and the unique marine life. It is also a notable conference venue. Based on decrees taken by the Prime Minister's office regarding investment projects for the Sinai Governorate, the decision was taken to create a comprehensive strategic urban plan for Sharm El Sheikh in line with the Sustainable Development Goals (SDGs). The plan is aligned with the New Urban Agenda and integrated with the planned regional and international projects that could affect the city.





# SHIFT

SHIFTING TOWARDS MORE  
SUSTAINABLE MODES OF  
TRANSPORT.

# 02

# SEKATAK KHADRA

An initiative by:  
(Cairo Gov, Nahdet El Mahrousa  
NGO, Danish Embassy, UN Habitat)



Installing 100 bike racks  
around Cairo to assist  
cyclists & add playfulness  
in the city.



Seketak Khadra bike installations in  
Downtown Cairo



Map for Seketak Khadra Installations  
in Downtown area



UN HABITAT

# LAUNCHED EGYPT'S FIRST PUBLIC BIKE-SHARING SYSTEM "CAIRO BIKE"

OCTOBER, 2022

Cairo Bike project is the product of a longstanding partnership between Cairo Governorate and development partners working together since 2016, where the MOU was signed in July 2017 between Cairo Governorate and the UN-Habitat, with support and project funding provided by Drosos Foundation, and technical assistance and supervision by the Institute for Transportation and Development Policy (ITDP) and the United Nations Human Settlements Programme (UNHABITAT).

The initiative aims to be a signature project added to the mix of solutions to diversify transport options in Cairo. This comes along with a locally-tailored application as well as alternative simple payment options that may cater to various segments of society, and it involves an innovative docking solution and a display for the network map.





# CAIRO BIKE OPENING

October 2022



Rania Hedaya, Country Program Director at UNHABITAT Egypt taking H.E. Prime Minister Dr. Mostafa Madbouly through the Cairo Bike Project Launch, Tahir Square, Cairo, Egypt







H.E. Prime Minister Dr. Mostafa Madbouly Cutting the Ribbon in Tahir Square, Cairo, Egypt



The concept of bike-sharing, which primarily targets youth, is to provide a network of publicly available bicycles that can be safely used between stations using an app and with competitive pricing and various subscription packages. **This is rolled out in an initial phase consisting of 250 bikes and 25 stations in downtown Cairo and the nearby areas, while the second phase in the coming months will involve a further expansion to reach a fleet of 500 bikes in 45 stations at key locations in Downtown area, Garden City, and Zamalek Island in Cairo.** Bikes include GPS-tracking for optimal management and security. It is covering strategic locations, youth hotspots, several metro stations and bus stops. The price in the promotional period starts with 1 EGP per hour, with a variety of price packages and modes of payments that allow inclusiveness of all stakeholders.



# BRT: BUS RAPID TRANSIT SYSTEM DEVELOPMENT

UNHABITAT is working on solutions to enable the “Shift” needed in modes of transport. Together with the New Urban Communities Authority (NUCA) and the Institute of Transport Development Policy (ITDP), various projects are in progress and being gradually linked to each other.

## Two key activities are noted:

1. 6th of October Bus Rapid Transport (BRT) project connecting to Greater Cairo planning and support in implementation.
2. Non-Motorized Transport (NMT) strategy development, gender mainstreaming, and integration of informal transport.

## Overall Goal

The aim is to provide diverse sustainable transport options for all stakeholder groups that are not only safe and functional, but also 'enjoyable'.



Render and Visualization of the station



Renders by ITDP

Render of vision & plan for Industrial road, October Sector





Renders by ITDP

Render of vision & plan for Industrial road, October Sector



Renders & visualization from Outside the station & Station entrance



# GENDER MAINSTREAMING STUDY

**A study by:**  
(UN Habitat, ITDP, UN Women, NCW)

Meshwary is a study undertaken by UN Habitat and UN Women, in partnership with the National Council for Women (NCW), the New Urban Communities Authority (NUCA), and the technical assistance of the Institute for Transportation and Development Policy (ITDP) with the support of USAID. It aims to develop a better understanding and evidence-base on the challenges women face while using public transport.

**Data collection methodology included the following:**

Public transport terminal survey, focus group discussions, online travel pattern survey, operator assessments. Frequency-occupancy survey and non-motorized transport (NMT) facility survey.



Photo Copyright: Alaa ElKamhawi



# IMPROVE

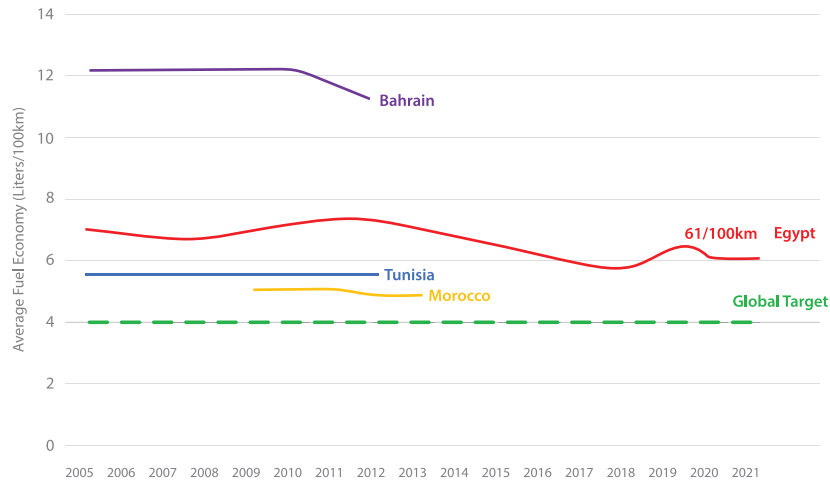
IMPROVING THE EXISTING  
CHOICES, FUELS, TECHNOLOGIES,  
AND SYSTEMS.

03

# FUEL ECONOMY

After we fulfill the ASI commitments, the next step is moving all the practices to improve these mobility options.

Ex. Improving fuel economy & promoting electric vehicles.



Trend of annual average fuel economy of new cars in Egypt and other countries in the North Africa & Middle East Region



# FUEL ECONOMY LABELS

Thirteen VED Bands

The figures on the coloured arrows (A-M) indicate the 13 ranges of emission by g/km that correspond to level of annual Vehicle Excise Duty (VED or Road Tax). Low carbon-emitting cars pay less tax. The lowest - Bands A - pay no tax.

Make, model and engine details

The vehicle make, model, fuel type, engine capacity and transmission type are all listed. Together they determine the CO2 emission and running costs.

Fuel Economy		Supermini Special
CO <sub>2</sub> emission figure (g/km)		
<100 A	101-120 B	117 g/km
121-150 C	151-165 D	
166-185 E	186+ F	
Fuel cost (estimated) for 12,000 miles		
VED for 12 months		£662
Environmental Information		£85
Make/Model: Supermini Special		Engine Capacity (cc): 1399
Fuel type: Diesel		Transmission: 5 speed manual
Fuel Consumption:		
Drive cycle	Litres/100km	mpg
Urban	5.4	52.3
Extra urban	3.8	74.3
Combined	4.4	64.2
Carbon dioxide emissions (g/km): 117g/km		
Important note: Some specifications of this make/model may have lower CO <sub>2</sub> emissions than this. Check with your dealer.		

CO2 emissions figure

The black arrow points to the vehicle's relevant band of CO2 emission on which Vehicle Excise Duty (VED or Road Tax) is based.

Running costs

Average yearly fuel costs are calculated and displayed together with the relevant level of Road Tax. Figures updated with recent prices.

Fuel consumption

Shows how efficient the car is in miles per gallon and litres per 100km in town, country and combined driving situations.

Exmple fuel economy label from the United Kingdom



# LOW EMISSION ZONES

*POLICY PAPER: Low-Emission Zones (LEZs) and Prerequisites for Sustainable Cities and Clean Air in Egypt*

*By: TBS, CEDARE & UN Habitat , FES  
Authors: Ahmed El-Dorghamy, Maha Attia*

This policy paper aims to introduce Low-Emission Zones (LEZs) concepts in Egypt in a manner accessible to the general public and non-experts and experts alike. It aims to discuss the position of the country in terms of readiness to implement LEZs policies and recommend how to meet such ambitions in a manner suitable for the current circumstances.

## Solution Proposal for Greater Cairo region LEZs

The LEZs policy in the GCR can be implemented on 3 different phases, each with a certain level of restrictions that is suitable to the area infrastructure.

**The first scenario shall include different sub-zones in historical and old Cairo neighborhoods**, to decrease the inner-city pollution, protect valuable touristic locations and benefit from the existing public transportation network. This phase can act as a pilot LEZs practice, even though the sub-zones might have a minor impact, they will provide proper marketing for the policy application. The initial phase, however, can either be composed of sub-zones or be covered as one large LEZ, to guarantee the maximum emission reduction effect.

**The second scenario can include the New Administrative Capital to connect with the latest public transport developments.** It can start after the area is relatively inhabited to prevent future pollutants' spread and allow the area to sustain its natural air quality. The third scenario is suggested to include all the areas within the inner ring road boundaries (learning from the global practices, i.e. London and Rotterdam). The delay in this phase is to guarantee more social, economic, and political preparations for the restrictions. Finally, the LEZ can be simultaneously experimented and applied in neighboring cities, to prevent future pollution threats and to regulate all the new vehicle registrations.





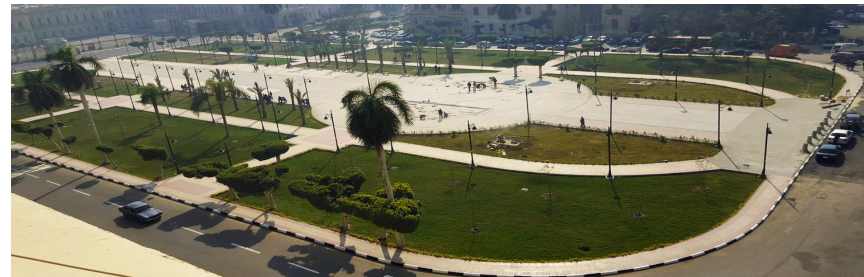
# IMPROVING THE WALKING EXPERIENCE



*Renders from the Project*

Access to Public Spaces - Upgrading the Urban Environment to be enjoyable and safer pedestrian experience.

# ABDEEN SQUARE URBAN UPGRADE



*Renders from the Project*

*Real life photos after the Urban Upgrade*

