Improved Management Of Ewaste And Healthcare Waste To Reduce Emissions Of Unintentionally Produced POPs (UPOPs)

Part I: Project Information

GEF ID
10879

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Improved Management Of Ewaste And Healthcare Waste To Reduce Emissions Of Unintentionally Produced POPs (UPOPs)

Countries
Egypt

Agency(ies)
World Bank

Other Executing Partner(s)
Ministry of Environment

Executing Partner Type
Government

GEF Focal Area
Chemicals and Waste

Taxonomy
Focal Areas, Chemicals and Waste, Mercury, Sound Management of chemicals and waste, Waste Management, eWaste, Hazardous Waste Management, Persistent Organic Pollutants, Uninentional Persistent Organic Pollutants, Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Stakeholders, Civil Society, Non-Governmental Organization, Private Sector, Type of Engagement, Consultation, Information Dissemination, Participation, Communications, Education, Public Campaigns, Behavior change, Awareness Raising, Beneficiaries, Gender Equality, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Access to benefits and services, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Capacity, Knowledge and Research, Learning, Indicators to measure change, Theory of change, Knowledge Generation, Workshop, Training, Knowledge Exchange, Conference

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 0

Duration
48 In Months

Agency Fee($)
867,579.00

Submission Date
9/15/2021

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CW-2-3	GET	9,132,421.00	142,000,000.00
	Total Project Cost ($)	**9,132,421.00**	**142,000,000.00**

B. Indicative Project description summary

Project Objective

Project Objective: To reduce air and climate emissions from critical sectors and increase resilience to air pollution in Greater Cairo. The specific objective of the proposed GEF-supported AF is to assist the country in reducing uPOPs emission and other materials of global concern through improved management of E-Waste and Healthcare Waste (HCW).

Project Outcomes

Component 1: Enhancing the Air Quality Management & Response System

1.1. Strengthened capacity for pollution management and response Air Quality Management (AQM) tools

Component 2: Support the Operationalization of SWM Master Plans in Greater Cairo

2.1. Development of new and/or upgrading of existing waste management infrastructure

2.2. COVID-19 Pandemic Response and Improved Healthcare Waste Management

2.2. Enabling, capacity-building and institutional strengthening activities for SWM

Component 3: Vehicle Emission Reduction

3.1. Low/no emission public bus transport fleet and related infrastructure upgraded and acquired

3.2. Enabling activities to improve city wide transportation planning and operations

Component 4: Enhanced Capacity, Behavioral Change and Communication

4.1 Enhanced capacity and behavioral change for SWM

4.2 Communication and outreach activities

Component 5: Project Management and Monitoring & Evaluation

5.1. Implementation, coordination, supervision and overall management of the project

Component 6: Enhanced E-Waste and HCW management for Reduction of uPOPs

6.1. Effective E-Waste management, models and solutions tested and supported

6.2. Effective HCW management, models and solutions tested and supported

Project Component	Financing Type	Trust Fund	GEF Amount($)	Co-Fin Amount($)
Component 1: Enhancing the Air Quality Management & Response System	Investment	GET		
Component 2: Support the Operationalization of SWM Master Plans in Greater Cairo	Investment	GET		126,000,000.00
Component 3: Vehicle Emission Reduction	Investment	GET		
Component 4: Enhanced Capacity, Behavioral Change and Communication	Technical Assistance	GET		6,200,000.00
Component 5: Project Management and Monitoring & Evaluation	Technical Assistance	GET		3,040,000.00
Component 6: Enhanced E-Waste and HCW management for Reduction of uPOPs	Technical Assistance	GET	8,697,551.00	
		Sub Total ($)	**8,697,551.00**	**135,240,000.00**
Project Management Cost (PMC)				
		GET	434,870.00	6,760,000.00
		Sub Total($)	**434,870.00**	**6,760,000.00**
		Total Project Cost($)	**9,132,421.00**	**142,000,000.00**

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	World Bank	Loans	Investment mobilized	142,000,000.00
			Total Project Cost($)	**142,000,000.00**

Describe how any "Investment Mobilized" was identified

The investment mobilized for this project presented as co-financed derives from the parent project “Egypt: Greater Cairo Air Pollution Management and Climate Change Project (P172548)” approved on September 30, 2020, and effective since June 9, 2021, with the total project funding as US$200M. This project is a blended project. All parent project components are listed in the Indicative Project Description Summary. However, co-financing is provided to the proposed GEF-financed component (Component 6) from Components 2, 4 and 5 of the Parent project amounts provided in brackets are not accounted for as co-financing.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
World Bank	GET	Egypt	Chemicals and Waste	POPs	9,132,421	867,579	10,000,000.00
				Total GEF Resources($)	**9,132,421.00**	**867,579.00**	**10,000,000.00**

E. Project Preparation Grant (PPG)

PPG Required **false**

PPG Amount ($)

PPG Agency Fee ($)

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
				Total Project Costs($)	0.00	0.00	0.00

Core Indicators

Indicator 9 Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
0.29	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
0.29			

Indicator 9.3 Hydrochloroflurocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 Quantity of POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 10 Reduction, avoidance of emissions of POP to air from point and non-point sources (grams of toxic equivalent gTEQ)

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
7			

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	8,730,000			

Male	9,270,000			
Total	18000000	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

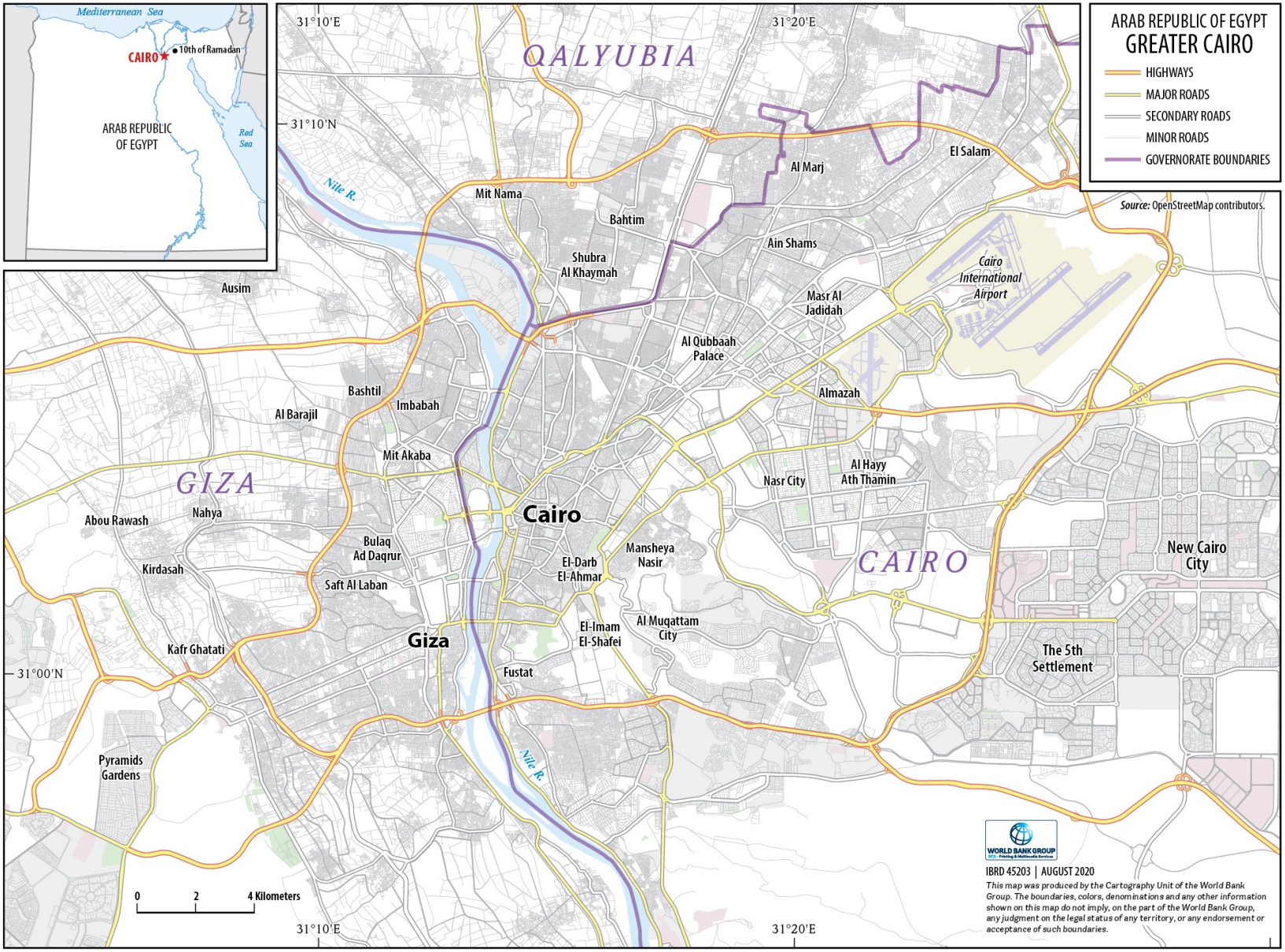
Reduction/avoidance of emissions of POPs to air from HCW is calculated based upon the Assessment Study of HCW in Egypt (2014) combined with additional data on expected HCW waste generated per bed by WHO in Egypt. Reduction/avoidance of emissions of POPs to air from eWaste is calculated based on the Öko-Institut E.V/CEDARE trend analysis on WEEE and ELV generation through 2025 in Egypt; and Stockholm convention guidance documents of UNIDO, UNITAR, Stockholm Convention Secretariat (2012) Case Study on inventory of PBDEs in electrical and electronic equipment (EEE) and related waste (WEE). GC eWaste data were calculated based upon a percentage reduction from the total quantities of eWaste in Egypt. Additional co-benefits of 0.294t Hg are expected from activities conducted in the HCW sector. Number of direct beneficiaires disaggregated by gender might be revised once the project coordinates are confirmed.

Part II. Project Justification

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Greater Cairo and 10th of Ramadan sites. (Approved maps)


ARAB REPUBLIC OF EGYPT
GREATER CAIRO
HIGHWAYS
MAJOR ROADS
SECONDARY ROADS
MINOR ROADS
GOVERNORATE BOUNDARIES
Source: OpenStreetMap contributors.
Mediterranean Sea
CAIRO
10th of Ramadan
ARAB REPUBLIC OF EGYPT
Red Sea
QALYUBIA
GIZA
CAIRO
Nile R.
31°10'E
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Bahtim
Shubra Al Khaymah
Al Marj
El Salam
Ain Shams
Masr Al Jadidah
Cairo International Airport
Al Qubbaah Palace
Almazah
Ausim
Bashtil
Imbabah
Al Barajil
Mit Akaba
Nasr City
Al Hayy Ath Thamin
Cairo
Abou Rawash
Nahya
Bulaq Ad Daqrur
Mansheya Nasir
El-Darb El-Ahmar
Kirdasah
Saft Al Laban
New Cairo City
El-Imam El-Shafei
Al Muqattam City
Giza
Kafr Ghatati
The 5th Settlement
Fustat
Pyramids Gardens
0 2 4 Kilometers
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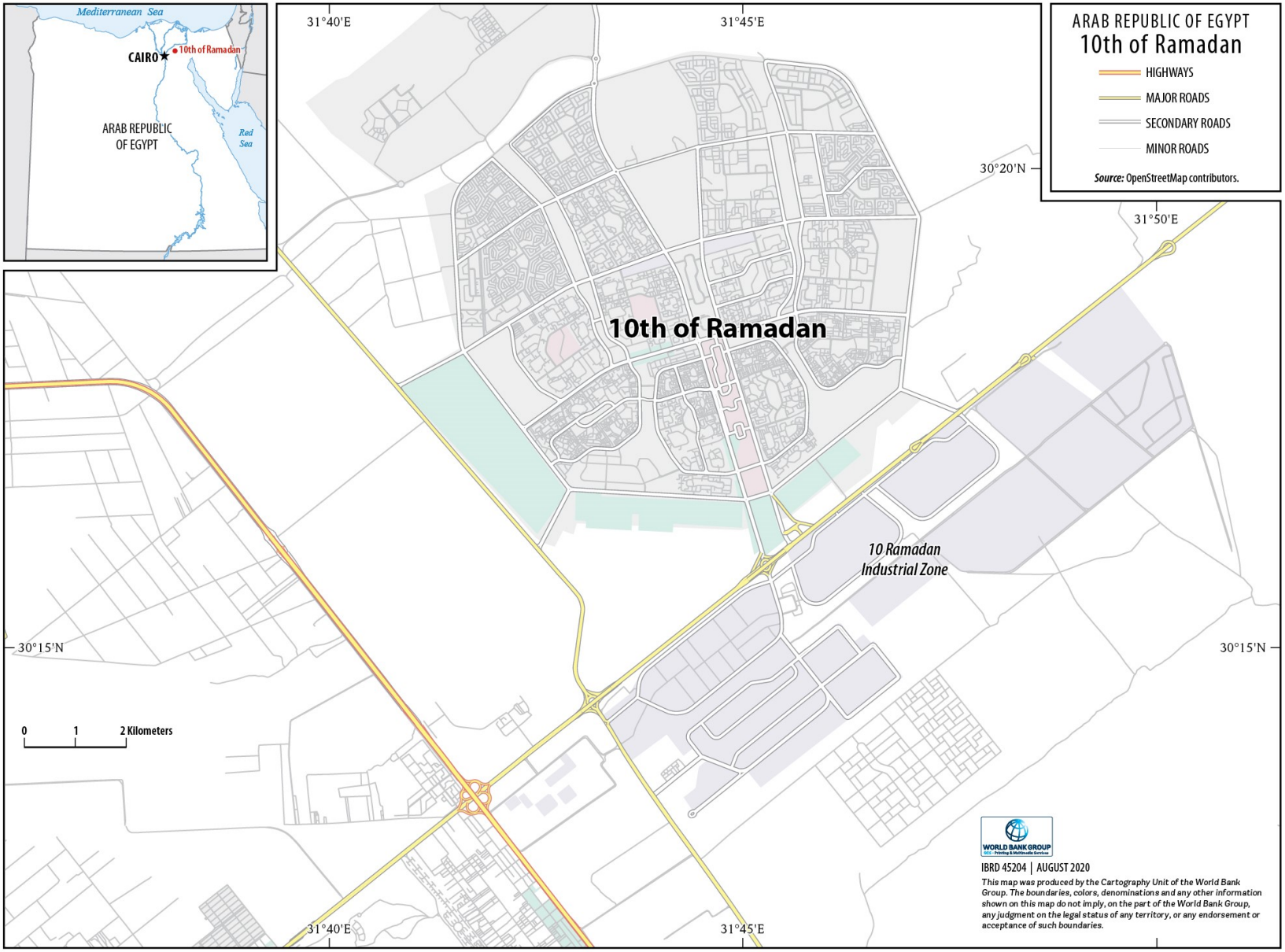
Mediterranean Sea
CAIRO
10th of Ramadan
ARAB REPUBLIC OF EGYPT
Red Sea
31°40'E
31°45'E
31°50'E
30°20'N
30°15'N
10th of Ramadan
10 Ramadan Industrial Zone
0 1 2 Kilometers
ARAB REPUBLIC OF EGYPT
10th of Ramadan
HIGHWAYS
MAJOR ROADS
SECONDARY ROADS
MINOR ROADS
Source: OpenStreetMap contributors.
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2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

Major stakeholders for eWaste activities are government entities and informal sector recyclers and other private or public sector entities, e.g., shopping centers, universities. Stakeholders will be involved in preparation of specific activities during the appraisal stage of the project and during implementation, as partners and beneficiaries to specific technical assistance activities. Major stakeholders for HCW activities, include government agencies, hospital administrators, staff, and formal and informal workers in the waste sorting, collection and transport sector. They will be included in activity design during appraisal and throughout implementation. Certain stakeholders, such as government agencies and the Zabaleen are already part of the Stakeholder plans under the Parent Project.

Some project activities will focus on working with both recently 'formalized' entities in the recycling sector and recyclers still in the informal sector. In line with activities being undertaken in Component 2 on Solid Waste Management of the parent project, activities will be designed to ensure that individuals, informal enterprises, and communities (e.g., the Zabaleen) are fully integrated into the project design and implementation. Stakeholder engagement will be a key element of ensuring that parties involved in waste sorting, recycling and re-sale are fully engaged with the project and not 'shut out' of new circular economy approaches.

The project concept was developed in close collaboration with UNDP/GoE and in line with stakeholder participation of the parent project preparation. During appraisal further stakeholder participation will be sought to ensure their input inot project design, especially for vulnerable groups, such as women and the Zabaleen.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Additional information on beneficiaries will be gathered at the time of appraisal, which will include a gender analysis to ensure that activities are appropriately targeted and designed to ensure the needs of women are fully taken into account and to ensure their participation.

Women are predominantly responsible for the manual sorting of waste in separate piles of recyclables, while the collection process is mostly dominated by men. In fact, women tend to have limited access to protection and safety gear, associated to a lack of information on health risks from hazardous substances and on properly handling this type of waste. Furthermore, women (mainly working in the informal sector) tend to have a lower income and less access to productive assets than men, in addition to limited access to technical and business training, making them more likely to be excluded from better employment opportunities within the solid waste recycling value chain. Thus, the project will address gender gaps with respect to accessing economic activities in GC by addressing constraints for females in obtaining for better jobs in the solid waste sector/value chain. The project will support targeted capacity-building and livelihood enhancement for female informal workers (waste pickers/recyclers) operating in the Greater Cairo area, increase their participation and support the engagement of women's groups/female-headed NGOs in the monitoring of SWM to ensure that service-delivery meets the demands of the most vulnerable women (e.g., low-income and heads of single-parent households).

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources;

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The proposed GEF-supported AF is designed to capitalize and expand on other key initiatives undertaken in Egypt. This project envisages the involvement of the private sector through demonstration activities to assess recycling capacity and business potential for expanding the market for recycled goods. It aims at establishing collection schemes that go beyond the household level by piloting innovative approaches in the management of eWaste and HCW, reducing waste upstream and creating economic value through recycling initiatives. Global experience has shown that private sector participation in SWM infrastructure and service provision can leverage significant investments, create additional jobs and improve service provision. Accordingly, such engagement will contribute to the goals of improving and systemizing the country's ability to effectively manage waste over the long term.

5. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Main project environmental and social risks are described below. Explanation of the measures to address these risks is provided in the uploaded project Environmental and Social Review Summary document (ESRS)

Environmental Risk Rating High

While the objective of the project is to improve the overall environmental conditions in GCA through reduction of air emissions from burning solid wastes and vehicle emissions, the construction and operation activities to achieve the desired objectives will, themselves, have significant negative environmental and social impacts, which need significant, costly and highly technical mitigation measures. The integrated waste management facilities (IWMF) near 10th of Ramadan city, will include sanitary landfills, infrastructure for different hazardous/non-hazardous waste streams recycling (e.g. domestic, organic, electric/electronic, medical, etc.) as well as access and internal infrastructure to serve the facility operations (e.g. roads, water network, electricity, sewage, etc.). During construction, typical associated risks and impacts include air emissions from construction machinery and earth movement, noise, soil contamination, generation of solid and liquid wastes, use of hazardous chemicals, generation of hazardous wastes, occupational health and safety risks and road safety risks due to the movement of construction vehicles and equipment to and from the construction sites. These impacts are expected to be moderately significant, temporary, mostly site-specific with some irreversible impacts such as changes in the landscapes and land use. However, the operation of the IWMF, if not properly designed, constructed or operated, may result in contamination of soil and groundwater by leachate, generation of landfill gas and odors from the degradation process, spread of harmful insects and increase in scavenging animals in addition to significant occupational exposure to chemicals, pathogens and vectors and significant risks to public health and nearby communities. Also, transfer stations construction and operation entail typical construction impacts in addition to operation phase impacts, which are mainly related to management of waste, leachate management, littering and visual impacts, disposal of some hazardous materials, and air quality impacts. Additionally, closing of dumpsites and removing of historical and current accumulation will entail significant occupational health and safety risks due to occupational exposure to pathogens, victors and chemicals. The activities while will be performed to close old dumpsite(s) will also entail significant health risks to the project workers. Under Component 3, while the overall outcome of this component is environmentally positive aiming at reducing air emissions from the old diesel-operated public busses, there are still some negative environmental impacts associated with the operation and maintenance of the new buses. These impacts are associated with the disposal of batteries of the e-busses and the scrapping of the retrofitted busses, which may also result in negative environmental impacts related to disposal of solid and hazardous wastes resulting (e.g. disposal of engine oils, batteries, electronic wastes, etc.). Activities under the TA sub-components (under components 2 and 3) and the additional component 6 and its subcomponents in the additioal finance may result in high risk physical interventions or activities that are associated with significant environmental and social implications. The Project is likely to generate a wide range of significant adverse risks and impacts mainly on the environment. This is due to the complex nature and the large scale of the project. The expected impacts are high in magnitude, have significant adverse cumulative impacts, a high probability of serious adverse effects to human health and/or the environment (e.g. due to accidents, toxic waste disposal, etc.). In addition, the Borrower and the implementing agencies have no prior experience in implementing ESF requirements and have quite limited capacity in developing complex projects which may present significant challenges given the nature of the Project's potential risks and impacts.

Social Risk Rating High

At this stage of the project, the analysis for the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential social risks and impacts; and the capacity and commitment of the Borrower revealed that the social risk should be classified as high. This analysis was made in light of the available information and could be reviewed, including during implementation, and the classification be changed as necessary, to ensure that it is appropriate. Below are the main justifications for the high social risk: 1) In relation to the type and sensitivity of the activities, component 2 as well as the TA under component 2 and 4 and the additional finance activities will support interventions and contractual agreements that will make the SWM, eWaste and healthcare waste value chains more efficient and financially sustainable. Those formal operational layers might disturb the informal sector entry points in the value chain posing a risk of their exclusion and/or unequal opportunities. This is specifically applicable to: A) Traditional garbage collectors (Zabbaleen) who have been

running their family businesses related door-to-door collection, sorting, recycling and manufacturing and have been offering a service perceived as efficient. If the SWM chain upgrade does not engage them, there is a social risk of exclusion, loss of livelihoods and conflict. B) informal waste collectors (if any) who might be inovlved in the eWaste collection and trading, C) Informal waste pickers who are operating on full time basis in the dumpsites. They are usually engaged in sorting and selling recyclables. Once more information is obtained, more consultation will be undertaken with them. D) During the course of project implementation, streets of GCA are expected to become cleaner, street containers and garbage piles to be more frequently removed, the street waste pickers who recover recyclables from those locations to sell them, will not find much recyclables left. This is a less organized group and the impact on them is expected to be less sever because of their causal and part time working mode which make it also very difficult to track and quantify them. 2) Physical interventions may pose land and livelihoods related negative impacts: The location of one of the integrated facilities has been determined on vacant state-owned land plot, free of users. A retroactive review revealed no risk. However, locations of the transfer stations as well as the HWTDF have not been finally identified yet. The Government advanced in the purchase of one slot of land for a transfer station which is currently subject to a due diligence exercise by the Bank to verify and confirm the voluntary nature of the transaction. . While the selection of the land of those facilities is expected to be on state-owned land, there is a risk that the selected locations are either privately owned or used by squatters. Additionally, when screening for land impacts, the buffer zones/right-of-way and access roads for landfills will also be included, which may have impacts on the plan of land use in the area. 3) Sub-component 2.3.1., the package of the TA support offerings to WMRA includes range of topics on financial management and service sustainability. Along with the issuance of the new Law, service fees increase is quite probable, and it associates with risk related to affordability, financial burden and low levels of willingness to pay. 4) Component 2, with major construction activities anticipated, labor related risks are applicable, including risk of child and forced labor, unfair and/or unclear contract terms and conditions, discrimination and non-equal opportunities and GBV/ SEA. Further elaboration is included in the LMP. 5) The location of the undetermined SWM facilities risk to be inadequate and lead to communities' discontent to have those facilities close to their houses or lands ("Not in my backyard" situation). Resulting in neighboring communities to likely oppose to the project. 6) Complexity of the project and diversity of the activities, with relatively limited institutional capacity and familiarity with the ESF.

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
ESRS GCAPCC	
ESRS-AF-DRAFT_Sep 14_ 2021	

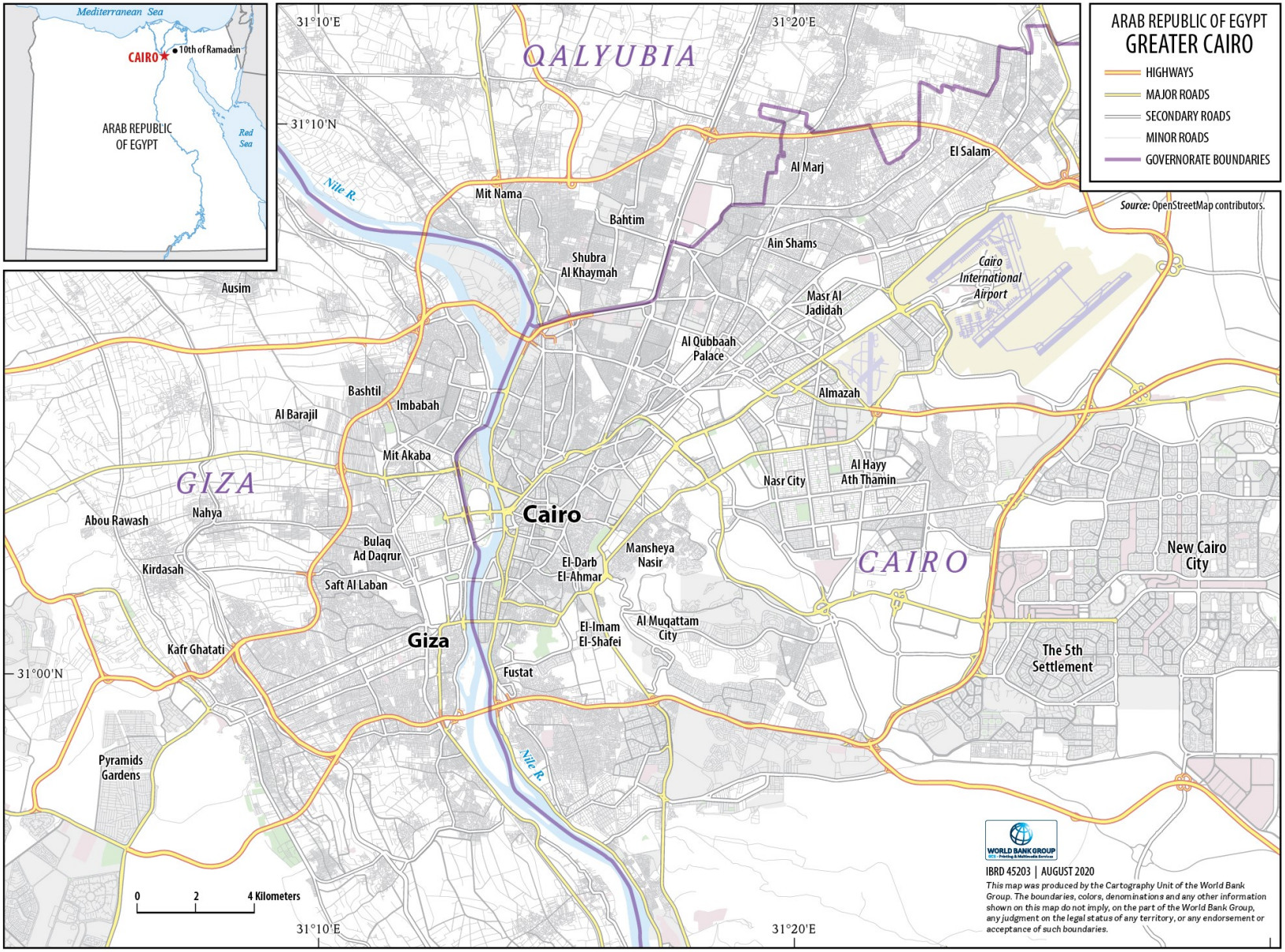
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Eng. Ali Abo Sena	Chief Executive Officer, Egyptian Environmental Affairs Agency	Ministry of Environment, Egyptian Environmental Affairs Agency	9/15/2021

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place


ARAB REPUBLIC OF EGYPT
GREATER CAIRO
HIGHWAYS
MAJOR ROADS
SECONDARY ROADS
MINOR ROADS
GOVERNORATE BOUNDARIES
Source: OpenStreetMap contributors.
Mediterranean Sea
CAIRO
10th of Ramadan
ARAB REPUBLIC OF EGYPT
Red Sea
QALYUBIA
GIZA
CAIRO
Nile R.
31°10'E
31°20'E
31°10'N
31°00'N
Mit Nama
Bahtim
Shubra Al Khaymah
Al Marj
El Salam
Ain Shams
Masr Al Jadidah
Cairo International Airport
Al Qubbaah Palace
Almazah
Ausim
Bashtil
Imbabah
Al Barajil
Mit Akaba
Nasr City
Al Hayy Ath Thamin
Cairo
Abou Rawash
Nahya
Bulaq Ad Daqrur
Mansheya Nasir
El-Darb El-Ahmar
Kirdasah
Saft Al Laban
New Cairo City
El-Imam El-Shafei
Al Muqattam City
Giza
Kafr Ghatati
The 5th Settlement
Fustat
Pyramids Gardens
0 2 4 Kilometers
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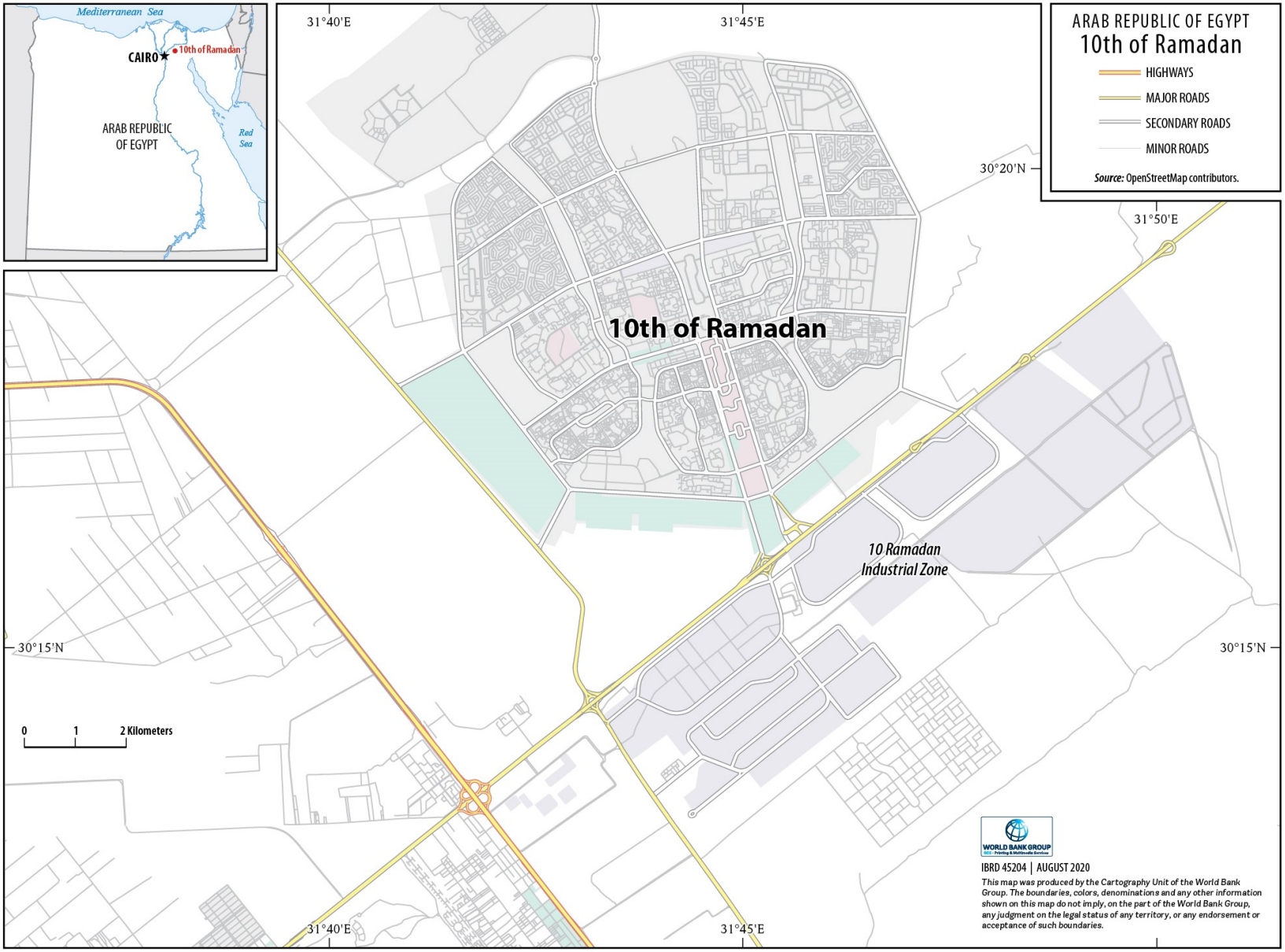
Mediterranean Sea
CAIRO
10th of Ramadan
ARAB REPUBLIC OF EGYPT
Red Sea
31°40'E
31°45'E
31°50'E
30°20'N
30°15'N
10th of Ramadan
10 Ramadan Industrial Zone
0 1 2 Kilometers
ARAB REPUBLIC OF EGYPT
10th of Ramadan
HIGHWAYS
MAJOR ROADS
SECONDARY ROADS
MINOR ROADS
Source: OpenStreetMap contributors.
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