



## Scaling-up the adoption of electric mobility in Tunisia

### Part I: Project Information

#### Name of Parent Program

Global Programme to Support Countries with the Shift to Electric Mobility.

#### GEF ID

10607

#### Project Type

MSP

#### Type of Trust Fund

GET

#### CBIT/NGI

CBIT No

NGI No

#### Project Title

Scaling-up the adoption of electric mobility in Tunisia

#### Countries

Tunisia

#### Agency(ies)

UNIDO

#### Other Executing Partner(s)

Agence Nationale Pour La Maitrise De l'Energie (ANME)

#### Executing Partner Type

Government

#### GEF Focal Area

Climate Change

**Taxonomy**

Focal Areas, Climate Change, Climate Change Mitigation, Renewable Energy, Sustainable Urban Systems and Transport, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Transform policy and regulatory environments, Stakeholders, Civil Society, Academia, Non-Governmental Organization, Type of Engagement, Consultation, Participation, Information Dissemination, Communications, Awareness Raising, Education, Private Sector, Individuals/Entrepreneurs, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Beneficiaries, Gender results areas, Access to benefits and services, Capacity Development, Participation and leadership, Knowledge Generation and Exchange, Integrated Programs, Sustainable Cities, Transport and Mobility, Capacity, Knowledge and Research, Knowledge Generation, Training, Workshop, Learning, Knowledge Exchange, Conference

**Sector**

Transport/Urban

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 2

**Climate Change Adaptation**

Climate Change Adaptation 0

**Submission Date**

12/2/2021

**Expected Implementation Start**

5/1/2022

**Expected Completion Date**

4/30/2027

**Duration**

60In Months

**Agency Fee(\$)**

160,638.00

**A. FOCAL/NON-FOCAL AREA ELEMENTS**

<b>Objectives/Programs</b>	<b>Focal Area Outcomes</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CCM-1-2	Promote innovation and technology transfer for sustainable energy breakthroughs for electric drive technologies and electric mobility	GET	1,784,862.00	11,000,000.00
<b>Total Project Cost(\$)</b>			<b>1,784,862.00</b>	<b>11,000,000.00</b>

## B. Project description summary

### Project Objective

To scale up and catalyze the adoption of electric mobility across Tunisia resulting in GHG emission reductions, and position the country as a logistic hub for the region

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Institutionalization of low-carbon electric mobility	Technical Assistance	<p><b>Outcome 1.1</b> Electric mobility is institutionalized in the policy framework through implementation of the National Transport Master Plan</p>	<p><b>Output 1.1.1</b> National Electric mobility Coordination Unit is established</p> <p><b>Output 1.1.2</b> National strategy on electric mobility and its impact regarding climate change is developed and presented for validation by the concerned Ministries</p> <p><b>Output 1.1.3</b> Existing policy and regulatory frameworks reviewed and strengthened to support the deployment of EV-RE infrastructure: Policy drafted and ready for adoption</p>	GET	240,000.00	1,440,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Demonstration of low-carbon e-mobility solutions	Technical Assistance	Outcome 2.1: Potential benefits of sustainable mobility are demonstrated	<b>Output 2.1.1</b> Feasibility studies for EV-RE pilot demonstrations in Bizerte, Sfax and Djerba incl. economic, social and technical aspects (localisation-optimisation research, financial mechanisms and options to support implementation) are developed	GET	160,000.00	1,440,000.00
Component 2: Demonstration of low-carbon e-mobility solutions	Investment	Outcome 2.1: Potential benefits of sustainable mobility are demonstrated	<b>Output 2.1.2</b> EV-RE pilot demonstrations in Sfax, Bizerte and Djerba are financed and implemented	GET	762,602.00	5,100,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Preparing for scale-up and replication for long-term sustainability of low-carbon electric mobility	Technical Assistance	Outcome 3.1: EV-RE pilot demonstrations are effectively showcased within the Global Electric Mobility Programme, resulting in new e-mobility investments	<p><b>Output 3.1.1</b> Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in four cities in Tunisia)</p> <p><b>Output 3.1.2</b> Annual meetings and other dissemination events including the Global Electric Mobility Programme</p>	GET	340,000.00	1,700,000.00
Component 4: Monitoring and Evaluation	Technical Assistance	Outcome 4.1: Adequate monitoring of all project indicators in line with GEF, UNIDO and GoT requirements	<p><b>Output 4.1.1</b> Monitoring and independent mid-term review</p> <p><b>Output 4.1.2</b> Independent terminal evaluation conducted</p>	GET	120,000.00	320,000.00
<b>Sub Total (\$)</b>					<b>1,622,602.00</b>	<b>10,000,000.00</b>

**Project Management Cost (PMC)**

GET	162,260.00	1,000,000.00
<b>Sub Total(\$)</b>	<b>162,260.00</b>	<b>1,000,000.00</b>
<b>Total Project Cost(\$)</b>	<b>1,784,862.00</b>	<b>11,000,000.00</b>

**Please provide justification**

**C. Sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Municipality of Bizerte	In-kind	Recurrent expenditures	140,000.00
Recipient Country Government	Municipality of Bizerte	Grant	Investment mobilized	215,000.00
Recipient Country Government	Municipality of Sfax	In-kind	Recurrent expenditures	157,000.00
Recipient Country Government	Municipality of Sfax	Grant	Investment mobilized	357,000.00
Recipient Country Government	Municipality of Djerba	In-kind	Recurrent expenditures	216,000.00
Recipient Country Government	Municipality of Djerba	Grant	Investment mobilized	216,000.00
Recipient Country Government	Ministry of Environment (Own budget)	In-kind	Recurrent expenditures	360,000.00
Recipient Country Government	Ministry of Environment (Own budget)	Grant	Investment mobilized	720,000.00
Recipient Country Government	Ministry of Environment/GIZ (NDCs)	Public Investment	Investment mobilized	4,738,260.00
Recipient Country Government	National Agency for Energy Management (Agence nationale pour la conservation de l'énergie - ANME)	In-kind	Recurrent expenditures	1,000,000.00



Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	National Agency for Energy Management (Agence nationale pour la conservation de l'nergie - ANME)	Grant	Investment mobilized	700,000.00
Recipient Country Government	The National School of Advanced Science and Technology	Grant	Investment mobilized	190,759.00
Private Sector	Actia	Grant	Investment mobilized	1,789,981.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	150,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	50,000.00
<b>Total Co-Financing(\$)</b>				<b>11,000,000.00</b>

**Describe how any "Investment Mobilized" was identified**

Investments mobilized were identified during stakeholder consultations (ministries, municipalities, private sector) through discussions on funding priorities and according to existing projects and pipeline of projects. Following this identification, meetings were held with the different parties to determine their role in the project and the components in which they are involved. Under Component 1, funds will support the revision of the policy and regulatory framework to unlock finance flows for grid-integrated e-mobility solutions. The co-financing of the Ministry of environment is particularly oriented towards strengthening the national policy to combat the impact of climate change through the implementation of the Nationally Determined Contributions (NDCs) for the support of the adaptation of cities to climate change. The transport sector is a priority in the framework of these programmes both in terms of strategy and concrete action to promote sustainable transport (electric mobility) and reduce barriers to the development of electric mobility. Feasibility studies will be developed under Component 2 and a competitive bidding process will be initiated to select the private supplier(s) which will be in charge of the installation of the electric urban freight solutions. ACTIA, private company specialized in the fabrication/assembly of EVs related components will provide co-financing for these low-carbon transportation investments. Please note that only part of the amount of the ACTIA letter was found relevant to the project and taken into account. We estimate that only USD1,789,981 will co-finance directly the project activities. Should additional co-financing be mobilized, the project will report on this in the PIRs as well as reflect the changes in the MTR and TE reports. Should additional co-financing be mobilized throughout the implementation of the

project, it will be reported in the PIRs as well as reflected in the MTR and TE reports. ANME, as project executing entity, will contribute to the implementation of Output 2.1.2 EV-RE pilot demonstrations in Sfax, Bizerte and Djerba through technical assistance, cofinancing the realization of urban development plans and contributing through the energy transition fund in the acquisition of electric vehicles and photovoltaic units. ANME specified that the "subsidy" amounts are amounts that will be granted by ANME as grants from the Energy Transition Fund (ETF) to the municipalities involved in the programme. In addition to their contribution in kind, the municipalities mobilize their own funds which will serve as a contribution to the acquisition of electric vehicles. Under Component 3, The Renewable Energy-based E-Mobility in Higher Education (REMO) project will contribute to the implementation of the Output 3 ?Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in other cities in Tunisia? through the creation of an international master's degree and the development of a research programme on e-mobility. Themes of Interest are: - Power electronics: Converters and Vehicle Electronics (Fundamentals, Modelling) - Electric drives: Instrumentation, Diagnostic, monitoring and reconfiguration, - Energy for electric vehicles, On-board storage, Charging infrastructures - Data: Automotive IT-Security, Bus Systems, Data Communication, and Big-Data - Propulsion system: Electric, hybrid, - Methodology to carry out research project - E-mobility: Environmental, economic, social aspects; Standards Regulations and policies, Market Analysis in E-Mobility. Co-financing letter is in EUR for the NDCs letter and the National School of Advanced Science and Technology and August UN exchange rate was used as the letters were signed in August.

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

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNIDO	GET	Tunisia	Climate Change	CC STAR Allocation	1,784,862	160,638	1,945,500.00
<b>Total Grant Resources(\$)</b>					<b>1,784,862.00</b>	<b>160,638.00</b>	<b>1,945,500.00</b>

**E. Non Grant Instrument**

NON-GRANT INSTRUMENT at CEO Endorsement

---

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

**F. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,500

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programmin g of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNIDO	GET	Tunisia	Climate Change	CC STAR Allocation	50,000	4,500	<b>54,500.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,500.00</b>	<b>54,500.00</b>

## Core Indicators

### Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	0	1538834	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	3581071	0	0

### Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)				
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

### Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)		1,538,834		
Expected metric tons of CO <sub>2</sub> e (indirect)		3,581,071		
Anticipated start year of accounting		2022		
Duration of accounting		15		

### Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)		41,406,175,319		

### Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
Solar Photovoltaic <b>select</b>		0.22		

**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)
<b>Female</b>		57,590		
<b>Male</b>		47,590		
<b>Total</b>	0	105180	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

## **Part II. Project Justification**

### **1a. Project Description**

#### **describe any changes in alignment with the project design with the original pif**

PPG phase started in September 2020 and ended in November 2021. It started with an online inception workshop with all the relevant stakeholders from the public and private sector in Tunisia. Please refer to the Stakeholder Engagement Plan Annex for more details. Key Government stakeholders such as the Ministry of Environment, the Ministry of Transport, the Ministry of Industry, the Ministry of Trade, the Ministry of Equipment, the National Agency for Energy Management, the National Agency for Environmental Protection, the Caisse des prêts et de Soutien des Collectivités Locales (Loan and Support Fund for Local Authorities), the Tunisian Agency for Land Transport, the Tunisian Electricity and Gas Company, and the municipalities of Bizerte, Sfax and Djerba attended among 50 participants. The project was presented and electric mobility barriers were discussed as well as possible solutions and activities that the project could propose to address them. Municipalities expressed their interest in the project and their commitment to actively contribute to its implementation. In their presentations, the representatives of the municipalities discussed their vision and their position with regard to the objectives of the project in relation to strategic sustainable planning and the place of transport in this planning. They reported on ongoing or planned projects concerning sustainable transport. They also expressed their expectations from the electric mobility project.

It was followed by multiple online and presentational consultations with the different stakeholders (please refer to the Stakeholder Engagement Plan Annex) to discuss activities, co-financing and role of the different partners during the project implementation and beyond.

To roll-out its technical assistance program, UNIDO convened target Municipalities at a mini-academy workshop on January 13, 2021, called the "City Creditworthiness Mini-Academy". Participants included representatives from the Central Government as well as from five Municipalities (Sfax, Bizerte, Djerba Houmet Essouk, Djerba Ajim, Djerba Midoun). The workshop provided participants with a conceptual framework for Municipal Finance and the specific Tunisian context for local governments' financing. At the Mini-Academy, participants were introduced to the private sector perspective on sub-sovereign investments, with particular emphasis on financing mechanisms that could be available to creditworthy entities. Borrowing instruments were discussed in greater length, including the distinction between bond structures and related enhancement mechanisms. A firm understanding of these instruments is necessary to agree with cities on the next steps under the technical assistance program. A follow up meeting was held with the Municipalities on May 19, 20 and 22, 2021 to determine their need for technical assistance. A rapid self-assessment exercise was carried out to gather the basic information on the city's preparedness for long-term non-concessional financing.

Finally, the PPG work and the final activities was presented and validated during a final workshop.

The objective and components remain unchanged compared to the Child concept note submitted in June 2020. However, the following changes were made to the project design:



a) The content of outputs has been aligned to national and municipal priorities following consultations and suggestions from key stakeholders.

<b>Child Project concept note</b>	<b>CEO Endorsement project document</b>	<b>Comments</b>
<p>Output 1.1.2 Policy and regulatory frameworks are reviewed and recommendations are identified to support the deployment of EV-RE infrastructure</p> <p>Output 1.1.3 Policy and regulatory frameworks are reviewed and recommendations are identified to catalyze RE uptake and enable grid integration</p>	<p>Output 1.1.2 National strategy on EV and its impact regarding climate change is developed and presented for validation by the concerned Ministries</p> <p>Output 1.1.3 Policy and regulatory frameworks are reviewed and recommendations are identified to support the deployment of EV and grid integration of EV</p>	<p>The definition of a national strategy seems to be a prerequisite to the writing of new policies and regulatory framework.</p> <p>Tunisia is active on renewable energy policy definition and is supported by international programs in this purpose. The priority is to define policies and a regulatory framework for electric mobility.</p>
<p>Output 2.1.1 Capital investment plan for Sfax (industrial zone), Bizerte (industrial zone and free zone) and Djerba (logistics hub) is developed</p>	<p>Output 2.1.1 Feasibility studies for EV-RE pilot demonstrations in Bizerte, Sfax and Djerba incl. economic, social and technical aspects (localisation-optimisation research, financial mechanisms and options to support implementation) are developed</p>	<p>Pilot demonstrations have been defined in cooperation with municipalities. These demonstrations need feasibility studies before implementation, including not only financial issues, but also technical, economic and environmental issues.</p>

b) Co-financing for the project global amount shifted to while change/refinement of co-financing partners and related amounts are captured in the following table:

<b>Name of Co-financier</b>	<b>Estimated co-financing amount at Child project concept note stage</b>	<b>Committed co-financing amount at CEO Endorsement Project Document</b>	<b>Comments</b>
Local NGOs and associations	In-kind: 500,000	0	No NGOs co-financing has been identified

Municipalities	In-kind: 750,000 Grant: 750,000	In-kind: 513,000 Grant: 788,000	In-kind co-financing was seen to decrease due to the lack of expertise at the municipality level. This was compensated by co-financing from the ANME under Government of Tunisia in the row below.
Government of Tunisia	In-kind: 800,000 Grant: 1,000,000	In-kind: 1,360,000 Grant: 6,158,260	State co-financing has increased significantly due to the identification of new projects: NDCs, Adapting Cities to Climate Change, The Renewable Energy-based E-Mobility in Higher Education (REMO).
Banks and Enterprises (ACTIA)	Equity investment and Loan: 7,000,000	Equity investment: 1,813,635	Identification of an investment project for the production in Tunisia of electric vehicle components. Please note that only part of the amount of the ACTIA letter (USD 9,480,360) was found relevant to the project and taken into account. We estimate that only USD1,813,635 will cofinance directly the project activities.
	11,000,000	11,000,000	

- c) Project Core Indicators were refined according to the exact pilot demonstrations chosen as captured in the following table:

Project Core Indicators	Expected at Child project Concept note stage	Expected at CEO Endorsement	Comments
-------------------------	--	-----------------------------	----------

6	<b>6.2 Greenhouse Gas Emissions Mitigated</b> (metric tons of CO2e)	Direct: 104,328 tCO2eq  Direct secondary: 360,502 tCO2eq  Indirect: 2,324,153 tCO2eq Total:	Direct: 6,816 tCO2eq  Direct secondary: 1,532,018 tCO2eq  Indirect: 3,581,071 tCO2eq Total: 5,119,905 tCO2eq	The overall impact is higher than originally estimated.  See GHG emissions mitigation annex for more details on 6.2 and 6.3.  6.4: - 28kWp power plant to supply the Sfax municipality fleet  - 195kWp power plant to supply electric taxis in Djerba.
	<b>6.3 Energy saved</b>		41 406 175 319 MJ	
	<b>6.4 Increase in installed RE capacity per technology</b>		0.22 MW	
11	Number of <b>direct beneficiaries disaggregated by gender</b> as co-benefit of GEF investment	Women: 51,000  Men: 50,000  Total: 101,000	Women: 57,590  Men: 47,590  Total: 104,820	The overall impact is very close to originally estimated. It is higher for women, because feedbacks from bike rental companies are that bike rental is more used by women.

1a. *Project Description.*

**Executive Summary**

-

The impact on climate change as well as oil depletion imply to implement major shifts in the transportation sector at global scale. With Tunisia's transport sector accounting for around a third of the national GHG emissions, a potential shift towards e-mobility has the potential of significantly reducing GHG emissions. In addition, mobility is also a great challenge in Tunisia because access to good transportation conditions is difficult, and because of city air pollution, traffic jams and safety issues. In this framework, developing alternative way of transportation than cars, and developing electric mobility is important to reduce transportation issues. Tunisia also suffers of financial weaknesses, exacerbated by the COVID crisis, and needs supports to ensure green recovery from the pandemic.

The project's goal is to trigger and accelerate the uptake of electric mobility solutions in Tunisia, through both capacity development and specific demonstrations, focusing in addition on the integration of renewable energy and electric mobility.

It includes the following components:

? Component 1: Institutionalization of low-carbon electric mobility through capacity building and support for the implementation of the National Transport Master Plan

? Component 2: Demonstration of low-carbon e-mobility solutions in select cities, with a renewable energy component present.

? Component 3: Preparing for scale-up and replication for long-term sustainability of low-carbon electric mobility, as the pilot demonstrations are effectively showcased within the Global Electric Mobility Programme, resulting in new e-mobility investments

? Component 4: Monitoring and Evaluation of the project in line with UNIDO's, GEF's, and Tunisia's requirements.

Component 1 aims to build up a national strategy on e-mobility, and to prepare regulation to improve the legal framework for low carbon emission vehicles. In the frame of component 2, pilot demonstration will be implemented in three Tunisian territories: the city of Sfax, the city of Bizerte and the three cities of Djerba island. Component 3 aims to enforce actors' capacity to scale-up electric mobility in the country. As per GEF and UNIDO guidelines, a mid-term review (MTR) at the end of the third year of implementation and an independent terminal evaluation will be conducted at the conclusion of the project to collect best practices and lessons learnt for future projects (Component 4).

While some electric mobility initiatives have already been implemented in Tunisia (concerning primarily public transportation), and though its potential impact has been recognized, the regulatory landscape remains uncertain. The national transportation masterplan for 2040 focuses primarily on roads and infrastructure, and there is yet to be a high-level detailed framework for electric mobility implementation.

Three communities - Sfax, Djerba, and Bizerte - have been identified in consultation with relevant ministries as sites for pilot projects, with the potential to replicate and scale-up the results of the demonstrations on a larger, national level. For these localities, pilot projects will be selected among electric vehicles in the municipal vehicle fleet, the development of electric bikes rental stations and electric charging stations, and the facilitation of electric taxi purchases. As such, financial requirements will be addressed to overcome the barriers for investment flows, to replicate successful projects in other cities and communities.

The project also aims to develop the national framework, through establishing a National Electric mobility Coordination Unit, as well as reviewing and strengthening the existing regulatory and policy instruments for EV deployment and integration with the grid; a national strategy for electric mobility will be drafted, taking into account its impact on climate change.

In replicating the experience with Sfax, Djerba, and Bizerte, events and targeted training programmes will be held in four cities, and project counterparts will also take part in the Global Electric Mobility

Programme events. With monitoring and evaluation conducted to ensure successful implementation and learnings from the pilot demonstrations, this project can be a significant boost in pioneering electric mobility solutions in Tunisia, providing both conceptual framework and real-life data to serve as a ground for further development.

1) **The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)**

*The global problem of fossil-fuel based transportation*

Globally, the transport sector is the fastest growing contributor to climate emissions, accounting for 23% of global carbon dioxide emissions in 2010 (IPCC, 2014). The global vehicle fleet is set to double by 2050, and almost all this growth will take place in low- and middle-income countries. By 2050, two out of three cars will be found in developing countries. The main drivers of global transport energy growth are land transport (mostly light-duty vehicles such as cars) and increasing demand for freight transport due to globalization.

Urban transport is a strategic area for introducing sustainable e-transport, both for private vehicle owners and for high occupancy vehicles such as shuttles, jitneys, vans, and buses. 55% of the world's population currently lives in cities and by 2050 it is expected that 68% of the world's population will be in urban dwellings. Urban areas account for almost 3/4 of the world's energy consumption and around 70% of global energy-related carbon emissions. Within this, urban freight logistics and mobility are responsible for 25% of transport related emissions and 30 to 50% of other transport related pollutants.

*General urban transport root causes and barriers*

For many countries in the world, the mobility question poses a significant challenge to development as well as for addressing climate change and health issues. Transport of goods and people is a prerequisite for a prospering economy. The urban transport infrastructure is therefore a highly important and influencing aspect for innovation and productivity while triggering economic, environmental and social benefits. However, this has at the same time also negative environmental and health impacts, especially in urban areas. By 2050, global transport of goods and passengers will double because of fast-growing populations and emerging economies. The air pollution that would come along with this development will have strong negative impact on inhabitants of cities, as today globally already almost 185,000 people die annually as a direct cause from vehicle emissions. Therefore, significant investments are required in order to establish a low-carbon, clean and sustainable transport infrastructure that increases productivity and capacity at the same time. Electric mobility in connection with renewable energy production seems to be a promising option, to counteract the above-mentioned aspects. Shaping future urban freight and managing local supply chains in a more environmentally friendly way, will be an important step towards achieving a more sustainable development in cities. Municipalities and its corporations must be able to access financing at scale to implement climate-smart development plans. However, very few developing world cities have access to global capital markets. According to a

World Bank estimate, of the 500 largest cities in the world, only about 4 % in international markets, and 20 % in local markets are currently credit-worthy[1]<sup>1</sup>.

Urban transport challenges at a glance:

- ? Cities facing huge increase in transportation and urban freight leading to: air pollution, congestion, noise pollution
- ? Access to sustainable and resilient transportation
- ? Continued growth in numbers of commuters
- ? High dependency on fossil fuels
- ? Aging transport vehicles, low fuel efficiency
- ? Need for innovative policy schemes for EV-RE integration in urban freight transport
- ? Need for traffic management methods
- ? Access to municipal financing

#### *Climate action and pandemic recovery*

The Intergovernmental Panel on Climate Change (IPCC), stated that to maintain a target of 1.5 °C all vehicles added to the global fleet need to be electric from 2035 onwards, resulting in a complete switch to electric fleets by 2050. At UNFCCC COP21, a group of countries adopted the Paris Declaration on Electro-mobility and Climate Change which calls for 100 million electric cars and 400 million electric two and three wheelers by 2030. Moreover, climate action is included in the 2030 Agenda for Sustainable Development as a stand-alone Sustainable Development Goal (SDG), SDG 13, which provides a roadmap to reduce emissions and build climate resilience. The IEA has developed several scenarios for the contribution of the introduction of electric mobility to achieving global climate targets. In addition, the United Nations Environment Assembly, at its fourth session in March 2019, adopted the first ever UN sustainable mobility resolution that calls on all countries to switch to sustainable mobility, including electric mobility. A shift to a zero-emissions transport sector requires the combination of three key actions: (i) reducing travel demand; (ii) shifting to energy-efficient transport modes, such as public transport; and (iii) introducing zero-emission vehicles. In addition to climate change mitigation, such measures would generate co-benefits such as improved air quality, reduced noise pollution, reduced fossil fuel dependency, and reduced transportation costs. It is estimated that in 2020 EVs saved more than 50 Mt CO<sub>2</sub>eq of GHG emissions globally, equivalent to the entire energy sector emitted in Hungary in 2019[2]<sup>2</sup>. This shows how big is the potential of EVs considering the current stock share of EVs is only 1% of the global stock.

Furthermore, the COVID-19 pandemic has been severely affecting people's lives and health. To help with the recovery, a coalition with different UN Agencies on Environment and Climate Change[3]<sup>3</sup> formulated a set of recommendations for pathways for a more inclusive, environmentally friendly, sustainable, and resilient recovery from the pandemic, supporting a 'building back better' approach or in other words, a green recovery. The proposed measures include promoting low-carbon urban transport modes, shifting to sustainable travel means, electrification and improving vehicles fuel efficiency. Furthermore, recommended actions point out to sustainable tourism, such as to support domestic tourism with actions that have minimum negative impact on environment and promoting the shift towards carbon neutrality and increase resilience to the impacts of climate change.

---

### *The shift to electric mobility*

To meet the objectives of the Paris Agreement and the 2030 Agenda for Sustainable Development, direct transport emissions must decrease by over 9 % by 2030. To achieve such a fall will require urgent action to improve public transport, scale up non-motorized transport and put cleaner, more efficient modes of transport on the roads.

There is a potential to increase the share of electric cars on the roads, through incorporating the incentives as part of the COVID 19 economic recovery packages since EVs can support meeting strategic objectives such as reducing dependency on imported fuel (i.e., oil), more efficient use of energy and significant CO2 reduction potential[4]<sup>4</sup>.

Electric vehicles (EVs) are efficient, low-carbon, quiet and have the potential to improve grid reliability, making them a crucial part of global efforts to cut fossil fuel dependency, improve air quality and decarbonize the economy. The shift to electric mobility will contribute directly to achieve progress on SDG 13 on climate action, SDG 3 on good health and well-being due to improved urban air quality, SDG 7 on affordable and clean energy due to renewable energy integration, SDG 11 on sustainable cities and communities as well as SDG 5 on gender equality and women's empowerment.

The investment in infrastructure and technology required to build an enabling ecosystem for e-mobility will also provide new green jobs, business opportunities, improved access to services and scope for technological innovation, which will contribute to progress on a wider range of development goals including poverty reduction, decent work, industry and sustainable cities.

### ***Overview of environmental problems Tunisia***

Tunisia is a middle-income country in North Africa with a population of 11.5 million people. It is currently within a transition of democratization and integration with the regional and global economy. While poverty and inequality have decreased in recent years, Tunisia still struggles with unemployment and low labour market participation, particularly for women and young professionals. In the past few decades Tunisia has seen a large growth in urbanization, with more than two thirds of its population now living in cities and towns.

In addition to its mitigation challenges, Tunisia faces climate risk to multiple aspects of its society, economy, and ecosystems. Most prominently, existing water security challenges will be exacerbated by decreasing precipitation, increased evapotranspiration, and the increased frequency and severity of droughts. Tunisia's coastlines are threatened by coastal erosion, flooding, and sea level rise. These climate impacts will negatively affect agriculture, infrastructure, tourism, health, and natural resource governance[5]<sup>5</sup>.

### *Root causes of emissions increase in Tunisia*

Tunisia is undergoing a process, initiated in the beginning of the 1990s, of integrating its economy into the regional and global systems. Over the last 30 years, Tunisia has witnessed a strong urban growth. More than two-thirds of its population currently lives in towns and cities. However, urban expansion has predominantly taken place on the outskirts of urban centers. The urbanization and population are

---

steadily increasing, which is resulting in high level of unemployment, a growing number of emitters and an increasing demand for urban transportation. Indeed, the car registrations has been multiplied by 1000 since 1995 and household's expenses concerning mobility more than doubled in 2002. About 27% of the households were motorized in 2014, compared to 10% in 1984. This is resulting in the increase of fuel use, for which transportations account for 35% of final energy and 55% of fuel products. Moreover, not only has the total final consumption in the transport sector grown in absolute terms, but it has also moved up when compared to other sectors' consumption. Historically tracking behind industrial and residential consumption, the transport sector overtook them in 2010 and has remained the primary consumer of energy for most of the period since then.

In the process of development and urbanization, Tunisia's GHG emissions grew 73% between 1990-2011 with electricity production and transportation accounting for the largest shares. GHG emission of Tunisia in 2012 were of 46.6MTCO<sub>2</sub>eq, including 5.6MTCO<sub>2</sub>eq for terrestrial transport.

As such, to contribute to global mitigation efforts, Tunisia has committed to a 41% reduction in carbon intensity compared to 2010 levels. In the energy sector, the primary contributor to emissions, it aims to reduce carbon intensity by 46 per cent compared to 2010 levels. To accomplish this goal, primary energy demand should decrease by 30 percent by 2030[6]<sup>6</sup>.

Tunisian cities are beyond the most polluted in Africa, and transport is one of the main issues. Cities like Bizerte and Sfax are highly affected by air pollution: between 2004 and 2016, more than nine days out of ten were beyond World Health Organization limits for fine particles in Sfax, three days out of 4 in Bizerte.[7]<sup>7</sup>

#### *Barriers to a low-emissions transport system in Tunisia*

The transformation of Tunisia's transportation system requires introducing low-emissions vehicles and constructing grid infrastructure for vehicle charging. While the introduction of electric mobility to Tunisia's transport system can help reduce emissions from fuel use, its grid relies heavily on oil and gas resources ? only 3% of grid capacity is supplied through renewable energy.[8]<sup>8</sup> Thus, the challenge of rolling out electric mobility infrastructure must be pursued simultaneously with the shift toward renewable energy use in the grid.

Moreover, threats to infrastructure due to climate impacts such as flooding may also impact transportation, which will be detrimental to human mobility and to the transport of goods.

Tourism plays an important, undervalued role in sustainable development, especially by policy-makers. As global tourism increases, carbon-neutral fuels will need to be put in place to circumvent the resulting transport emissions.

#### *Barriers to e-mobility adoption that the project seeks to address*

**a) Lack of infrastructure.** The infrastructure for electric mobility in Tunisia remains largely underdeveloped. There are very few charging points, and high capital costs are one of the barriers in developing the infrastructure. The Government envisions the adoption of electric mobility in separate

---



stages, by engaging firstly the big players, such as taxi companies and public buses. These will serve as a starting point for the development of charging infrastructure, leading in turn to higher adoption among the general population.[9]<sup>9</sup> At the moment, there are only two projects for twenty stations, part of them being fast chargers. There is no precise planning or national deployment strategy, either. Standardization of charging stations at the early stages of implementation can ensure higher cost efficiency, though fiscal incentives may be needed to ensure economic viability of infrastructure development at the current stage.

**b) High upfront costs.** Driven by battery costs, the price of electric vehicles makes it an unattractive option when combined with the lack of charging infrastructure even though EVs have lower total cost of ownership (please see Theory of Change - ToC). Custom taxes on electric vehicles have been reduced to zero very recently (finance law 2022), which will reduce the gap for large and powerful vehicles which already have low custom taxes. At the same time, local manufacturers pay significant taxes for products that are not built locally, which higher their costs[10]<sup>10</sup>. The two factors resulted in the market waiting for EV to be fully greenlighted in Tunisia, with first private vehicles making their entry only in 2020.[11]<sup>11</sup>

As for example, there is no differentiation in the battery class: Lead batterie, Lithium batterie and Lithium cells are all in the same class with a high rate because it is assumed that there is local manufacturing. In fact, only Lead battery are made today in Tunisia, so local electric vehicles manufacturers pay a high rate for batteries.

**c) Lack of strategy and investment in the transportation sector in general.** The Ministry of Transport, as well as public transport companies, have a very low investment capacity. Few efforts are made in the transformation of the transportation sector to comply with environmental and safety issues. Conventional cars are still considered as the main mean of transportation, whereas less than the half of household own a car in Tunisia. In additional, transformations require a coordination between several Ministries.

**d) Lack of political stability.** Ministers remain in place less than a year on average since 2011, which make more complicated long-term program or strategy.

**e) Lack of developed coherent framework for EV adoption.** While the development of electric mobility in Tunisia has been suggested for a while, it is only recently that programs and benchmarks have been put forward by the Government,[12]<sup>12</sup> with a task force having been created within ANME to coordinate the efforts. The lack of local expertise on EV charging infrastructure, as well as EV policy in general, has been one of the factors deterring national framework development. For example, no standard is defined for cars electric plugs.

**f) Low price gap in energy cost.** Domestic electricity prices are expensive for big consumers (such as EV consumers), without advantage for electric car owners, when fuel prices at the pump are rather

---

subsidized than taxed. In addition, many of the drivers who drive a lot switch to gas as a fuel, which represent an additional competitor to electricity.

**g) Lack of awareness of electric mobility.** In a study that focused on social acceptance of alternative mobility systems in Tunis, when asked if the respondents consider electric, hybrid and/or natural gas vehicles to be a present topic in Tunisia, most people picked natural gas (45%), followed by electric (19%) and hybrid (10%) vehicles.[13]<sup>13</sup> The study suggests that these results can also be explained by the presence of large natural gas reserves in Tunisia and already realized projects with individual taxis and buses. It also notes that hybrid mobility does not seem to be well known among the respondents. These trends are likely indicative of the rest of the country. Indeed, Tunis, being the capital, is likely more aware of these topics.

**h) Low rate of renewable energy in the electricity mix.** The low rate of renewable energies strongly reduces the mitigation potential of GHG emission of electric mobility. This may also reduce e-mobility adoption itself.

## 2) The baseline scenario and any associated baseline projects

The country experienced higher rates of economic growth in the early 2000s, though it has gradually slowed down since 2010. The unemployment rate remains relatively high at around 16%. Tunisia's location at the south of Mediterranean Sea, in proximity to many European economies, makes it a valuable player in the regional supply chains, not in the least in the electronics and automobile manufacturing.

The national electricity consumption is expected to double by 2035, at an annual growth rate of 5%.[14]<sup>14</sup> Tunisia's high reliance on imported fossil fuels to meet its growing energy demand is one of the challenges facing the country, whilst keeping the costs at a reasonable level.

The Nawara Gas Project is one of the ways Tunisia tackles the aforementioned challenge. A facility at the site of Nawara with a daily processing capacity of 2.7 million cubic meters will be connected to a gas treatment plant in Gabes, with 370 km long gas pipeline. Mobilizing the local gas reserves, it aims to meet 11% of national gas consumption over the project's lifetime, though the recent drops in oil prices and social unrest in the south are likely to result in delays and higher costs.[15]<sup>15</sup> While the Nawara project will reduce the reliance on imports, the Government has also launched a national plan to develop renewables, in order to reduce the reliance on fossil fuels in its power generation. By 2030, Tunisia aims to have 30% of its power generation provided by renewables, with an overall capacity of over 2 GWs to be installed.[16]<sup>16</sup>

With public transport also aging, the government has launched a national transportation plan for 2040, aiming to revitalize the infrastructure with an emphasis on the countrywide railroad systems.[17]<sup>17</sup> The

---

cities of Tunis and Sfax, with their own urban rail transportation, are launching their own projects aiming to expand and rehabilitate their light rail networks.[18]<sup>18</sup> The master plan envisions an extensive diagnosis and study of future scenarios as the first stage of its implementation, especially since the last time such study was undertaken was in 2004.[19]<sup>19</sup>

**Organization of transport in Tunisia**

Six (6) Ministries are involved in the planning and operation of road and rail transport. The Regional Authorities for Land Transport have not been set up. As a result of the current organization, no institution is responsible for defining and monitoring the implementation of the urban travel strategy at the agglomeration level as well as for managing and organizing urban transport as a whole (see Figure 1).

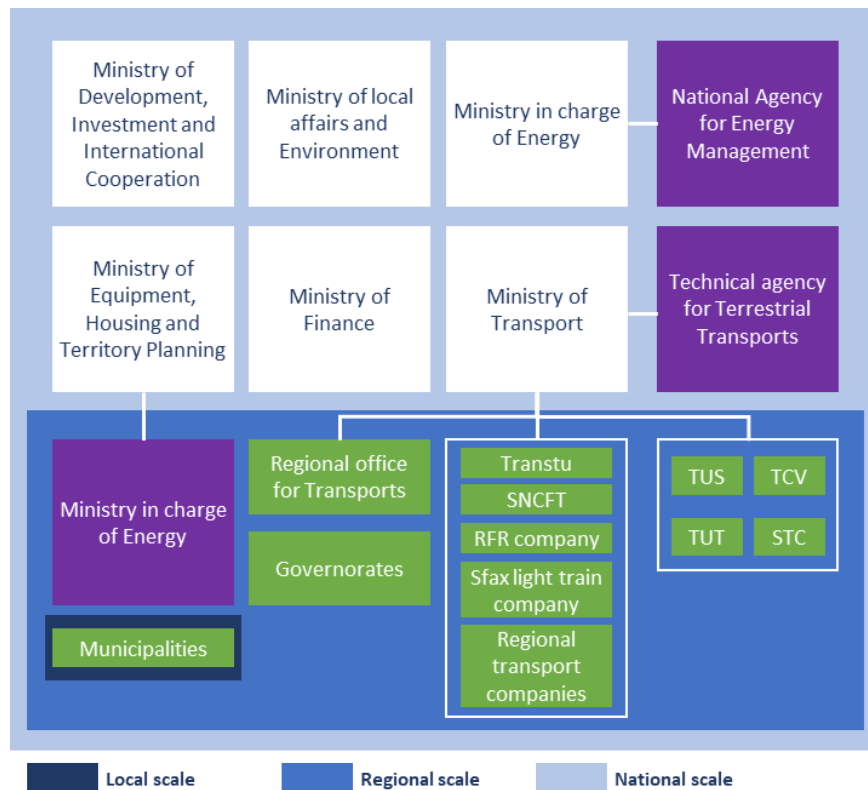


Figure 1: Mapping of the transport sector (AFD, Tunisian Ministry of Transport, CODATU, July 2018, translation UNIDO)

**Infrastructure**

The road infrastructure is provided by the General Directorate of Bridges and Roads (DGPC) attached to MEHAT which devotes about USD282,000,000 (800 million DT) per year on average to the

modernization and rehabilitation of roads. It stretches over 19,750 km, of which nearly 65% are paved and 570 km are motorways.

The rail infrastructure is a state property; however, its operation is provided by SNCFT and TRANSTU. SNCFT operates a majority of the national rail infrastructure. TRANSTU, on the other hand, is only present in urban areas.

The port and maritime transport sector is placed under the aegis of the Ministry of Transport. Tunisian commercial seaports are managed by the Office de la Marine Marchande et des Ports (OMMP) which plays both the role of maritime authority and also of port authority. Eight (8) commercial ports open to international traffic spread over all the coastal areas which provide 98% of foreign trade is carried out by sea, in Tunisia.

Air transport is under the supervision of the Ministry of Transport. The management of air navigation in Tunisian airspace, the airworthiness of aircraft and aeronautical personnel and the operation of airports are provided by the OACA. Among the international airports, seven are managed by the OACA and two (Enfidha and Monastir) are granted for 40 years to a Turkish company.

### ***Transport operators***

Public transport is provided by public transport companies and by private operators who have concluded a concession agreement with the State in urban and interurban areas.

Rail common transport (CT) is provided mainly by TRANSTU in urban areas and SNCFT in interurban areas, while road CT is provided by individual and collective taxis, regional bus operating companies and rental companies.

Only 30% of all interurban road journeys are made by mass public transport, 49% of which is provided by collective taxis, 37% by buses and 17% by rail transport 14%<sup>[20]</sup>.

### ***Pricing and services***

The state decides on the prices charged by public operators and has not changed them since 2010. Private operators, who can make price adjustments, find themselves constrained in their margins for increase. E-mobile taxi service applications have emerged since 2016, however this is limited to taxi services and for some SNCFT rail lines.

### ***Consumer incentives***

Electric cars are not subject to import or custom tax since January 2022 (finance law 2022). Hybrid cars (including rechargeable ones) have a 50% reduction in import tax compared to fuel cars.<sup>[21]</sup><sup>21</sup> The law n° 2005-82 of August 15, 2005 relating to the creation of energy management systems envisages two types of tax. The first tax is applied upon the registration of the car, depending on the fuel used (gasoline or diesel) and of the power of the cylinder. This tax varies from 250 DT to 1000 DT (90 to 360USD) for the gasoline cars and from 500DT to 2000 DT (180 to 720USD) for diesel cars. The second tax concerns the devices for the air conditioning, at a rate of 10DT (3.6USD) for each 1000 thermal units. A tax on the lamps and tubes with the importation or the local production was by added

---

by the modification of the article 13 of the law n° 2005-0106 of December 19, 2005 carrying law of finances for year 2006. Article 74 of the investment code stipulates that income or profits reinvested in the subscription to the initial capital or its increase of companies making investments allowing the development of technology or its management and innovation investments in all economic sectors are fully deductible and within the limit of the income or profit subject to tax, and this, with the exception of investments in the financial sector and the energy sectors, other than renewable energies, mining, real estate development, consumption on site, trade and telecommunication operators measures and benefits for investments that enable the development of technology or its mastery and innovation investments in all economic sectors. These measures should concern the introduction of clean technologies and eco-innovation.

The current incentive exists only on the purchase of imported hybrid cars. The reduction of the import tax by 30% compared to fuel cars is not sufficient, especially for small cars where the price difference between the fuel and hybrid model is important.

***Existing national policies: Environmental laws and regulations on transport and low carbon urban development***

Environment and climate:

In 2014, Tunisia became the third country in the world to incorporate the need to protect against climate change in its constitution. Tunisia's strategy on sustainable development, along with the strategy on climate change, and the strategy on green economy, forms the three pillars for the country to achieve its contribution towards Agenda 2030. Tunisia is a Party to the UNFCCC and the Convention on Biological Diversity (CBD), is signatory to the Paris Agreement, and has been recently active at the UNFCCC's COP24. This support for global environmental conventions has translated into national policy and a vision for urban development in Tunisia. As reflected in the National Strategy on Climate Change (NSCC) that addresses both adaptation and mitigation, Tunisia targets reducing the carbon intensity of the economy up to 60% in 2040 compared to 2009 levels. This includes energy efficiency policies and measures that should contribute to a decrease of the carbon intensity of 2-3% per year.

The project fits into the national strategies on sustainable development, climate change and transition to a green economy through its objectives of contributing to the reduction of gas emissions, promoting clean technologies and the use of renewable energy. It is also consistent with the national program Sustainable Cities 2050, and Support to Cities for Adaptation to Climate Change. Both are part of Tunisia's development plans.

The country's 'Sustainable Cities 2050' strategic program addresses the urban environment with common operational objectives for all cities in Tunisia:

- ? Carbon neutrality by 2050
- ? Sustainable urban mobility program
- ? Management program for risks related to extreme events
- ? Social and urban integration

? Decongestion of the city and its openness to its national, regional and international environment

? An economic cachet highlighting the specificities of the city (industrial, tourism, technology, ITC, etc.)

? An urban and landscape approach that incorporates the architectural, environment, social and economic dimensions.

Law n° 2017-26 on air quality sets limit values for emissions of polluting gases for all sources, including mobile sources. The electric car will improve air quality in cities and thus the well-being of citizens.

#### Renewable energies:

Moreover, several texts govern energy management and the promotion of renewable energies:

- Law n° 2005-82 on the creation of an energy management system

- Law n° 2009-7 of 9 February 2009: modifying and completing law n° 2004-72 of 2 August 2004, relating to energy management

- Law n° 85-48 of 25 April 1985, encouraging research, production and marketing of renewable energy

- Law 2015-12 of 11 May 2015, modified by the law 47-2019 of 29 May 2019, and related decrees and decisions, organizing the development of large project of electricity production with renewable energies with the creation of three regimes for projects, and the definition of validation processes. Related decrees: 2016-1123, modified by 105-2020 (25/02/2020), Decisions of the 09/02/2017, 30/08/2018, 28/05/2020, 27/05/2020.

The national strategy "Tunisian Solar Plan" plans an investment of 4 billion Dinars (EUR 1,4bn; USD 1,6bn) between 2014 and 2030, to generate 30% of energy from renewable sources, such as PV, wind and CSP.

#### Transportation:

- Joint decree of the Ministry of Industry, Energy and Small and Medium-sized Enterprises and the Ministry of Transport of August 10, 2007, bearing approval of the schedule of conditions relating to the organization of the exercise of the activity of the diagnosis of the engines of the automobiles whose total authorized weight in load does not exceed the 3500 kg and the number of seats does not exceed 9 including the seat of the driver in the private sector

In addition, the National Transport Plan 2040 aims in its action 8 to promote electric and hybrid vehicles.

A table summarizing the baseline policies can be found in the Consistency with National Priorities section.

*Situation in the Municipalities targeted by the project: Sfax, Djerba and Bizerte*

**Djerba** is Tunisia's and North Africa biggest island. In 2014, its population was estimated at 163,726 inhabitants. It is located in the Gulf of Gab's, off the coast of Tunisia, and is highly dependent on the tourism industry with 136 hotels on the island totaling 50,000 beds. Energy consumption has been growing at 6% per annum ? a growth attributed to the tourism industry. Djerba has 3 municipalities Houmt Souk with 75 904 inhabitants (2014), a historic hub and an attraction for tourist. Midoun with 63528 inhabitants (2014), the touristic hub and Ajim, the smallest municipality with 24 292 inhabitants, known as an entry point from Jurf el Qantara.

The island of Djerba was flagged in the SNC as a national climate change ??hotspot?? on account of water scarcity, fragile resource base (including limited and depleting groundwater), high vulnerability to coastal submersion and erosion, high reliance on vulnerable tourism activities and important planned infrastructure investments.

The communities of Djerba in collaboration with ANME and UNDP launched the development of an urban mobility plan to identify the gaps and suggest solution to reduce the carbon footprint of the transportation sector on the island. Moreover, the civic society of the island started a new initiative to develop a green Djerba Label to encourage the adoption of energy efficiency measures, renewable energy integration and encourage soft mobility development on the island.

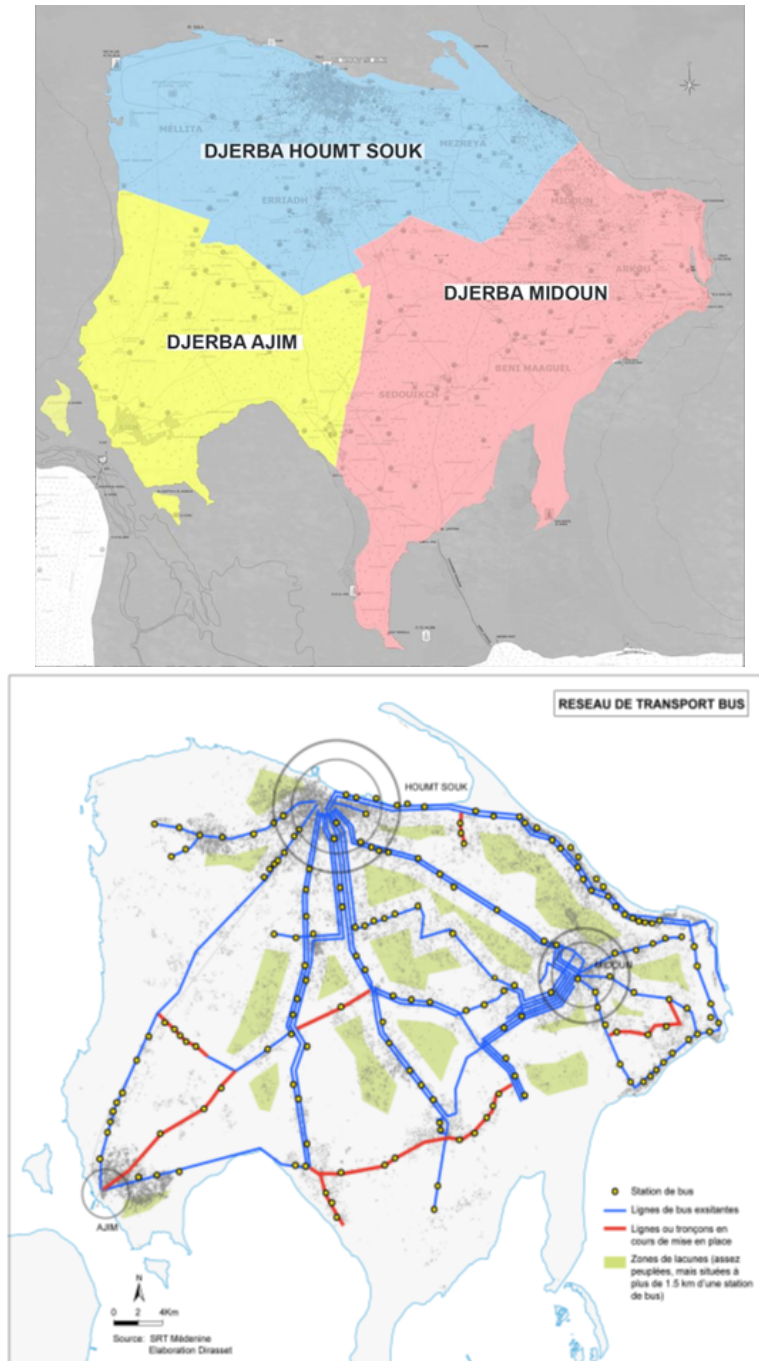


Figure 2: Djerba Island Municipalities (Left) and Djerba's Bus Routes (Right)

**Bizerte** is a medium sized city in Tunisia which is located approximately 60 kilometres north from the capital Tunis and is a historically grown important hub for trade for Tunisia, as the city has access to the Mediterranean Sea through its ports. In 2014, its population was estimated at 142,966 inhabitants. It is facing a range of various challenges from urban planning and land management perspective among which land degradation, biodiversity loss, congestion, high dependency on fossil fuels for



transportation causing high carbon emission and air pollution. Bizerte vulnerability in terms of climate change lies in coastal submersion and erosion, stronger precipitation events resulting in flash flooding and an increase in wildfires.

The municipality of Bizerte started 'Bizerte Smart City' initiative, represented in the figure below, in cooperation with the local authorities, the private sector, and the civil society to support its green growth from energy, building and housing, water, and mobility management. The city is part of also part of Medcities, a network gathering Mediterranean, which helps to empower local governments to achieve strategic goals and knowledge sharing. An urban master plan 'schéma directeur des aménagements urbain' was prepared in 2015 and a review of the urban development plan 'le plan d'aménagement urbain' of 2009 is currently ongoing. Moreover, the municipality started energy audits of cars, buildings, and lighting of the city. It is participating to a KFW program to purchase 20 electric bus and 100 electric taxis.

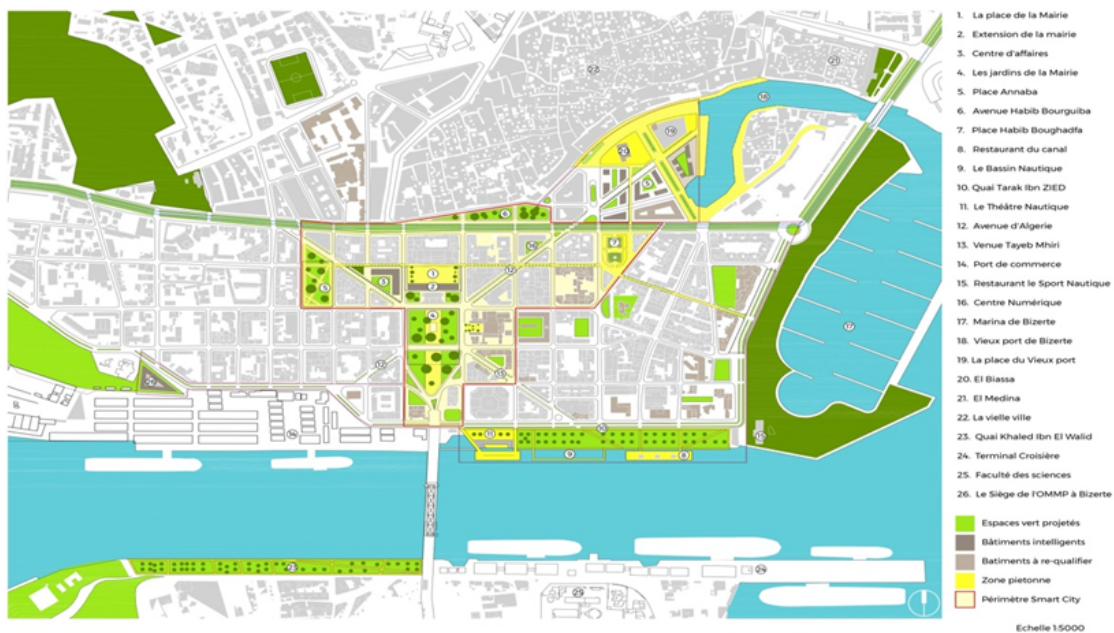


Figure 3: Bizerte Smart city area

Bizerte is highly affected by air pollution: between 2004 and 2016, three days out of 4 in Bizerte were beyond World Health Organization limits for fine particles (before reduction of limits in September 2021)[22]<sup>22</sup>.

**Sfax** is Tunisia's major port and second largest city. The growth of the city has been rapid, it currently has a population of about 400,000 inhabitants. Sfax is located on the country's east coast about 270 km from the capital Tunis. Greater Sfax consists of the port area, the industrial zones located in the littoral corridor, north and south of the port, the traditional quarter or Medina followed to the west by pockets of densely populated slums, and more recent residential developments (see Figure 4).

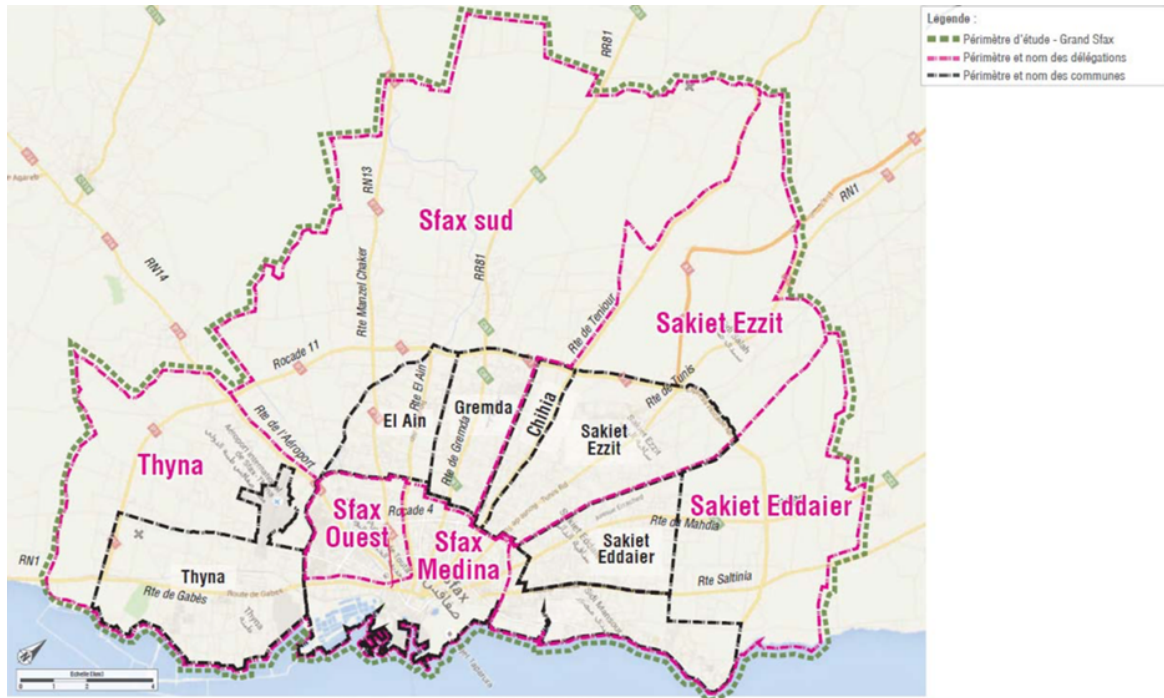


Figure 4: Greater Sfax map

Since 1960s commercial and industrial development of Sfax had been polluting the coastal area with solid and liquid wastes. This pervasive pollution is preventing the development of tourism activities along the shores, causing biodiversity losses, and causing health problems. Like most cities in the MENA region, the city of Sfax is facing a set of various challenges, among them congestion within the borders of the city in combination with high dependency on fossil fuels in the transportation sector causing high CO<sub>2</sub> emissions and severe air pollution: between 2004 and 2016, more than 9 days out of ten were beyond World Health Organization limits for fine particles (before reduction of limits in September 2021).

The greenhouse gases emission inventory, performed for 2010, show that transport is responsible for a high rate of the global warming impact of the urban area (see Figure 5).

An urban mobility plan for Greater Sfax, co-financed by the City of Sfax, the ANME and the GIZ, was prepared in 2016 which was incorporated in the NAMA. Developed scenarios aimed to structure the deployment of an efficient and integrated public transport system and propose useful measures to fight against the saturation of traffic routes encouraging soft and electric mobility.

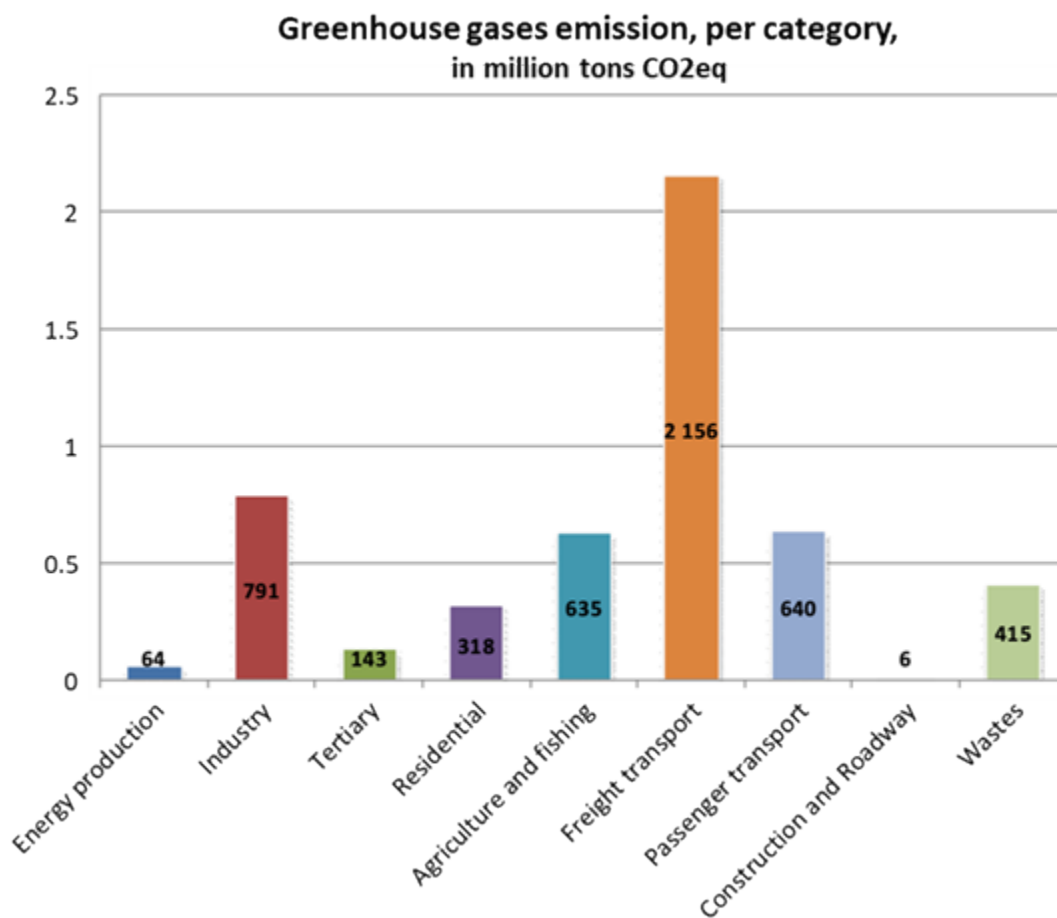


Figure 5: Greater Sfax GHG emissions by category

**3) The proposed alternative scenario with a brief description of expected outcomes and components of the project.**

The impact on climate change as well as oil depletion imply to implement major shifts in the transportation sector at global scale. In Tunisia, mobility is also a great challenge because access to good transportation conditions is difficult, and because of city air pollution, traffic jams and safety issues. In this framework, developing alternative way of transportation than cars, and developing electric mobility is important to reduce transportation issues.

The project will focus on mobility and connectivity in Tunisia and will put the country on a path towards low-carbon transportation infrastructure development, thus mitigating climate change impact and improving urban air quality and public health. During the PPG stage, a detailed needs assessment was conducted in Sfax, Bizerte and Djerba and different sustainability infrastructures were considered in accordance with municipalities strategies and means.

The project aims to develop significantly electric mobility. It includes the following components:

- Component 1: Institutionalization of low-carbon electric mobility
- Component 2: Demonstration of low-carbon e-mobility solutions

- Component 3: Preparing for scale-up and replication for long-term sustainability of low-carbon electric mobility
- Component 4: Monitoring and Evaluation

Under Component 1, the project will reinforce the existing initiatives and built-up national works: a national strategy on electric vehicles will be developed, and new policies will be prepared. Enabling policies and regulatory framework for the adoption of electric vehicles (EVs) with renewable energy and for the importation of used e-vehicles, strengthening institutional capacity, and enhancing awareness will catalyze and accelerate widespread use of EVs in Tunisia resulting in GHG reductions, local manufacturing, job and income creation and environmental improvements such as improvement in air quality.

In the frame of component 2, pilot demonstration will be implemented in three Tunisian territories: the city of Sfax, the city of Bizerte and the three cities of Djerba island. Component 3 aims to enforce actors' capacity to scale-up electric mobility in the country. As per GEF and UNIDO guidelines, a mid-term review (MTR) at the end of the third year of implementation and an independent terminal evaluation will be conducted at the conclusion of the project to collect best practices and lessons learnt for future projects (Component 4).

The project will focus on Sfax, Bizerte and Djerba at first but aims to share the experiences with other cities in the country to support capacity building and scale up of interventions. Exchanging knowledge, experiences and lessons through the establishment of an Electric mobility online information platform will guide and support the replication in the country.

The project will strengthen the interplay between the local economic vision and transit network. In turn, this will result into cities that are greener, more connected, resilient and competitive due to lower transportation and infrastructure costs. Enhanced connectivity and accessibility will provide efficient access to jobs and services, thus boost entrepreneurship and increase market vibrancy around transit stations. Low-carbon transportation infrastructure will mitigate GHG emissions and improve air quality and public health and will also improve accessibility to employment as well as to health services and businesses that will invariably result in economic and social gains. Sfax, Bizerte and Djerba and their transit-oriented sustainable development will become a blueprint for replication around the globe.

In a technical point of view, the project will encourage more sustainable transport through several levers:

- Electrification of existing transportation mode, and first cars, which is now proven as levers of environmental impact reduction, whatever is the electricity source,
- Increasing the share of renewable energies in future electric vehicles, which reduces very significantly the impact of electricity supply to EVs. The RE framework will not be significantly modified by the project, but the project will enforce RE implementation in e-mobility in the strategy, in the legal framework, and also in pilot projects and lesson learnt,
- Developing the most sustainable mean of transportation, since the use of individual cars (EV or not) is the less sustainable mean of transportation.

By addressing barriers to electric mobility, the UNIDO, GEF-financed project will contribute towards achieving the overall objectives of Global electric mobility program including global environmental benefits such as reduced GHG emissions.

**Component 1: Institutionalization of low-carbon electric mobility**

Component 1 aims to build-up a national framework for electric mobility, with activities on three major axes: governance, strategy and regulation. The activities of component 1 will lead to an appropriate framework for the electrification of transport in sustainable condition.

Gender dimensions will be considered under each output with the aim to foster gender equality and women's empowerment. This includes considering gender dimensions in policy reviews and gender experts and groups that promote gender quality and the empowerment of women (GEEW) in policy development.

Details of the component outputs and activities are described below:

<b>Outcome 1: Electric mobility is institutionalized in the policy framework through implementation of the National Transport Master Plan</b>		
<b>Outputs</b>	<b>Activities</b>	<b>Partners involved</b>

<p><b>1.1 National Electric mobility Coordination Unit is established</b></p>	<ul style="list-style-type: none"> <li>? National Electric Mobility Coordination Unit is created and hosted by the ANME</li> <li>? The national stakeholders meet bi-annually (or more frequently depending on needs) to enhance dialogue and coordination and facilitate knowledge exchange between national governmental entities, private sector and civil society on electric transport and renewable energy</li> <li>? National Electric Mobility Coordination Unit members discuss, review and validate the strategy developed under 1.1.2 and the policy drafted under 1.1.3 to be in line with the National Transport Master Plan, Tunisia Solar Plan (TSP), National Strategy on Climate Change, National strategy of transition towards the green economy and other relevant strategies and policies</li> <li>? National Electric Mobility Coordination Unit members are invited to the training workshops and events (virtually and in-person) organized under Component 3</li> <li>? National Electric Mobility Coordination Unit members will disseminate the project deliverables and results within their organization</li> </ul>	<ul style="list-style-type: none"> <li>? National Agency for Energy Management</li> <li>? Ministry of Environment</li> <li>? Ministry of Industry and Small and Medium Enterprises</li> <li>? Ministry of Energy</li> <li>? Ministry of Transport and Logistics</li> <li>? Technical Agency for Land Transport</li> <li>? Ministry of Finance</li> <li>? Ministry of Commerce</li> <li>? Tunisian Electricity and Gas Company,</li> <li>? The customs authorities</li> <li>? Tunisian Union for Industry, Trade and Handicrafts</li> <li>? 2 NGOs (to be selected)</li> </ul>
---	--	---

<p><b>1.2 National strategy on electric mobility and its impact regarding climate change is developed and presented for validation by the concerned Ministries</b></p>	<p>? Multi-stakeholder gender sensitive consultation is implemented and EV-RE landscape in Tunisia is assessed (institutional and regulatory review, financial instruments, stakeholder mapping and engagement, technology overview, challenge, barriers and gap identification and analysis)</p> <p>? Time-based gender sensitive strategy and action plan are developed with strategic recommendations made regarding the uptake of EV-RE and its macroeconomic advantages as well as its benefits to climate change mitigation (potential emission reductions of the recommended measures). Recommendation related to indicator gaps, on the existing institutional framework and capitalizing on potential opportunities will also be included.</p> <p>? Literature review, case studies and global best practice summarized and integrated in the strategy</p> <p>? The National Electric Mobility Plan will be developed thanks to various meetings with stakeholders aiming to include their inputs into the drafts at the different stages of the formulation</p> <p>? The strategy will provide the basis for the policy/regulatory framework to be developed under Output 1.1.3</p> <p>? Strategy should be reviewed and approved by the Electric Mobility Coordination Unit and submitted for adoption to the Government.</p>	<p>? National Agency for Energy Management</p> <p>? Ministry of Environment</p> <p>? Ministry of Industry and Small and Medium Enterprises</p> <p>? Ministry of Energy</p> <p>? Ministry of Transport and Logistics</p> <p>? Technical Agency for Land Transport</p> <p>? Private sector</p> <p>? Local authorities,</p> <p>? NGO (Association Tunisienne de Pr?vention Routi?re, Association Tunisienne de la Protection des Accidents de la Route, ASWAT NISSA, Association Tunisienne des Femmes Ing?nieures)</p>
--	--	--

<p><b>1.3 Existing policy and regulatory frameworks reviewed and strengthened to support the deployment of EV-RE infrastructure: Policy drafted and ready for adoption</b></p>	<p>? Based on the strategy and the macroeconomic study on EV developed by ANME developed under output 1.1.2, identify policy recommendations to support the deployment of EV, the grid integration of EV, as well as local integration of EV manufacturing</p> <p>? Consultation and Validation workshops involving key stakeholders to provide inputs at the different drafting stages</p> <p>? Draft policy or regulatory framework to be submitted to Government for adoption</p>	<p>? National Agency for Energy Management</p> <p>? Ministry of Environment</p> <p>? Ministry of Industry and Small and Medium Enterprises</p> <p>? Ministry of Energy</p> <p>? Ministry of Transport and Logistics</p> <p>? Technical Agency for Land Transport</p>
--	--	--

*Outcome 1.1: Capacity building and support for the implementation of the National Transport Master Plan is provided*

**Output 1.1.1 National Electric mobility Coordination Unit is established**

A National Electric Mobility Coordination Unit (NEMCU) is created at the level of the ANME, and bring together the relevant parties involved in electric mobility. This electric mobility multi-stakeholder working group will gather stakeholders from relevant national agencies to coordinate innovative transport solutions, promote e-mobility, and advance the National Transport Master Plan for 2040 and the National Plan of Urban mobility.

The national plan of urban mobility foresees in its axis 8 on sustainable transport, the development of the electric mobility. The implementation of the electric mobility development policy was assigned to the National Agency of Energy Management and a task force gathering the key actors for the elaboration of an action program to be submitted to the government was set up. This task force, will be institutionalized through the project and members will be and will work in consultation with the national commission of urban mobility in charge of the supervision of the implementation of the national plan of sustainable transport.

The NEMCU composition will be as follows:

- ? National Agency for Energy Management
- ? Ministry of Environment
- ? Ministry of Industry and Small and Medium Enterprises
- ? Ministry of Energy
- ? Ministry of Transport and Logistics
- ? Technical Agency for Land Transport
- ? Ministry of Finance
- ? Ministry of Commerce



- ? Tunisian Electricity and Gas Company,
- ? The customs authorities
- ? Tunisian Union for Industry, Trade and Handicrafts
- ? 2 NGOs (to be selected)

Activity 1.1.1.1	National Electric Mobility Coordination Unit (NEMCU) is created and hosted by the ANME
Activity 1.1.1.2	NEMCU meet bi-annually (or more frequently depending on needs) to enhance dialogue and coordination and facilitate knowledge exchange between key stakeholders
Activity 1.1.1.3	NEMCU members discuss, review and validate the strategy developed under 1.1.2
Activity 1.1.1.4	NEMCU members discuss, review and validate the policy developed under 1.1.3
Activity 1.1.1.5	NEMCU members will disseminate the project deliverables and results within their organization

**Output 1.1.2 National strategy on electric mobility and its impact regarding climate change is developed and presented for validation by the concerned Ministries**

Terms of references will be written to identify a group of consultants that will support the stakeholders to build up a National Electric Mobility Plan. The consultation will integrate the key issues of the project, specifically gender sensitivity and climate change mitigation. The work of the consultants will include a review of the current landscape: National Strategy on Energy Efficiency, regulations, stakeholder mapping, technology review, and any existing challenge or barriers. A literature review and a global benchmark of best practices, state of the art and strategies will also be performed. **Several scenarios will be developed, each including cost-benefits analysis, economic and social impacts, environmental indicators such as GHG emissions.** The National Electric Mobility Plan will be developed thanks to concertation workshops with stakeholders. It will aim to define an action plan to increase the electrification of transports and specifically the mitigation of GHG emissions in transportation. Thus, the use of renewable energies will be addressed. The strategy will include recommendations on measures and guidelines on the environmentally-sound management scenarios of used batteries (e.g., second-life use, recycling, e-waste management). The project will benefit from the knowledge products of the Global Programme's thematic working group on battery life cycle aspects. To ensure that the national strategy/ masterplan/ National Electric Mobility Plan are gender responsive, social and gender dimensions are being considered during their development. This includes conducting gender analysis, collecting gender disaggregated data during data collection, considering gender dimensions in the surveys and interviews and involving gender experts, gender focal points and/or organizations that promote gender equality and women's empowerment. Moreover, women's organizations will be invited to validate the policies from a gender perspective.

The National Electric Mobility Plan will include:

- Time-based target for the electrification of vehicles in Tunisia;
- Percentage of Renewable energy in the electricity delivered to vehicles;
- Cost-benefits analysis
- Socio-economic impacts, including gender equality and women's empowerment
- Greenhouses gases? emission reduction
- Other objective, such as local manufacturing and modal shift;
- Challenge to be addressed to achieve the objectives;
- Indicators for the previously identified targets and issues at stake.

Key stakeholders will be involved throughout the strategy formulation process by providing inputs to various drafting stages. Stakeholders are relevant Ministries, private sector, local authorities, NGO such as ATPR (Association Tunisienne de Pr?vention Routi?re, Association Tunisienne de la Protection des Accidents de la Route, ASWAT NISSA, Association Tunisienne des Femmes Ing?nieures).

Activity 1.1.2.1	Multi-stakeholder gender sensitive consultation is implemented and EV-RE landscape in Tunisia is assessed
Activity 1.1.2.2	Literature review, case studies and global best practice summarized and integrated in the strategy
Activity 1.1.2.3	Time-based gender sensitive strategy and action plan are developed

**Output 1.1.3 Existing policy and regulatory frameworks reviewed and strengthened to support the deployment of EV-RE infrastructure: Policy drafted and ready for adoption**

The legal and administrative barriers will be specifically identified, and new policy will be designed.

The policy should aim to bring a consistent regulatory framework in all or some of the following subjects (non-exhaustive list, other issues may be identified during the project):

- Fiscal and custom incentives for electric mobility, with regard to support of local manufacturing as well as support of sustainable modes of transports (public transports, lighter vehicles, ?)
- Standards for charging infrastructures:
  - ? Plugs
  - ? Other electrical standards
  - ? Communication protocols
- Incentives for the use of renewable energies:
  - ? Incentive to develop new renewable energy capacity

- ? Incentives to use smart charging and to charge during the day (to benefit from PV energy)
- Support to workers for transition from conventional vehicles to electric vehicles
  - ? Training workshops on electric vehicles maintenance
- Battery end of life management

The policy analysis report will include environmental management guidelines to mitigate the potential long-term impacts of the EVs with a focus on integration with renewable energy and end-of-life battery scenarios.

A new policy will be drafted in cooperation with the stakeholders who will provide inputs at the different drafting stages. It will aim to promote GHG emissions reduction consider gender dimensions with the aim to foster gender equality and women's empowerment.

To ensure that the policy is gender responsive, social and gender dimensions are being considered during their development. This includes conducting gender analysis, collecting gender disaggregated data during data collection, considering gender dimensions in the surveys and interviews, and involving gender experts, gender focal points and/or organizations that promote gender equality and women's empowerment. Moreover, women's organizations will be invited to validate the policies from a gender perspective.

The drafted policy will be ready for adoption and submitted to Government.

Activity 1.1.3.1	Identify policy recommendations to support the deployment of EV, the grid integration of EV, as well as local integration of EV manufacturing
Activity 1.1.3.2	Consultation workshops involving key stakeholders
Activity 1.1.3.3	Drafting and validation workshops involving key stakeholders

## **Component 2: Demonstration of low-carbon e-mobility solutions**

Component 2 will aim to provide evidence to local stakeholders, of the technical, financial and environmental viability of low-carbon electric mobility and will strengthen the interplay between their local economic vision and transit network.

This component will address potential barriers for local project implementation. It will address these barriers through feasibility studies, covering technical, economical and organization issues and the implementation of pilot projects of electric vehicles in the communities of Sfax, Bizerte and Djerba island. The pilot projects will consist in the introduction of electric vehicles in the municipality fleet, the development of electric bike rental stations and electric charging stations, and the facilitation of electric taxi purchases.

The pilot projects were defined with concerned municipalities and according to their specific priorities.

A common priority for all those municipalities in terms of local transportation is to develop alternative way of transportation to individual cars, for environmental and traffic management reasons. Yet, their levers of action are very low on public transport, which are operated by regional public of public-

private companies, where municipalities don't have a majority to decide, and where decision processes are very long. In addition, the three municipalities show interest for active mobility such as walking and cycling for a few years, and actively look for projects on such mobilities. Then, the project pilots aim to integrate electric bike services in all municipalities.

The electrification of the municipality fleet (car and 2-wheels) is another priority for the three communities, for which they can contribute with their own financing means (co-financing is ensured). Through the deployment of electric vehicles for their fleet, municipality want to be examples, and increase local stakeholders' acceptance of the technology.

Then, Bizerte and Djerba also want to support electrification of taxis and offer charging stations for electric cars. By supporting the taxi owners to gain confidence in the technology, this component will create more interest to purchase electric vehicles and to build confidence among the public. Indeed, feedback from taxi drivers (who drive a lot) are significant for other users.

Through electric bikes rental stations and e-charging stations, the communities will start to engage in the use of electric vehicles, thus shifting modal distribution towards electric vehicles options.

Some charging stations will be installed together with PV power plant and with smart charging to enhance the use of electricity from solar energy. Thus, the projects will demonstrate EV-RE coupling, without the installation of additional battery to reduce environmental impact and costs.

The component will also generate data to support policymaking and generate experiences and lessons learned for other cities, thus creating confidence and momentum towards a broad electrification of this sector. The demonstrations will be scaled up later on through Component 3.

This project component will be gender responsive. This includes conducting gender analysis and involving gender experts and women organizations to understand the needs and priorities of women in the development of project activities including the planning and design of demonstrations, as well as ensuring that women have equal opportunities to lead, participate in and benefit from all project activities.

Details of the component outputs and activities are described below.

Outcome 2: Potential benefits of sustainable mobility are demonstrated		
Outputs	Activities	Partners involved
<b>2.1 Feasibility studies for EV-RE pilot demonstrations in Bizerte, Sfax and Djerba incl. economic, social and technical aspects (localisation-optimisation research, financial mechanisms and options to support implementation) are developed</b>	<ul style="list-style-type: none"> <li>? Undertake feasibility studies</li> <li>? Elaborate final projects designs and implementation plans, and identify need for associated technical assistance</li> <li>? Provide transaction advisory services for the projects (procurement document preparation support, etc.)</li> <li>? Realization of a scalable e-mobility investment facilitated.</li> </ul>	<ul style="list-style-type: none"> <li>ANME</li> <li>Municipalities</li> <li>Engineering offices</li> <li>Potential operators and co-investors</li> </ul>

<b>2.2 EV-RE pilot demonstrations in Sfax, Bizerte and Djerba are financed and implemented</b>	? Prepare contractors' terms of references for each municipality and each type of project	ANME
	? Implement the pilot projects based on specifications established in feasibility studies under Output 2.1.1	Municipalities
	? Provide training workshop and technical assistance to ensure the durability of the project and the investments	Taxis
	? Monitoring and verification of the pilots: Prepare a report on pilot projects containing results, analysis, and lessons learned	Operators and co-investors

***Outcome 2.1: Potential benefits of sustainable mobility are demonstrated***

*Focusing on the pilot cities of Sfax, Bizerte and Djerba, the project will strengthen the interplay between their local economic vision and transit network.*

**Output 2.1.1 Feasibility studies for EV-RE pilot demonstrations in Bizerte, Sfax and Djerba incl. economic, social and technical aspects (localisation-optimisation research, financial mechanisms and options to support implementation) are developed**

Feasibility (technical, social and financial) studies for each segment of the pilot projects will be realized for each city, followed by the development of the design plans of sustainable mobility infrastructure for Sfax, Bizerte and Djerba island. These studies are led in partnership with the targeted municipalities and co-financiers to secure necessary finance from all co-investors. They will also assess the opinion of local community and recommend ways of enhancing gender equality and promoting women's empowerment in the demonstration pilots. **It will define data to be collected, collection process and indicators to be monitored, to ensure learning and facilitate scale-up.** The studies will also describe potential scale up options for each of the pilots. The following local NGOs are identified and could be consulted during that work:

- ATPR, Association Tunisienne de Pr?vention Routi?re (national and local r?f?rents)
- Association Tunisienne de la Protection des Accidents de la Route (national, possibly local specialist)
- ASWAT NISSA (national, possibly local specialist)
- Association Tunisienne des Femmes Ing?nieures
- ADSS, Association de d?veloppement Solidaire de Sfax
- Sfax Charity

- Association de Djerba pour les Sciences et la Technologie
- Association Bizerte Environment
- Association de Sauvegarde et de Protection du Littoral De Bizerte
- Association pour la Protection de l'Environnement et le Développement Durable de Bizerte
- Bizerte Smart City

Moreover, advisory services for the project's procurement documents will be provided and e-mobility investment facilitated.

Activity 2.1.1.1	Undertake feasibility studies
Activity 2.1.1.2	Elaborate final projects designs and implementation plans, and identify need for associated technical assistance
Activity 2.1.1.3	Provide transaction advisory services for the projects (procurement document preparation support, etc.)
Activity 2.1.1.4	Realization of a scalable e-mobility investment facilitated.

It must be specified that no detailed market study was carried on prices and availabilities of EV and chargers in Tunisia specifically, since the first models are only about to be sold, and these models are SUV and do not correspond to most project needs.

#### **Output 2.1.2 EV-RE pilot demonstrations in Sfax, Bizerte and Djerba are financed and implemented**

Once the pilot projects plans are proven to be financially, environmentally and socially viable based the feasibility studies undertaken under Output 2.1.1, the implementation of these projects is planned to take place within a five-year timeframe, following the detailed schedule accessible in the Work plan annex.

These pilot projects will support the decarbonization of the transportation sector and mitigate GHG emissions, thus improving air quality and citizens health in Sfax, Bizerte and Djerba island. The electrification of transport sector will allow the selected cities to be greener, more resilient, better connected which will ensure access to more services and employment opportunities. Furthermore, it will generate data to support policymaking and lessons learned for the cities to support scaling up and others to replicate low carbon mobility projects.

There will be four (4) types of pilots for the municipalities: the introduction of e-bikes rental stations, charging infrastructure for EV's powered by solar PV systems, a deployment of EVs for the

municipality fleet (including waste management vehicles) and the introduction of electric taxis. Each municipality defined its needs in terms of EVs in respect to its budget and strategic orientation.

The respective pilot projects were designed similarly. The differences were in the number of electric vehicles for each type of project. Sfax expects to invest more in two wheelers technologies with 135 e-bikes and 100 motorcycles, and want to include in the project significant civil work to build bike lanes. Bizerte wants to develop more EV charging stations and invest in electric cars for the taxis and the municipality fleet with a total of 30 EVs. Djerba's distinction lies in its investment in solar powered charging station with 195 kWp capacity.

The implementation of the e-bike service will be ensured thanks to a partnership, a call for project or a tailor-made consultation (to be defined in the feasibility studies). The e-bikes could be deployed on several stations in the cities. The service implementations will require co-investment from private sector in each city independently. Thus, project targets defined in the table below are lower than the municipalities planning.

Pilot Projects details/ City	Bizerte	Sfax	Djerba
<b>E-bikes rental service</b>	60 e-bikes	60 e-bikes	60 e-bikes
<b>EV Charging infrastructure</b>	3 chargers	1 charger	2 chargers
<b>Renewable energy capacity for charging infrastructure</b>	-	20 kWp	97 kWp
<b>EVs for the municipality fleet</b>	3 e-cars	1 e-cars	2 e-cars
	1 e-cars for cleaning purposes	1 e-cars for cleaning purposes	2 e-cars for cleaning purposes
	15 e-motorcycles	100 e-motorcycles	20 e-motorcycles
	5 e-bikes	15 e-bikes	7 e-bikes
<b>Electric Taxis</b>	12 e-taxis	0 e-taxis	7 e-taxis

EV chargers combine fast-charging and normal-charging infrastructure. It will be combined with PV projects in Sfax (for municipality fleet only) and Djerba. Thus, the charging infrastructures should include connection with an operator platform with a standard such as OCPP, and the operator platform should enable connection to other web service with an internationally known standard, to support smart charging commands. The chargers would be deployed via a call for tenders or a call for projects. The selected operator of the charging service would be supported during a period of 2 years maximum, after which the service should be financially autonomous or would be closed. Charging data will be collected and analyzed during at least one year.

The PV power plant and the charging infrastructure would not be off grid, to avoid the need for batteries, which would lead to higher environmental issues. Smart charging will be implemented and monitored as much as possible in all charging infrastructures, and more specifically for municipality

fleets and taxis, that have more flexibility than fast-charging customers. Co-investments on PV may be ensured with existing programs for renewable energies. The PV power plant would be deployed via a call for tenders and would be operated in a sustainable management since the commissioning (the operation of the PV system would not change at project end). Its expected duration is 30 years.

Each municipality would purchase electric vehicle to showcase EV fleet management. These vehicles will be significantly co-financed by the municipalities: part of them already took engagement through decisions of the city council. The use of the fleet will be monitored during a period of one to two years. Municipalities will be the only operators of their fleet.

The introduction of electric taxis would be performed with a significant co-financing from taxis, a priori in the framework of a call for projects. The use of the taxis will be monitored during a period of one to two years after purchase. Taxi drivers would be the owners of the cars so the project management ends with the call for project and the purchase (no need for specific exit strategy).

The bike services would need a co-financing from the private sector, in a proportion to be defined during feasibility studies. The legal framework remains to be defined. The co-financing and the legal framework will aim to identify an operator that will manage the operation of the service by its own after project end and ensure long-term care of the infrastructure. The activity of the service will be monitored and analyzed during at least one year.

The monitoring of the pilots means that data will be gathered, monitored and analyzed, to provide relevant information for scaling-up. The collection process and indicators to be monitored will be specified in call for tenders or other consultations, according to the specifications of the feasibility studies.

Activity 2.1.2.1	Prepare contractors? terms of references for each municipality and each type of project
Activity 2.1.2.2	Implement the pilot projects based on specifications established in the feasibility studies under Output 2.1.1
Activity 2.1.2.3	Provide training workshop and technical assistance to ensure the durability of the project and the investments
Activity 2.1.2.4	Monitoring and verification of the pilots: Prepare a report on pilot projects containing results, analysis, and lessons learned

### **Component 3: Preparing for scale-up and replication of long-term sustainability of low-carbon electric mobility**

Details of the component outputs and activities are described below.

**Outcome 3: Scale-up and linkage with the Global Electric Mobility Programme are facilitated resulting in new e-mobility investments**



Outputs	Activities	Partners involved
<b>3.1 Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in four cities in Tunisia)</b>	<ul style="list-style-type: none"> <li>? Verify training needs of key stakeholders on EV-RE integration</li> <li>? Develop training program tailored to governmental institutions needs on e-mobility in Tunisia and future trainers</li> <li>? Prepare training material</li> <li>? Deliver a minimum of two training sessions on EV-RE integration to future trainer and to key stakeholders who are members of the National Electric mobility Coordination Unit (Output 1.1.1) and other possible stakeholders identified through stakeholders mapping (minimum 30% women participation)</li> <li>? Report of training sessions, lessons learned and recommendations</li> <li>? Professional competency for the electric mobility uptake is strengthened through formal and informal formation mechanism</li> <li>? Develop knowledge product targeted at integrating of EV-RE in Tunisia</li> <li>? Assess projects? pipeline for financing options with the three municipalities targeted by the project to facilitate continued investment and accelerate scale-up</li> <li>? Develop a project concept note for at least one scale-up option</li> </ul>	<p>ANME</p> <p>training organizations and/or consulting and engineering offices</p> <p>Ministry of Environment</p>
<b>3.2 Annual meetings and other dissemination events including the Global Electric Mobility Programme</b>	<ul style="list-style-type: none"> <li>? Facilitate regional and global exchanges through the Global Electric Mobility Programme</li> <li>? Participation of key stakeholders in Global Electric Mobility Programme workshops and events</li> <li>? Participation of key stakeholders in teleconferences</li> <li>? Develop outreach material showcasing the pilot demonstrations implemented in Output 2.1.2</li> <li>? Organize a scale-up event to share knowledge, methodology and lessons learned</li> <li>? An Electric mobility online information platform hosted by ANME is created and deployed to ease knowledge sharing</li> </ul>	<p>ANME</p> <p>Ministry of Environment</p>

*Outcome 3: Scale-up and linkage with the Global Electric Mobility Programme are facilitated resulting in new e-mobility investments*

Exchanging knowledge and lessons learned through national and international Global Programme events to scale e-mobility.

All capacity building activities, knowledge materials and tools will be gender responsive. This includes considering gender sensitive language, avoiding gender stereotyping, including gender dimensions into training materials, ensuring that both women and men participate in the trainings as trainees and facilitators, etc.

**Output 3.1.1 Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in four cities in Tunisia**

Training needs on EV-RE integration for relevant of national stakeholders will be precisely identified during project implementation. On one hand, capacity building training will be carried out for governmental and local institutions stakeholders and policy makers, to support them in the definition of the strategy and the policy. At least two training sessions will be offered to stakeholders, with a target at least 33% women participants. The trainings will, when possible, include a return on experience from the pilot projects. Training material will be prepared, for these sessions and for possible future sessions and be gender-responsive. **A specific complementary session will be designed to ensure a train-the-trainer approach. Future trainers will be invited to the training to stakeholders and will benefit from additional content to be able to perform trainings by themselves.**

The national and strategic events will be organized in Tunis. The specific events of the pilot projects will be organized in the three beneficiary cities.

On the other hand, professional training will be developed, to strengthened professional competencies such as EV maintenance, EV charger installation and maintenance, or national and local strategies for EV development and EV charger ? RE projects development. The issues relative to battery end-of-life management will be addressed during trainings for stakeholders as well as during professional trainings.

Based on pilot projects and trainings, gender-responsive knowledge products will be developed and shared.

Project pipeline will be assessed for financing options, to secure projects and accelerate the scale-up.

A concept-note will be prepared, based on one or several pilot projects. The concept-note will aim to facilitate scale-up of projects that are locally implemented in Component 2.

These activities will be performed by the ANME or by training organizations selected by the ANME. Professional trainings will be developed in partnership with The National School of Advanced Science and Technology.

Training modules will include a range of environmental, social and technical topics such as; RE-EV integration, GHG emission reduction potential of e-mobility, how to tackle range anxiety, future technology scenarios and environmental impact with a focus on battery lifecycle. Environmentally sound management of EV batteries will also be covered in the knowledge product.

Finally, training on unconscious bias will be included into training materials to raise awareness on gender bias and capacity will be built on how to address bias to enhance gender equality and women's empowerment.

Activity 3.1.1.1	Verify training needs of key stakeholders on EV-RE integration and develop training program tailored to governmental institutions needs on e-mobility in Tunisia
Activity 3.1.1.2	Deliver at least two training sessions on EV-RE integration to key stakeholders
Activity 3.1.1.3	Report of training sessions, lessons learned and recommendations
Activity 3.1.1.4	Professional competency for the electric mobility uptake is strengthened through formal and informal formation mechanism
Activity 3.1.1.5	Develop knowledge product targeted at integrating of EV-RE in Tunisia
Activity 3.1.1.6	Assess projects? pipeline for financing options with the three municipalities targeted by the project to facilitate continued investment and accelerate scale-up
Activity 3.1.1.7	Develop a project concept note for at least one scale-up option

*Output 3.1.2 Annual meetings and other dissemination events including the Global Electric Mobility Programme*

This output will engage with the Global Electric Mobility Programme to exchange best practices, support replicability, disseminate best practices and encourage replicability. The project team will encourage and organize active participation of national stakeholders to Global Electric Mobility Programme global events, annual meetings, targeted training programmes and in regional platform meetings such as e-mobility trainings and market-place events.

In addition, outreach material showcasing the pilot demonstrations implemented in Output 2.1.2 will be developed. A scale-up event will be built up to share knowledge, methodology and lessons learned. Material and event will target national and local actors and institutions.

An Electric mobility online information platform hosted by ANME will be created and deployed to ease knowledge sharing. All material such as event presentations, concept note, outreach material, knowledge products will be shared on the platform.

Activity 3.1.2.1	Facilitate regional and global exchanges through the Global Electric Mobility Programme
Activity 3.1.2.2	An Electric mobility online information platform hosted by ANME is created and deployed to ease knowledge sharing
Activity 3.1.2.3	Develop outreach material showcasing the pilot demonstrations implemented in Output 2.1.2
Activity 3.1.2.4	Organize a scale-up event to share knowledge, methodology and lessons learned

**Component 4: Monitoring and Evaluation**

Component 4 aims at establishing and implementing effective project monitoring and evaluation mechanisms alongside capturing progress and lessons learnt. Gender- disaggregated data will be captured wherever possible during monitoring and evaluation efforts. ANME will monitor progress of all activities to ensure the project is completed on time and to budget, as well as to be responsive and proactive about any potential adjustment or opportunities that arise that can further leverage the GEF grant for achieving additional GEBs. Monitoring is considered a day-to-day activity and as such is carried out by the ANME. ESMP will also be monitored and update will be provided in the Project Implementation Report (PIR) to the GEF. UNIDO will provide oversight and guidance. As per GEF and UNIDO guidelines, a mid-term review (MTR) and an independent terminal evaluation will be conducted at the conclusion of the project to collect best practices and lessons learned for future projects. All monitoring and evaluation tools and documents, such as the monitoring plan, progress reports, final evaluation report, and thematic evaluations (e.g., training needs assessment), will include gender dimensions, and report with respect to an established baseline for gender related targets in the gender mainstreaming action plan. UNIDO will be responsible for the MTR and the TE only.

*Outcome 4: Adequate monitoring of all project indicators in line with GEF, UNIDO and GoT requirements*

The expected outputs that will contribute to the realization of the overall outcome of Component 4 are the following:

**Output 4.1.1** Monitoring and mid-term review

This output under monitoring and evaluation component includes activities below:

? 4.1.1.1 Regular monitoring of project activities against project targets (ANME)

Establish a Project Steering Committee (PSC)
Hold a Project Inception Workshop within the first three months of project start and prepare an Inception Report.
Draft and approve annual work-plans on planned project activities and outputs.
Project monitoring plan designed and executed
Undertake day-to-day monitoring of the overall project activities as well as periodic progress reviews

? 4.1.1.2 Independent mid-term review conducted (UNIDO)

**Output 4.1.2** Independent terminal evaluation conducted

? 4.1.2.1 Independent terminal evaluation on the project conducted at the end of the project

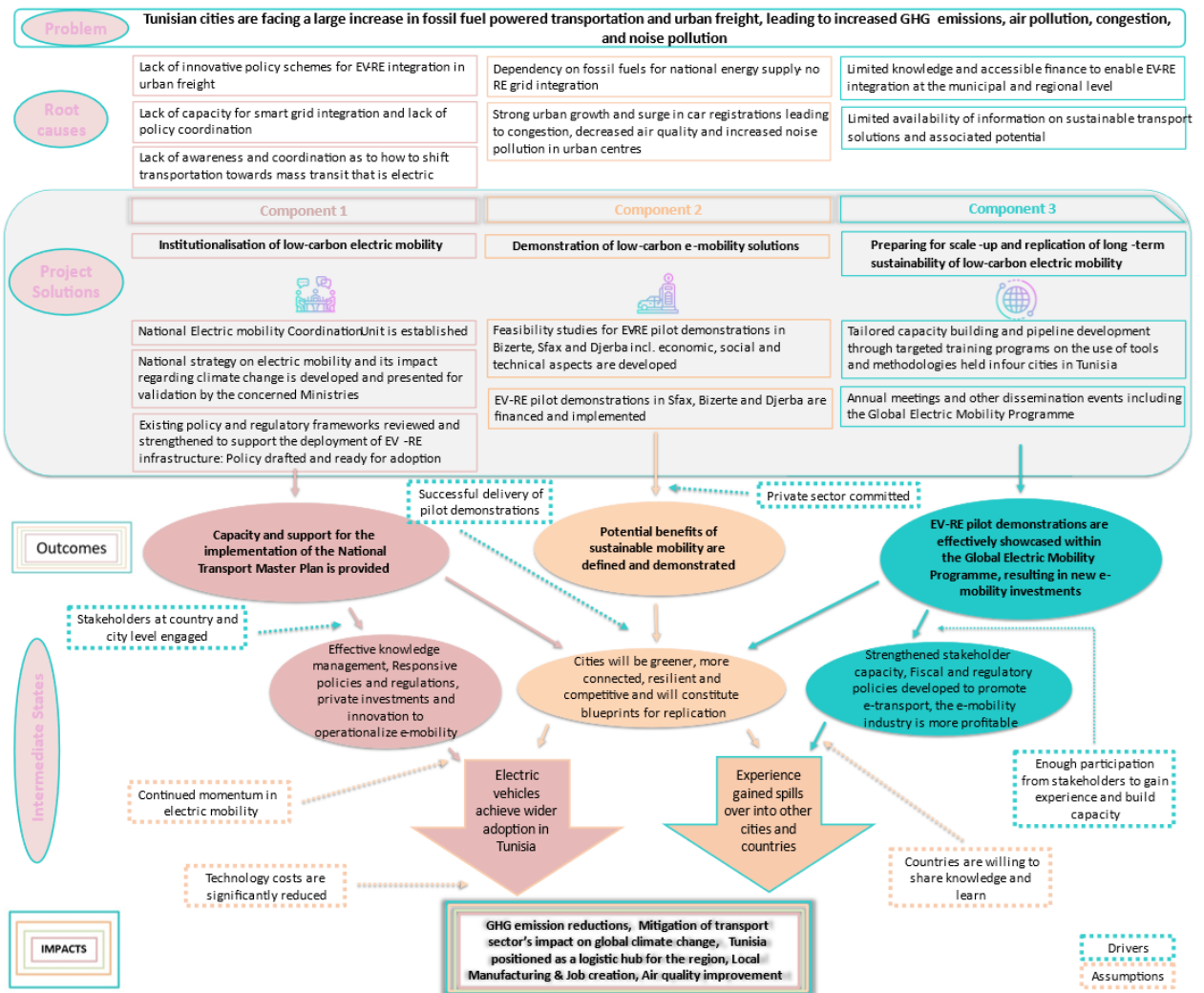
Terminal evaluation (TE) will evaluate the envisaged gender outcome at the end of the project. TE will be conducted by international and national independent evaluation experts as per UNIDO and GEF guidelines.

### **Theory of Change (ToC)**

The project solutions in the ToC are based on the root causes which lay under the unsustainable transport problem in Tunisia.

The project outputs are structured to target one or more root causes. The logical pathways including driving forces and assumed scenarios between the outputs and outcomes are shown with arrows connecting the boxes. Different colors show the different Components of the project. Component 4 on monitoring and evaluation, gender mainstreaming and environmental and social impact assessment are considered cross-cutting and not shown in the ToC.

The ToC shows that IF the outputs (project interventions) are conducted successfully THEN the project will reduce GHG emissions resulting from transportation BECAUSE creating evidence through pilot technology demonstration, building capacity on e-mobility and enabling policies and investment conditions for private sector will accelerate the adoption of EVs and promote sustainable transportation in Tunisia.



#### 4) Alignment with GEF focal area and/or Impact Program strategies

The project aims to reduce the GHG emissions resulting from transport, strengthen awareness and develop institutional and technical capacities into relevant policies, plans and associated processes at sub-national and national level. It will also support cities in realizing Global Environmental Benefits outlined under GEF-7. From a climate change mitigation perspective, the project aligns with GEF-7 strategic objective to finance low-carbon technologies and mitigation options and promoting integrated low-emission urban transport, catalyzing technology innovations towards scale, whilst counteracting environmental impacts of air pollution through the transport sector in urban areas. More specifically, it is linked to Climate Change Mitigation (CCM) focal area (FA) CCM 1.2 ?Promote innovation and technology transfer for sustainable energy breakthroughs for electric drive technologies and electric mobility?, but also CCM-1-1 ?Promote innovation and technology transfer for sustainable energy breakthroughs for decentralized power with energy usage? and potentially CCM-2-5 ?Demonstrate mitigation options with systemic impacts for sustainable cities impact program?.

The realization of the pilot projects in the different municipalities will result in direct GHG emission reductions. Indirect GHG emissions are expected to be reduced through replication and scale-up of the pilot project. The project will ensure this through dedicated output on scaling-up and enabling policies.

The GHG emissions and the number of direct beneficiaries were calculated based on the programme's calculation methods and assumptions in the PFD.

**5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing**

The project will build on a number of baseline initiatives to ensure that they are coordinated coherently and move the transport sector / overall energy planning to address the problems of unsustainable mobility and unsustainable energy more broadly. The cost per ton of GHG reductions to the GEF is expected to be less than 2.4 USD. The global environmental benefits will be tracked through the project results framework, in particular the core indicator tons of direct GHG emissions avoided during project.

**Component 1:** An enhanced enabling environment and regulatory framework for the adoption of electric vehicles (EVs) with renewable energy and for the importation of used e-vehicles, alongside strengthened institutional capacity, will help catalyse and accelerate widespread use of EVs in Tunisia resulting in GHG reductions, local manufacturing, job and income creation and environmental improvements such as improvement in air quality. The project also seeks to improve access to employment as well as to health services and businesses to generate economic and social gains.

**Component 2:** E-mobility solutions demonstrated as financially feasible. Cities will be greener, more connected, resilient and competitive due to lower transportation and infrastructure costs. Enhanced connectivity and accessibility will provide efficient access to jobs and services. Low-carbon transportation infrastructure will mitigate GHG emissions and improve air quality and public health. Sfax, Bizerte and Djerba and their transit-oriented sustainable development will constitute blueprints for replication.

**Component 3:** Strengthened stakeholder capacity to design, plan and implement innovative transport solutions across Tunisia. Together with the Global Programme, training workshops will help policymakers introduce electric fleets (2&3 wheelers, cars, and buses) by developing fiscal and regulatory policies to promote e-transport.

In addition, the support from the global electric mobility programme (including networking through a regional platform) is expected to maximize the impact of the incremental financing provided by GEFTF, including through the optimization of capacity building and knowledge management activities, and provision of tools for business and financial modelling.

Without the project, it can be expected that initiatives in sustainable transport in general (and e-mobility specifically) continues to be sporadic and does not coherently push the market towards innovation ? rather resulting in continued combustion-engine based, inefficient and polluting transport modalities.

The project will also be supported by partners in the form of Cofinancing (in-kind and otherwise). It plays a key role in the incremental cost reasoning. Co-financing was identified through discussions

with stakeholder (ministries, municipalities, private sector) on funding priorities and according to existing projects and pipeline of projects. Under Component 1, funds will support the revision of the policy and regulatory framework to unlock finance flows for grid-integrated e-mobility solutions. The co-financing of the Ministry of environment is particularly oriented towards strengthening the national policy to combat the impact of climate change through the implementation of the Nationally Determined Contributions (NDCs) for the support of the adaptation of cities to climate change. The transport sector is a priority in the framework of these programmes both in terms of strategy and concrete action to promote sustainable transport (electric mobility) and reduce barriers to the development of electric mobility.

Feasibility studies will be developed under Component 2 and a competitive bidding process will be initiated to select the private supplier(s) which will be in charge of the installation of the electric urban freight solutions. ACTIA, private company specialized in the fabrication/assembly of EVs related components will provide co-financing for these low-carbon transportation investments. ANME, as project executing entity, will contribute to the implementation of Output 2.1.2 EV-RE pilot demonstrations in Sfax, Bizerte and Djerba through technical assistance, cofinancing the realization of urban development plans and contributing through the energy transition fund in the acquisition of electric vehicles and photovoltaic units. In addition to their contribution in kind, the municipalities mobilize their own funds which will serve as a contribution to the acquisition of electric vehicles.

Under Component 3, The Renewable Energy-based E-Mobility in Higher Education (REMO) project will contribute to the implementation of the Output 3 "Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in other cities in Tunisia" through the creation of an international master's degree and the development of a research programme on e-mobility.

#### 6) **Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)**

The project will generate multiple global environmental benefits building on a substantial baseline but also a strong incentivizing increment. The GHG emissions are calculated based on top-down UNEP methodology using the calculator tool.

The project will provide technical assistance and facilitate investment mobilization for pilot demonstration in three sites in Tunisia (Bizerte, Djerba, Sfax). The project's direct impact is assumed to be GHG emission reduction equivalent to:

- ? replacing 81 cars with e-cars, including 41 charged, with renewable energy
- ? replacing 19 conventional cars with e-bikes, which are very low emission vehicles

The breakdown of total (direct + indirect) GHG emission mitigation of 5,119,905 tCO<sub>2</sub>eq is summarized here briefly. The indirect post-project mitigation of this total corresponds to 3,581,071 tCO<sub>2</sub>eq assumed to be realized through replication in Tunisia. The total direct GHG emission mitigation of 1,538,834 tCO<sub>2</sub>eq consists of direct emission reduction and secondary direct.

Please see below the summary table of the GHG mitigation potential.

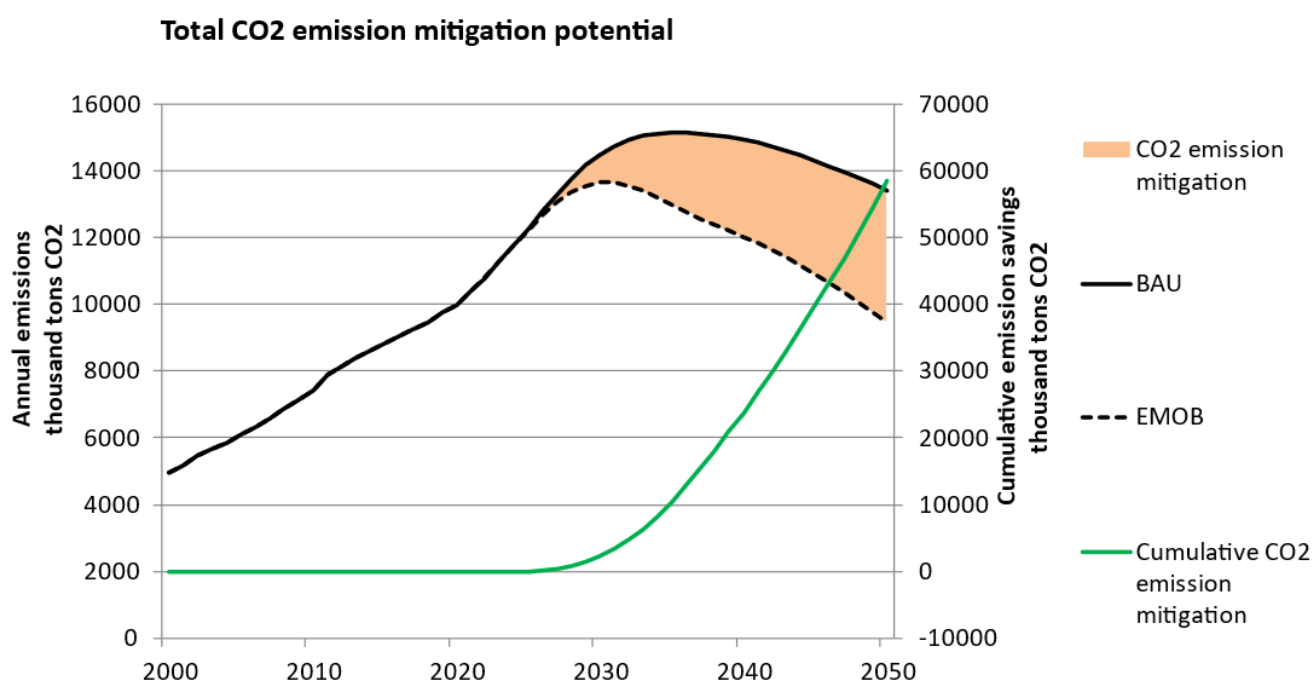


## Total top down emission mitigation potential, tCO2

Thereof

<b>Total direct emissions mitigation 2021 - 2036, tCO2</b>	<b>1 538</b>
Direct emission mitigation from demonstration 2021 - 2025, tCO2	68
Secondary direct emission mitigation 2021 - 2036, tCO2	1 570
<b>Indirect emission mitigation 2021 -2036, tCO2</b>	<b>3 581</b>
<b>Total project related emissions reductions, tCO2</b>	<b>5 119 90</b>
<b>Total GEF investment, USD</b>	<b>1 945 50</b>
<b>GEF efficiency USD/ Total direct emissions mitigation 2021 - 2036, tCO2</b>	<b>1.26</b>
<b>GEF efficiency USD/ Total project related emissions reductions, tCO2</b>	<b>0.38</b>

Please see below a graph comparing low-carbon e-mobility scenario to business-as-usual scenario.



More details can be found in the GHG mitigation emission annex.

The assumptions and sources of the input data use for the calculations are summarized below.

The vehicle stock number in Tunisia are taken from MRV estimations, since national statistics do not consider old vehicles destruction. The economy growth rate indicator is also used for secondary direct and indirect GHG emission calculations. The growth rate (%) of Tunisia economy is expected to bounce back to pre-COVID period, therefore, this value is estimated to be in average 3% from 2023 to

2030 and slow down to stay 2% from 2031 to 2050 based on the World Bank data. The value for electricity well-to-tank emissions (grid emission factor, kgCO<sub>2</sub>/kWh) is taken from the Institute for Global Environmental Strategies (IGES), population data is gathered from the statistics of UN population division and GDP prospects from IFC. It is also considered that the grid emission factor of Tunisia is assumed to be reduced moderately starting from 2025 in line with the national policies and INDC and trends such as climate agenda, green recovery and capital investment cost for renewable energy technologies.

The estimation of number of beneficiaries is 105,180 beneficiaries. The total number basically consists of:

- Number of trainees in all technical and institutional workshops: 500 (33% women).
- Number of Municipalities population (91,700) and number of foreign tourists (12,500) who will use EVs vehicles as passengers/drivers etc. (55% women)
- 20 direct and 100 indirect jobs created and employment in new businesses: 120 (33% women)

Therefore, the total number of beneficiaries is:  $500 + 91,700 + 12,500 + 120 = 105,180$  beneficiaries; 57,590 being females and 47,230 males.

## 7) **Innovativeness, sustainability and potential for scaling up**

The project design seeks to address the barriers that can catalyze sectoral change in an innovative and sustainable way, with high potential for scaling up.

The project will introduce specific **innovations**:

1. Higher engagement with the relevant stakeholders in electric mobility governance and decision making: the decision-making framework and governance structure for electric mobility deployment is in its early stages of development in Tunisia. While a task force has recently been created under the Ministry of Energy, to cooperate with ANME, the framework is still largely developing, and the involvement of other stakeholders (such as the private sector) appears to be insignificant. This project aims to establish a national stakeholder coordination unit for the matters dealing with electric transport, thereby ensuring the involvement and representation of all relevant stakeholders.
2. Innovations in the national regulatory and policy practices: the project aims to enhance the national capacity for EV adoption by developing its regulatory framework. This will include introducing new policy tools for EV-RE integration and smart grid integration.
3. Pilot projects: pilot project demonstrations on electric mobility will be financed and implemented in the cities of Sfax, Djerba, and Bizerte. These projects will serve to demonstrate the extent of commercial and technical viability of electric mobility in these locations. Moreover, the process of project implementation will draw together the relevant actors, as well as show the potential improvements in financial flows and regulatory design, resulting in innovation in the EV deployment processes.

### **Environmental Sustainability:**

The project outcomes are deemed sustainable as they are focused on regulations and capacities development and demonstration of EV technology for experience and evidence building in Tunisia. The project incorporates environmental sustainability in the outputs 1.1.2, 1.1.3, and 2.1.1, which all aim at integrating renewable energy generation with electric mobility. The vast majority of electricity in the power grid is generated by natural gas, meaning that the substitution of fuel vehicles by electric ones would shift the source of pollution from driving to power generation, with a limited reduction of GHG emission in the vehicle life cycle. By coupling electric mobility with renewable energy generation, both driving and power generating phases have low GHG emission (the vehicle manufacturing remains the major environmental issue). The project aims to establish a National Electric Mobility Coordination Unit (output 1.1.1), consisting of the key stakeholders involved in e-mobility. It will also contribute to build up a national strategy on e-mobility (output 1.1.2), and to prepare regulation to improve the legal framework for low carbon emission vehicles (output 1.1.3). Component 3 aims to enforce actors' capacity to scale-up electric mobility in the country (national stakeholders as well as professional competency) and ensure a conducive and sustainable future for e-mobility in Tunisia. In addition, through Component 3, the project will ensure knowledge sharing through the creation of an online information platform and public awareness through the development of outreach material showcasing the pilot demonstrations.

Finally, the Project Executing Entity is the National Agency for Energy Management (ANME). It is a non-administrative public institution under the administrative supervision of the Ministry of Energy, Mines and Energy Transition. The project will strengthen the capacity of ANME as well as its role in the e-mobility sector ensuring the sustainability of the project intervention.

#### **Sustainability of Market Development after the project:**

Sustainability of market development will primarily be ensured through components 1 and 2. Component 1 will enhance the regulatory framework, creating a more fruitful environment for electric mobility projects and deployment, including in the questions of EV-RE integration and uptake. Component 2 will provide financial sustainability for market development in the cities through the pilot projects which will help to identify opportunities, issues, and approaches for further development of the e-mobility market.

#### **Potential for scale-up:**

Component 2 of the project (pilot projects) is specifically designed for the demonstration of electric mobility before the scale-up. The NDC under development does envision the integration of electric mobility, and Bizerte specifically plans to purchase electric buses and cabs. In other words, the institutional commitment for scale-up is present, which means that the pilot projects can be scaled up both within the cities, as well as on a national scale.

Parts of component 3 can also be potentially scaled up. In particular, the training programs which are to be held in the cities can be replicated for other localities, up to the nationwide level. The practices of annual meetings and events, as well as participation in the Global Electric Mobility Programme can also be introduced in other localities.

The project will facilitate continued investment and accelerate scale-up by assessing projects' pipeline for financing options in Djerba, Sfax and Bizerte. A scale-up event will also be organized to share

knowledge, methodology and lessons learned and a project concept note will be developed for at least one scale-up option, **mostly based on results of Component 2.**

As for Component 1, the creation of National Electric Mobility Coordination Unit (NEMCU) can be scaled up? (or scaled down?) by introducing similar units on regional and local levels, where local stakeholders can be more actively involved in the decision-making on transport innovations and e-mobility.

---

[1] <https://www.worldbank.org/en/news/feature/2013/10/24/financing-sustainable-cities-africa-creditworthy>

[2] [IEA, Global EV Outlook 2021- Accelerating ambitions despite the pandemic](#)

[3] [https://unece.org/DAM/RCM\\_Website/ToRs\\_IBC\\_Environment\\_and\\_CC\\_24.3.20.pdf](https://unece.org/DAM/RCM_Website/ToRs_IBC_Environment_and_CC_24.3.20.pdf)

[4] [UNIDO Best Practices in Electric Mobility, 2020](#)

[5] [https://www.climatelinks.org/sites/default/files/asset/document/Tunisia\\_CRP.pdf](https://www.climatelinks.org/sites/default/files/asset/document/Tunisia_CRP.pdf)

[6] <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tunisia%20First/INDC-Tunisia-English%20Version.pdf>

[7] <https://inkyfada.com/fr/2019/07/04/pollution-pm10-tunisie/>

[8] <http://blogs.worldbank.org/arabvoices/tunisia-faces-tough-strategic-choices-demand-energy-begins-outstrip-supply>

[9] [Tunisie : Un projet de loi pour les voitures électriques](#)

[10] [Customs nomenclature](#), <https://www.douane.gov.tn/consultation-tarif-2/>

[11] [La voiture électrique fait son entrée en Tunisie](#)

[12] [Politique Nationale de la Mobilité Urbaine](#)

[13] [Social acceptance of alternative mobility systems in Tunis \(Kilian-Yasin et al., 2016\)](#)

[14] <https://www.trade.gov/country-commercial-guides/tunisia>

[15] [https://www.omv.tn/services/downloads/00/omv.tn/1522154598804/Factsheet%20Nawara%20Gas%20Development\\_AR](https://www.omv.tn/services/downloads/00/omv.tn/1522154598804/Factsheet%20Nawara%20Gas%20Development_AR)

[16] <https://www.rcreee.org/news/tunisia-announces-renewable-energy-action-plan-2030>

[17] <https://www.railwaypro.com/wp/tunisia-develops-national-transport-master-plan-2040/>

[18] <https://www.railwaypro.com/wp/tunisia-develops-national-transport-master-plan-2040/>

[19] <https://projectsportal.afdb.org/dataportal/VProject/show/P-TN-D00-003>

[20] [National Urban Mobility Policy, Concept GHG mitigation and accounting, Tunisian Ministry of Transport, National Agency for Energy Control, March 2020](#)

[21] [finance law 2018](#)

[22] <https://inkyfada.com/fr/2019/07/04/pollution-pm10-tunisie/>

## 1b. Project Map and Coordinates

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

The project will scale up electric mobility in Sfax, Bizerte and Djerba:

- **Sfax:** 34.74N, 10.76E
- **Bizerte:** 37.27N, 9.88E
- **Djerba:** 33.8N, 10.9E



Figure 6: The five Municipalities targeted by the project

Sfax is Tunisia's major port and second largest city (population: 400,000), located on the coast about 270 km from the capital. Sfax's rapid growth has been accompanied by air pollution from industry and transportation due to congestion, and high dependency on fossil fuels.

The 'Tunisia 2020' initiative aims to make the coastal city of Bizerte (population: 143,000) a smart cities leader in Tunisia and in Africa. Municipal authorities are focused on electric mobility and sustainable tourism.

North Africa's biggest island, Djerba, (population: 163,726 as of 2016), has a large potential for electric mobility for individual and public transport. Energy consumption is driven by the growth of the tourism industry (6% per annum).

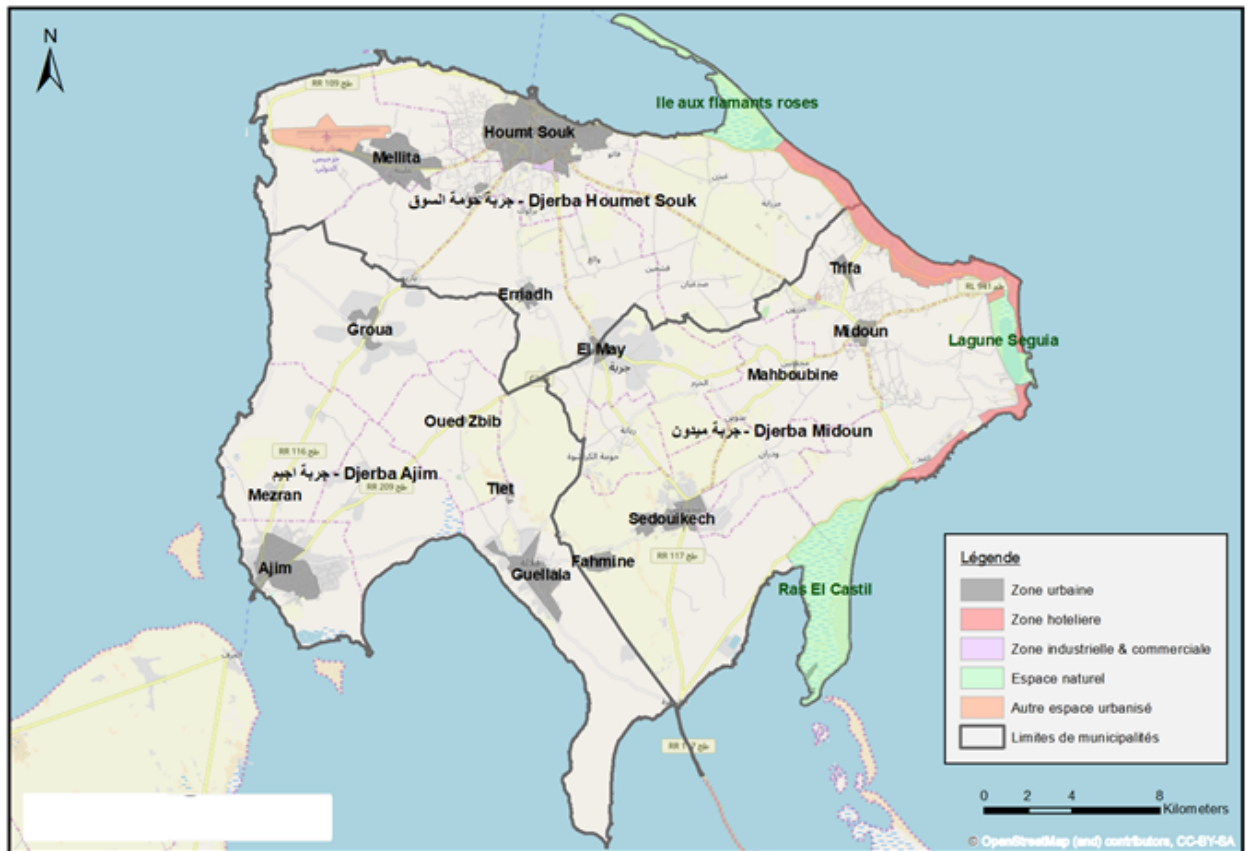


Figure 7: Djerba island



1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

The current project is hosted under the 'Global Programme to Support Countries with the Shift to Electric Mobility'. The Global Programme is based on the following four components:

- Component 1: Global thematic working groups and knowledge materials
- Component 2: Support and Investment Platforms
- Component 3: Country project implementation
- Component 4: Tracking progress, monitoring and dissemination

The Global Programme has put in place the monitoring framework below to track progress both globally and at the level of the country child projects. 12 indicators have been designed for this purpose: 6 relying on global level information (highlighted in blue) and 6 relying on country level information (highlighted in green).

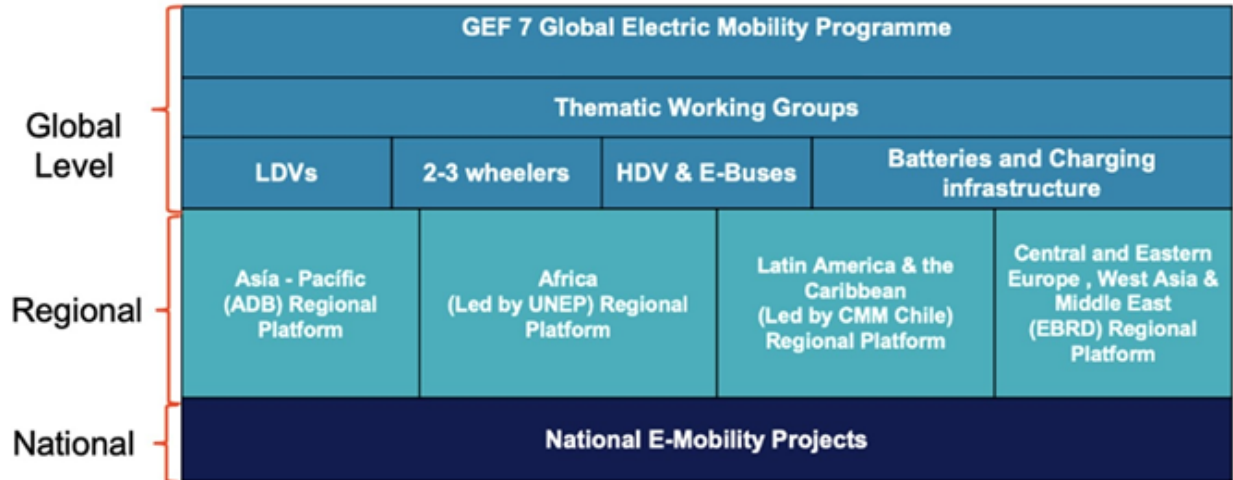
Global E-mobility Programme Monitoring Framework			
 Global level monitoring		 Country level monitoring	
Objective level indicators			
Indicator A: Direct and Indirect Greenhouse Gas Emissions Mitigated (metric tons of CO2) mitigated			
Indicator B: Direct and Indirect energy savings (MJ)			
Indicator C: Number of direct beneficiaries (disaggregated by Gender)			
Component 1 Global thematic working groups and knowledge materials	Component 2 Support and Investment Platforms	Component 3 Country project implementation (Child Projects)	Component 4 Tracking progress, monitoring and dissemination
Outcome 1 Knowledge products are generated to support policy making and investment decision-making through four global thematic working groups	Outcome 2 Conditions are created for market expansion and investment in electric mobility through support and investment platforms	Outcome 3 Conditions are created at country and city level for the introduction of electric mobility demonstration projects, and wider uptake of electric mobility	Outcome 4 Projects and electric mobility markets are tracked, and key developments, best practices and other lessons learned are shared to promote wider uptake of electric mobility.
Indicator 1.1 # of knowledge products developed by the four thematic working groups and used by the Support and Investment platforms in their training and outreach activities	Indicator 2.1 % of countries using services and knowledge products offered by the Support and Investment Platform	Indicator 3.1 % of countries with an improved institutional framework and a strategy to promote the uptake of low-carbon electric mobility	Indicator 4.1 % of countries generating and sharing best practices and other lessons learned on low-carbon electric mobility with the global programme
Indicator 2.2 # of e-mobility scale-up and / or replication concepts facilitated as a result of the match-making	Indicator 2.2 # of e-mobility scale-up and / or replication concepts facilitated as a result of the match-making	Indicator 3.2 % of countries with nationally generated evidence of the technical, financial and/or environmental benefits of low-carbon electric mobility	Indicator 4.2 # of e-mobility knowledge products refined based on evidence coming from the country projects
Indicator 2.3 # of financial institutions / development banks (national/regional) that have been engaged through the Global Programme and are actively supporting e-mobility projects	Indicator 2.3 # of financial institutions / development banks (national/regional) that have been engaged through the Global Programme and are actively supporting e-mobility projects	Indicator 3.3 % of countries that have improved preparedness to accelerate market transformation towards low-carbon electric mobility	Indicator 4.3 # of non-e-mobility programme countries committing to actively promote the uptake of low-carbon e-mobility
Indicator 2.4 # of US\$ leveraged to scale-up low-carbon electric mobility through the support and investment platforms	Indicator 2.4 # of US\$ leveraged to scale-up low-carbon electric mobility through the support and investment platforms	Indicator 3.4 % of countries with measures in place to ensure the long-term environmental sustainability of low-carbon electric mobility	

The global project will report against this framework on an annual basis, using (1) the global level data from the Global Thematic Working Groups and from the Support and Investment Platforms, and (2) country level data provided by each country project during their annual Project Implementation Review (PIR) process.

For this purpose and whenever applicable, the global level indicators highlighted in green are translated into a country-level indicator in the Project Results Framework located in Annex A of the present CEO Endorsement Document. During project implementation, the Executing Agency will be requested to report against the indicators of the country Project Results Framework (Annex A) on an annual basis, during the PIR process, in addition to the usual GEF Core Indicators (mentioned at the top of the table above).

At the global level, a steering committee led by the United Nations Environment Programme will coordinate and monitor the implementation and the outputs of the GEF 7 Electric Mobility Programme. On technical gaps, four thematic working groups at the global level will support the rapid introduction of electric mobility in GEF recipient countries. These working groups will generate universal knowledge products that contain best practices, factsheets, interactive tools and guidance, as well as

experiences from countries that have advanced their e-mobility market. The working groups will be integrated by representatives from the global programme regional platforms, GEF-7 countries, IEA, vehicle manufacturers, utilities, researchers and the civil society. The governance structure is presented in the figure below.



Governance structure between the global programme, the national e-mobility projects, and the regional Support and Investment Platform:

The coordination between the global program, the steering committee, the thematic working groups, and the national projects will be facilitated by the regional Support and Investment Platform. The role of the regional platform is to provide customized technical assistance to ensure the success of the country projects. Moreover, knowledge products developed by the working groups will be adapted and disseminated by the regional platform according to the regional and national context, specific needs and languages.

The 4 Support and Investment Platform will interact with and support participating countries in the region to link with each other through the following activities:

- ? The creation of a community of practice for the GEF 7 regional countries;
- ? Facilitation of knowledge transfer between countries, and regions, especially those with common characteristics like SIDS;
- ? The creation of thematic groups in light-duty vehicles (LDVs), 2-3 wheelers, and buses at regional level;
- ? A marketplace between countries, technology providers and financial institutions;
- ? Help desk for technical assistance to GEF 7 countries;
- ? Personalized assistance from international experts in electric mobility;
- ? Generation of training sessions and workshops.

The national child projects will generate a learning curve on electric mobility that can be transferred to other countries within and outside of the region through the global programme. As a first contact point, the regional Support and Investment Platform will facilitate the flow of learnt lessons from child projects, such as: data and demonstration results, working business models, operational know-how, working financial instruments, and working policies and regulations. At the global level, the scenarios



proposed to share country knowledge and experiences on electric mobility are the thematic working groups, while at the regional level the countries will participate in the community of practice, the thematic regional groups, the marketplace, trainings and workshops.

The Tunisian child project aligns with the theory of change of the Global Programme. It seeks to mitigate the road transport sector's impact on climate change by reducing emissions associated with fossil-fuel based commercial and passenger vehicles. The child project focuses on lowering barriers to e-mobility and expanding e-connectivity in Tunisia; it puts the country on a path towards low-carbon transportation infrastructure development. Systemic challenges addressed by the project are listed below:

- ? Improved urban freight mobility and adoption of low carbon transport technologies
- ? Reduction of GHG emissions from Tunisia's transport sector
- ? Air quality and noise pollution improvements
- ? Increased use and accessibility of renewable energy
- ? Sustainable urbanization

Without the project, initiatives in sustainable transport (and e-mobility specifically) would continue to be sporadic and would not coherently push the sector towards innovation and energy efficiency, resulting in growing pollution.

#### **Engagement with the Global / Regional Framework**

The global programme will develop a suite of knowledge materials for e-mobility policy making, development of business models and finance schemes, methodologies for e-mobility demonstrations etc. which will be provided to the countries through the Regional Support and Investment Platforms. It envisages 6 events held by the platforms over the 4-year project lifetime in each of the regions. While the materials, trainings etc. are funded through the global programme, participation in the events (i.e., travel and accommodation) is integrated into the Tunisian child project in order to enable the child project to fully benefit from the global programme.

The project draws directly from the suite of activities presented under the global programme and is synchronized with its theory of change. As such, it will encourage widespread use of EVs powered by a grid that utilizes a high proportion of renewable energy, which will radically reduce GHG emissions and local pollutants associated with road transport. The project will reinforce existing initiatives in Tunisia and focus on increasing their durability by reinforcing and expanding national policies and the national action plan for electric vehicles. It seeks to build capacity and awareness of relevant institutions to secure grid integration and smart grid optimization. The project will complement the already existing smart grid pilot project in Sfax which aims to further the national goal of getting thirty percent of the nation's electricity from renewable sources by 2030.

In Tunisia, the two main paths to renewable energy (RE) becoming the main power source for electric vehicles (EVs) are the incorporation of a high proportion of renewable energy into the power grid and entail the establishment of a vast number of distributed renewable energy micro-grids to power a fleet of EVs. Both paths can be pursued concurrently, yet both paths present substantial obstacles. Green infrastructure investments will be assessed to systematically address the mobility and environmental

challenges within the country. Technology options and investment needs will be assessed through climate-smart capital investment planning for the mobility in Sfax, Bizerte and Djerba. Different modalities of public-private partnership for infrastructure investments will be considered. Private sector actors, such as the fuel concessionaires installed on the highway A1 or private companies specialized in the fabrication/assembly of EVs related components, have been preliminarily engaged for providing co-financing of replicable, low-carbon transportation investments.

The project will focus primarily on Sfax, Bizerte and Djerba at first but aims to share the experiences with other cities in the country to support capacity building and scale up of interventions. Exchanging knowledge, experiences and lessons through the establishment of a national partnership platform on electric mobility will guide and support the replication in the country.

As such, the project design is therefore tailored to the specific barriers to RE-based electric mobility within the Tunisian context (Components 1 and 2) and then it is designed to share lessons on its experience within the wider programme to leverage its lessons learned at a regional and global level (Component 3).

## **2. Stakeholders**

**Please provide the Stakeholder Engagement Plan or equivalent assessment.**

Please find attached Stakeholder Engagement Plan.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

The project will engage with the relevant governmental stakeholders including at the national and local level. At the national level, the project will build capacity of the governmental stakeholders to design and implement transport policies contributing to the national transport master plan for 2040. Among the targeted stakeholders at the national levels are relevant ministries responsible for the implementation and execution of policies in infrastructure, transport, energy and environment sector, standard development organizations and regulatory bodies. At the local levels, the project will involve municipalities and complement existing projects such as the intercommunal cooperation project in Djerba which analyzes the current system of mobility of goods and people on the island and propose solutions for improvement. The project will actively engage with a variety of private sector organizations, including private utility companies, multinational companies, technology providers and industries.

The National Executing Entities and primary stakeholders are the Ministry of Environment and the National Agency for Energy Management (ANME) which role is described below. Partners are likely to include the public institutions listed also under the following table alongside private sector partners. A summary of stakeholder consultation meetings and validation workshop, for information on the engagement of stakeholders during the development of the CEO Approval document and associated annexes as well as how they will be involved during the project execution can be found under the Stakeholder Engagement Plan (SEP) Annex.

### Stakeholders involved in the proposed project

	Stakeholder	Role in the project
Government	Ministry of environment	<ul style="list-style-type: none"> <li>- Setting up the national coordination unit,</li> <li>- Coordinate with the relevant departments in the development of policy to support the deployment of RE-EV infrastructure</li> <li>- Coordinate with the Ministry of Energy and Renewable Energy the adoption of policies related to the development of renewable energy and its integration into the national grid</li> <li>- Oversee the organization of events, annual meetings and training programs focused on the use of tools and methodologies organized in four Tunisian cities.</li> <li>- Supervise national participation in Global Electric Mobility Program events, annual meetings and targeted training programs.</li> </ul>
Lead Executing Entity	National Agency for Energy Conservation (ANME)	<ul style="list-style-type: none"> <li>- To ensure the administrative and financial management of the project (establishment of contracts, orders and payments) for components I, II and III</li> <li>- Execution of components I, II and III of the projects,</li> <li>- Coordinate the implementation of the EV-RE pilot projects in the municipalities of Bizerte, Sfax and Djerba, Component II</li> <li>- Provide technical assistance to the Municipalities</li> <li>- Monitor indicators and work to facilitate their achievement (component 4)</li> </ul>
Partner Agency	Municipalities Bizerte Sfax and Djerba	Implementation of pilot projects with the support of ANME
Partner Agency	Ministry of Transport and Logistics	<ul style="list-style-type: none"> <li>- Implementation of the National Sustainable Transport Plan and in particular point 8-area 2: Promote the purchase of electric and hybrid vehicles.</li> <li>- Follow-up and approval of the strategic and policy documents produced by the project by the National Electric mobility Coordination Unit component I</li> </ul>
Partner Agency	Technical Agency for Land Transport	<ul style="list-style-type: none"> <li>- Contribution to the elaboration of technical conditions for the installation and acquisition of equipment related to the implementation of pilot projects?</li> <li>- Approving the electric vehicles put on the market and developed or imported within the framework of the project Component II</li> </ul>

Partner Agency	Ministry of Equipment, Housing and Infrastructure	<ul style="list-style-type: none"> <li>- Include in the conditions for granting building permits for public buildings the reservation of parking spaces equipped for the charging of electric cars, Component II</li> <li>- Granting permission for the installation of charging points on classified roads Component II</li> </ul>
Partner Agency	Ministry of Finance	Integration in the finance law and the investment code of the financial and fiscal measures necessary for the implementation of the national policy for the development of electric mobility Component I
Partner Agency	Agence Nationale de Protection de Environnement	Contribution to the implementation of the awareness program in coordination with the Ministry of Environment Components I and III
Partner Agency	Ministry of Trade	Elaboration of specifications for local and foreign trade in components and equipment dedicated to electric mobility, Component II
Partner Institution	Private sector	<ul style="list-style-type: none"> <li>- Creation of start-up for the installation of charging stations and the production of components and equipment dedicated to electric cars, Component II</li> <li>- Investment in the production of equipment and electric vehicles Component I and II</li> </ul>
Partner institution	Ministry of Employment, Vocational Training and Social Economy	<p>Integration of training on the installation and maintenance of electric equipment and cars</p> <p>Elaboration of specifications and integration of electric mobility projects in the support portfolios for young professionals</p> <ul style="list-style-type: none"> <li>- The Dignity contract program</li> <li>- Initiation to professional life course (SIVP)</li> <li>- Graduate insertion contract</li> <li>- Contracts for qualification and professional integration (for non-graduates)</li> <li>- Contract for reintegration into working life</li> <li>- Support program for micro-enterprises</li> </ul>

Partner institution	Tunisian Electricity and Gas Company (STEG)	<ul style="list-style-type: none"> <li>- Adaptation of the grid to cover consumption needs,</li> <li>- Connecting PV plants to the grid,</li> <li>- Setting up fast charging stations in partnership with the petroleum distribution companies in its network of service stations, Components I and II</li> </ul>
Partner institution	Tunisian Customs	Review and revise the regulations on the import and pricing of electric vehicles
GEEW Stakeholders	Cross-cutting	<p>Gender experts and women centered NGOs are stakeholder relevant to the project's gender mainstreaming approach (see Gender Plan).</p> <p>Role in project</p> <p>Gender focal points, gender experts, and organizations promoting GEEW will be engaged in the project implementation.</p>

**Select what role civil society will play in the project:**

**Consulted only;** Yes

**Member of Advisory Body; Contractor;**

**Co-financier;**

**Member of project steering committee or equivalent decision-making body;**

**Executor or co-executor;**

**Other (Please explain)**

The project will engage with NGOs working on women and youth empowerment and local civil society through consultation meetings to assess and mitigate any emerging social and environmental risks related to the pilot projects. Furthermore, the project will consult with the civil society representatives in relation to policy-related activities under the Component 1 and pilot demonstrations in Component 2. The following local NGOs are identified and could be consulted:

- ATPR, Association Tunisienne de Pr?vention Routi?re (national and local specialist)
- Association Tunisienne de la Protection des Accidents de la Route (national, possibly local specialist)

- ASWAT NISSA (national, possibly local referents)
- Association Tunisienne des Femmes Ing?nieures
- ADSS, Association de d?veloppement Solidaire de Sfax
- Sfax Charity
- Association de Djerba pour les Sciences et la Technologie
- Association Bizerte Environment
- Association de Sauvegarde et de Protection du Littoral De Bizerte
- Association pour la Protection de l?Environnement et le D?veloppement Durable de Bizerte
- Bizerte Smart City???

### **3. Gender Equality and Women's Empowerment**

#### **Provide the gender analysis or equivalent socio-economic assesment.**

UNIDO recognizes that gender equality and the empowerment of women have a significant positive impact on sustained economic growth and inclusive development of sustainable transport, key drivers of poverty alleviation and social progress. The UNIDO vision, as laid down in the 2019 Policy on Gender Equality and the Empowerment of Women (DGB/2019/16), is that women and men can equally lead, participate in, and benefit from inclusive and sustainable industrial development. Towards this vision, UNIDO follows a comprehensive approach to gender equality and the empowerment of women, recognizing the interests, needs and priorities of both women and men and the intersecting diversity of different groups. Moreover, UNIDO recognized the importance of involving vulnerable groups (incl. women of color, young women) and the economy and society at large (with a special focus on groups most affected by climate-prone natural disasters).

A social and gender analysis was conducted during the PPG phase to seek input from vulnerable groups (Please see Gender Annex). To establish a gender baseline and develop gender-based targets, basic data and qualitative information on social and gender aspects of the project was collected during PPG phase. PPG funds were allocated towards a review of the project design by a gender expert.

Research has demonstrated that women users of public transport are more susceptible to negative impacts of inadequate mobility choices as well as low public transport service levels.[1] As a guiding principle, the project is designed to ensure that both women and men (including as staff in institutions, as experts, and as audience, speakers and panelists at events, or where relevant in communities benefiting from the e-mobility pilots) are provided equal opportunities to lead, participate in and benefit from the project.

In practical terms, this will be demonstrated in a multitude of ways:

- ? A Gender baseline report has been prepared for this project during the project inception phase. During project inception, the gender analysis and the gender mainstreaming action plan including the gender responsive targets and indicators will be validated and approved by the PSC as well as monitored during project implementation.
- ? Gender-sensitive recruitment will be practiced at all levels where possible, especially in selection of project staff, researchers and experts, as well as technical staff. Gender responsive TORs will be used to mainstream gender in the activities of consultants and experts. In cases where the project does not have direct influence, gender-sensitive recruitment will be encouraged. Furthermore, whenever possible existing staff will be trained and their awareness raised regarding gender issues.
- ? Existing and new staff will be trained and their awareness raised on gender issues when possible.
- ? Gender dimensions will be considered when data collections or assessments are conducted as part of project implementation. Examples include sex-disaggregated data collection and performing gender analysis as part of Environmental and Social Impact Assessments. Research, data and assessments will consider gender and age differentiated needs of women and men from different social groups.
- ? Gender dimensions will be considered in all decision-making processes. With respect to project management, the National Transport Coordination Unit meetings will aim to be gender balanced and extend invitations to observers that represent gender dimensions, such as organizations / associations promoting gender equality and advocating women's empowerment. During project activity implementation, effort will be given during stakeholder consultations towards focusing on gender equality and women's empowerment issues, in particular during policy review and formulation.
- ? At project management level, Project Steering Committee will make efforts to be gender balanced and/ or during meetings will invite observers to ensure that gender dimensions are taken into consideration. At the level of project activity implementation, effort will also be made to consult with stakeholders focusing on gender equality and women's empowerment issues. This is especially relevant in policy review and formulation.
- ? Efforts will be made to promote participation of women in training activities, both at managerial and technical levels, as participants and trainers. This can include advertising of the events to women's technical associations, encouraging companies to send female employees, provide childcare and safe transport, offer scholarships or reduced fees for women, adjusting TOR for selection of the trainers, etc.
- ? The project will pursue thorough gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as civil society and non-governmental organizations promoting gender equality. This shall mitigate social and gender related risks, promote gender equality, create a culture of mutual acceptance, and maximize the potential contribution of the project to improving gender equality in the energy field.

The planned project outcomes will be enhanced by considering gender equality and women's empowerment by adopting a gender lens at high-level decision-making bodies and forums, and within planning and developments relating to sustainable transport. A component-by-component short description is provided:

**Component 1:** The consultations for the strategy and the policy have women consultations targets. Women's organizations will also be invited to the validation workshops. The policy and strategy will be gender-sensitive. Women's socio-economic conditions are taken into account in the strategy. At least one National Electric mobility Coordination Unit member is assigned as the Gender Focal Point to ensure that the relevant project interventions are gender responsive. Meetings and workshops under this component have women participation targets.

**Component 2:** The focus of this component is the successful implementation of a demonstration-scale pilot project for e-mobility. The project will consult with the women associations and local community during the design of the pilot projects to not only integrate the needs of women and youth into project design but also provide equal opportunities for women and men to lead, benefit from and participate in the demonstration-scale pilot project.

**Component 3:** The training activities under this component have women participation targets and women's training needs are taken into account following consultations with local women's organizations.

---

[1] Ibid.

**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** Yes

**Generating socio-economic benefits or services or women** Yes

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

Yes

#### **4. Private sector engagement**

**Elaborate on private sector engagement in the project, if any**

Consultations with private sector revealed a deep interest to support the project implementation by designing and providing electric vehicles and bikes in time for the pilot projects at the fairest price and for scaling up EVs in Tunisia, in addition to the deployment of charging infrastructure services nationwide, the development of a lithium battery made in Tunisia and a recycling program for this type of battery.



The private sector will directly benefit from all project components. They will be consulted in Component 1 for strategy and policy definition and will be directly engaged in Components 2 and 3. Indeed, during project design, stakeholders from the private sector interested in electric mobility were consulted for their input on how best to implement the strategies and targets of the project. The private sector will also be represented during the implementation phase through participation of specific companies and/or associations, as partner or beneficiaries. In component 3, professional training could be developed in partnership with the private sector to be adapted to their need.

As part of its project preparation, UNIDO assisted the Municipalities with a creditworthiness workshop and a preliminary financial assessment. On that basis, the proposed project includes technical assistance components to strengthen municipalities' preparedness to attract private investments. In particular, UNIDO will offer extensive assistance to build municipalities officials' capacity to develop, manage, and supervise public-private partnerships. This includes a pipeline assessment to scope out financing options on related projects, identify revenue streams, pool projects together, etc. Finally, to provide investors with an objective measure of Municipalities' financial credibility, UNIDO will also produce a credit rating on the national scale.

Beyond the immediate benefits of the e-mobility project for the municipalities, the proposed technical assistance components will also enable opportunities for private participation across the full spectrum of the municipalities' infrastructure projects. If successful, innovative financing mechanisms are to be identified for municipalities, these will validate commercial-based solutions (from land-value capture to pooled/hybrid financing) that could serve other municipalities in Tunisia as well.

## 5. Risks to Achieving Project Objectives

**Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

### Climate change Analysis

Tunisia's climate will be significantly affected by global warming. By 2080s, mean annual temperatures are expected to increase by 1.9 degrees at least, and possibly up to 5.3 degrees. Maximum temperatures are also expected to increase, generating longer lasting and more intense heat waves. Precipitation is expected to decline over time.

As 'Climate Risk Country Profile' on Tunisia by the World Bank Group notes, 'Increasing temperatures and the increased frequency and intensity of aridity and drought are expected to further increase energy demand. Changes in demand are likely to be through the expansion of peak-hour patterns, air conditioning intensity needs and the increased need for water desalination (used in processing and station cooling).' It notes that 'the existing infrastructure and generation capabilities are ill-prepared to cope with the projected effects of climate change and the increased demand. Existing energy systems are at risk of system failures and increased/ expanded energy outages. Additionally, the projected decrease in precipitation and change in seasonal rainfall patterns are likely to reduce hydropower generation potential as well as the potential for revenue loss due to overbuilt hydropower, which may be under supplied.' Furthermore, 'increased temperatures and changing rainfall patterns may also alter the seasonal demand for energy, increasing demand during peak loads with a projected increase in net electricity usage. While Tunisia has planned to increase its renewable energy consumption by up to 30% by 2030, infrastructure and investment have yet to keep pace with these goals.'

The higher energy demand and peak demand, coupled with potentially reduced hydropower generation and Tunisia's plans to shift away from fossil-based generation, are likely to put stress on generation facilities and transmission networks. Electrification of transport is likely to increase this strain and the consumption of gas, the major and most controllable electricity source, as additional energy will be consumed throughout the grid.

The projected changes in precipitation would lead to more damage because of rainfalls (floods). As well as very high temperatures, this is a risk for structures and electrical systems. Structures of PV plants may be altered if they are not properly design, occurring breakage. Structure breakages and electrical system degradation may be direct dangers for local public and alter access to transport and energy.

Climate risks on electric vehicles are comparable to climate risks on conventional vehicle. Vehicles can be strongly damaged or carried out by floods (such situations already occur and should be a more recurrent issue in the future). In addition to material damages, it may lead to physical damages of people.

In Tunisia, the island of Djerba was flagged in the SNC as a national climate change "hotspot" on account of water scarcity, fragile resource base (including limited and depleting groundwater), high vulnerability to coastal submersion and erosion, high reliance on vulnerable tourism activities and important planned infrastructure investments.

Risks	Risk Level (Low/Medium/High)	Risk description / Mitigation Actions
Political and institutional risk	Low	This risk entails lack of support and engagement from the relevant ministries and institutions. Component 1 of the project includes extensive engagement with the relevant institutions at national, municipal and local levels. Pre-consultations on the project design with key ministries has been conducted to help mitigate political and institutional risk, and formal endorsement of the project was secured during the PPG phase. The risk that Tunisian leadership changes during the course of the project is a possibility against which the project cannot hold influence. For this reason, Components 2-3 are designed to be unaffected by leadership change. For this reason, overall project risk is low, but political/institutional risk for Component 1 is medium.
Delays in the proposed improvements to institutional and regulatory framework by public institutions	Medium	This risk is considered medium since the scale-up of infrastructure, (e.g. Components 2 and 3) depend on a clear regulatory framework that can take a while to develop and implement. The risk will be mitigated by identifying and engaging external consultants through the project to develop draft policy and strategy, under the guidance of the E-mobility working group under Output 1.1.1, which can then be quickly adopted by the Government. Multiple experts have been identified in the pre-project design phase.

Climate change risks - Infrastructure developed is vulnerable to climate risks.	Low	<p>The risks associated with climate change specifically for this project are low though potential risks due to extreme weather conditions will be addressed by ensuring that any infrastructure investment is climate-proofed.</p> <p>The climate induced risks will be mitigated especially those related to charging infrastructure by ensuring that this infrastructure meets current international standards (see Component 2) and ? where applicable ? contracting will also include a clause on resilience to climate impacts.</p> <p>This risk is due to climate risks causing damage to electricity transmission, distribution, and charging infrastructure. It is considered low since the transmission and distribution infrastructure in Tunisia is well developed.</p> <p>Project planning decisions, project design, and construction methods will take into account on-site implications of these climate hazards. The risks associated with climate change include extreme weather conditions, which will be addressed by ensuring that any infrastructure investment supported by the project is climate proofed.</p>
Financial risk	Medium	<p>Multiple contacts and extensive discussions have been held with the Municipalities to identify pilot projects and seek co-financing from them for the GEF-financed project activities. Part of them already took engagement through decisions of the city council. Tunisia and local municipalities are in a weak financial situation, but with a good budget administration and management. Commitments are fulfilled.</p>
Environmental and social risk	Low	<p>The use of any type of EVs (conventional or electric) may include environmental and social risks. Component 1 seeks to address these risks directly through the development of a strategy which will provide recommendations on EVs development and requirements, Consultation from vulnerable groups will be sought. Similar consultations will be held for example on the placement of EV-RE infrastructures, and findings from the consultations will be integrated into the feasibility studies developed under Component 2 (for example, the need for adequate lighting at the e-charging station).</p> <p>Demonstration projects include several pilot-projects that have different risks on environmental and social points of view: if a significant risk is identified for one pilot-project, it can be mitigated by reducing the size of the pilot or even cancelling it. As a counterpart, another pilot can be enforced since it is already developed.</p> <p>Please see ESMP for further details on the baseline risk and mitigation action plan of environmental and social risks.</p>

Technology risk	Low	The introduction of new technologies carries a risk that they may not be suitable for the location and use intended. UNIDO draw upon extensive research on the suitability of e-mobility for the targeted cities, and has designed the project for short-haul, intra-urban usage of e-mobility in recognition of the extreme temperatures characteristic of the region.
Low participation from the private sector	Low	Project success depends on active participation and investment from the private sector. During the project preparation phase, consultations with several private actors such as Actia, Helyos, Wallys and Assad were conducted to gather lessons learned, state of the market and strategies. It reveals a strong willingness to invest in emobility at several stages (batteries, light vehicles, cars, infrastructures?). A panel of pilot demonstrations offer different ways to include the private sector. Output 2.1 will precise more how and what private entities will invest in, work for and benefit from the pilot projects. Based on the demonstrated willingness of the Tunisian private sector to adopt and utilize e-vehicles, the risk of low participation from the private sector is considered Low.
Low representation from women in positions of power and influence on the transport policy; inadequate engagement from women or missing qualified female technicians from the engineering sector.	Low	<p>This risk will be mitigated through specifically targeting women involved in the sector for participation in consultations on policy improvements under Component 1, and for safety and other considerations under Component 2. Disaggregated data on gender participation will be collected at all meetings and other events related to the project, and targeted invitations will be made for enhanced female participation as needed. The project will follow thorough gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as civil society and non-governmental organizations promoting gender equality.</p> <p>The project team will collect and compile qualitative and quantitative gender-disaggregated data from the industries and from authorities along project implementation in order to better inform the policy instruments and apply gender mainstreaming based on the findings as well as developing workshops to include NGOs as well as with business associations.</p>
Social/ Gender Risk	Low	To ensure gender inclusiveness of all project activities, UNIDO methodology for gender assessment and gender responsive communication showing the benefits of gender equality for both women and men will be applied. To mainstream gender dimensions and empower women, adequate and gender responsive communication strategy will be implemented, and sensitization workshops will be organized. A full gender analysis was carried out and its recommendations were incorporated into the project design.

### COVID-19 risk analysis

The project will fully consider the negative implications of COVID-19 and identify the most appropriate ways to conduct implementation by using safety measures and preventive precautionary procedures. Such as organizing virtual meetings and trainings where face-to-face meetings bear health risks. The project

team will be in continuous consultations with the governmental project stakeholders on how COVID-19 could impact the implementation of project activities and additional challenges that may subsequently arise due to the national pandemic restrictions. That would be pinned in the project schedule to accommodate to the prolongation of activities implementation and mobilization challenges during the pandemic period.

Risk	Risk level	Risk mitigation measure
Further project evolution in implementation phase cannot be executed as per expected timelines due to the pandemic, leading to a delay in implementation	Low/ Medium	The Covid-19 pandemic did not prevent consultations on the project in Tunisia, as the lockdown periods were limited and the online meetings were well prepared and effective. Post-COVID-19 opportunities will be communicated in order to increase the level of stakeholder confidence in how the project can help Tunisia not only address its climate challenges.
Availability of Technical Expertise and Capacity and Changes in Timelines	Low	The project will carefully anticipate and monitor all possible implications of COVID-19 for a project start in 2022. This includes in particular the maintenance of containment regulations and their respective implications on the planning and working conditions of the various stakeholders as well as capacity changes with the implementing entity and other project partners. With regard to capacity changes of the main partners, although these are institutionally well established and have just been strengthened by the creation of a ministry dedicated solely to the environment. The local scope of the project will also reduce risk, and communication within the technical working groups and other forums such as the roundtables will help maintain an open dialogue between the different public and private parties.
Stakeholder Engagement Process	Low	A framework for stakeholder consultation is planned within the framework of the project, consisting of the representative steering committee, virtual meetings and technical assistance to the municipalities throughout the project. Currently, all restrictions have been lifted in Tunisia with a very high vaccination rate (more than 50% of the population). However, the virtual mode worked well during the PPG development period and may be an alternative if this is necessary.
Enabling Environment	Low	The promotion of renewable energy is in line with Tunisia's energy policy and its commitments under the Paris Agreement. The energy deficit is currently around 49%. The national solar plan plans to rely on alternative energies to make up for this deficit as much as possible. The African Bank has pledged to support Tunisia in its post-Covid-19 economic recovery in the areas of energy, infrastructure and transport, with financing worth US\$1.6 billion. This financing will directly benefit the electric mobility project. <a href="#">[1]</a>
Financing (National debt crisis, availability of co-financing, price increases in procurement)	Low	As per the foreseen budgeting approach, GEF funding and a diversity in co-financing allows the project to develop a certain resilience against financing risks. A close monitoring of financing risks and an open dialogue with co-financiers will be done by the ANME.

### **COVID-19 opportunity analysis**

For the project, opportunities in the context of measures taken in response to the COVID-19 pandemic exist regarding innovation in climate change mitigation and engaging with the private sector, also in line with the post-covid recovery plan announced by the Government of Tunisia on 13 July 2020[2].

This plan focuses particularly on:

- ? the maintenance of technical unemployment measures with an additional allocation of EUR 30 million as well as efforts to strengthen training and ensure professional retraining,
- ? support for company financing, particularly through the mechanism of state-guaranteed loans to the tune of EUR 467 million
- ? the creation of an activity conversion fund for companies of around 218 M EUR,
- ? the implementation of a total exemption for the shareholders of companies in the totally exporting "off-shore" sector,
- ? the implementation of a portfolio of PPP projects estimated at around EUR 623 million,
- ? a plan to enhance the attractiveness of the Tunisian territory by presenting the opportunities offered in a post-Covid context,
- ? a rescue programme for 5 public companies: Tunisair, El Fouledh, STAM and two others whose names have not yet been given,
- ? a plan to improve the efficiency and competitiveness of the port of Rades to increase from 4 containers handled per hour to 10,
- ? the improvement of the public system for strengthening competition in the internal market,
- ? the reduction and simplification of administrative procedures with the aim of reducing the number of documents required by 50%, measures accompanied by a plan to digitise the administration and build capacity in local administration.

On the social front, the Board of Executive Directors of the World Bank Group approved US\$ 300 million in financing for the COVID-19 Emergency Response Project for Social Protection[3]. This new project will provide cash transfers to about 1 million vulnerable Tunisian households to help them cope with the economic impact of the COVID-19 crisis while supporting the roll-out of a comprehensive national social protection system. This will enable Tunisia to better respond to future economic shocks.

Post-COVID-19 measures have been implemented particularly the Grant Contract concluded on 9 and 22 February 2021 between the Ministry of Economy, Finance and Investment Support, the Central Bank of Tunisia and the Investitionen Fur Beschäftigung (Investment for Employment) -IFE for an envelope of 20 million euros. This financing is intended for companies with less than 250 employees.

The Ministry of Development, Investment and International Cooperation (MDICI) is setting up a Private Sector Support Unit (UASP Covid-19) to support Tunisian and foreign investors during the deconfinement process and thus contribute to the coordination of government action. Through its umbrella structures TIA and FIPA and in coordination with private sector representatives, the MDICI offers support to all actors of the investment ecosystem by providing them with a platform to collect their requests for information and assistance during this deconfinement period. This platform will also allow to measure the impact of COVID-19 on companies operating in Tunisia.

---

[1] <https://news.gnet.tn/tunisie-la-bad-annonce-un-soutien-financier-de-72-millions-de-dollars-en-appui-au-budget-de-la-tunisie/>

[2] <https://www.businessfrance.fr/tunisie-presentation-des-grandes-lignes-du-plan-de-relance-de-l-economie>

[3] <https://www.banquemondiale.org/fr/news/press-release/2021/03/31/tunisia-world-bank-funds-us-300-million-to-consolidate-social-safety-nets-for-children-and-poor-households>

## 6. Institutional Arrangement and Coordination

### **Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

As the GEF Implementing Agency, UNIDO is responsible for the implementation of the project, providing overall administrative management and ensuring that the project is being carried out in accordance with GEF standards and requirements. The Project Executing Entity (PEE) is the National Agency for Energy Conservation (ANME). Its mission is to design and implement the State's policy in the field of energy management: promotion of rational energy use, the development of renewable energies and the transition to more environmentally friendly energy. It is a non-administrative public institution under the administrative supervision of the Ministry of Energy, Mines and Energy Transition. During the PPG phase, the project used the HACT (Harmonized Approach to Cash Transfers) tool to conduct the assessment of the ANME and found the agency's capacity sufficient. HACT establish common principles and process for managing cash transfers among UN agencies that have adopted the approach across all countries and operational contexts.

The ANME will have a contractual agreement with UNIDO to execute all the project activities and related services under the component 1, 2 and 3. The component 4 that consists of monitoring and evaluation activities will be executed by ANME and UNIDO jointly. Monitoring is considered a day-to-day activity and as such is carried out by the ANME. UNIDO will be responsible for the MTR and the TE only. The Ministry of Environment will play an important role in the project.

Component 1 and 3: ANME will host the NEMCU. The Ministry of Environment will be the co-chairs, with the Lead Executing Entity overseeing the components activities and outputs. Stakeholders from both entities as well as other identified institutions will attend Global e-mobility Program events. Component 2: The PMU hosted by ANME will administer the bid for tender on identified pilots and coordinate other activities under the component.

Due to the cross-sectoral impacts of this project, additional entities will be involved in the delivery of specific project outputs and implementation of selected activities (see diagram below).

Overall supervision and coordination will be provided by a Project Steering Committee (PSC), which will meet at least once yearly (or as decided by the chair of the PSC). The PSC will be chaired by the Ministry of Environment. Co-financiers will be invited to sit on the PSC to ensure additional oversight of the project. The PSC will approve the annual work plans and budgets, as well as the annual progress reports. The PSC will act as an advisory mechanism to ensure the successful design and implementation of the project through providing operational guidance as well as overall, high-level coordination. Any changes/amendments proposed to the project and/or to the workplans and budgets by the PSC are done in accordance with the approved project document, the GEF policy, and UNIDO rules and regulations. Minutes of meetings are signed by UNIDO and the PSC Chairperson(s). The primary roles of the PSC are: (1) to provide overall guidance to the execution of the project; (2) to ensure good coordination among participating agencies and other organizations; and (3) to approve any substantial change or addition of new project outputs in response to the emerging issues.

A Project Management Unit (PMU) will be established by the project executing entity (PEE) and will execute the day-today activities. Generally, the PMU will implement the following tasks:

- ? Develop the annual work plans and budgets and track progress and monitoring
- ? Draft the Project Implementation Reports (PIR). UNIDO will provide oversight and guidance the submit to the GEF
- ? Execute the project activities in line with the established work plans and in close coordination with assigned executing partners and subcontractors
- ? Ensure coordination and collaborations with the Global Program and other projects with synergies
- ? Ensure public relations and communicate project results, lessons learned and success stories.

ANME's project PMU forms the secretariat of and reports to the PSC on the progress of the project.

## **Coordination**



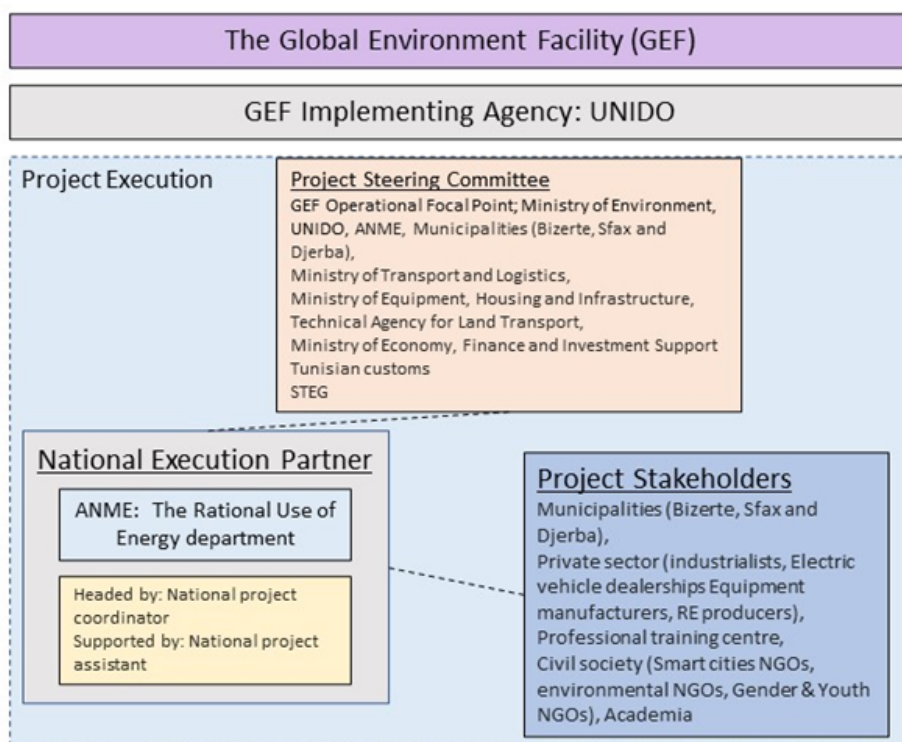


Figure 8: Institutional arrangements and flow of funds

The project will collaborate with ongoing GEF and other international and national projects in Tunisia.

The table below shows existing and planned baseline investments.

No.	Project/Programme title	Budget	Source of funding	Year	Description

1	German-Tunisian Energy Partnership	2 Million Euro for the period 2019/2022	GIZ/BMVI	2012-2022  entire project duration)	Strategic and technical collaboration in the energy sector  Secure energy supply  Promotion of renewable energy  Improving energy efficiency and grid development
2	Smart Grid programme in the Sfax region	USD 131.7 Million	STEG/AFD	2017	Installation of 400,000 smart meters in Sfax in order to monitor consumption in real time and eventually establish billing by time slot
3	Urban Development and Local Governance Program Project for Tunisia	USD 130 Million	World Bank	2018	The development objective of the Urban Development and Local Governance Program Project for Tunisia are: (i) to strengthen Local Governments' performance to deliver municipal infrastructure, and (ii) to improve access to services in targeted disadvantaged neighborhoods
4	Leapfrogging Tunisia's lighting market to high efficiency technologies (All-LED Island sub-component in Djerba)	USD 18 Million	UNEP/GEF	2021-2024	Le projet vise ? promouvoir la transformation rapide du march? tunisien aux technologies d'?clairage ?conomes en ?nergie, r?duisant ainsi la demande d'?lectricit? et la consommation li?es aux ?missions de gaz ? effet de serre.

5	Youth Economic Inclusion Project	USD 60 Million	World Bank	2017-2024	The objectives of the Project are: (a) to improve economic opportunities for targeted disadvantaged youth in the Selected Governorates of the Borrower; and (b) support the Borrower's efforts to mitigate impacts of the COVID-19 pandemic on jobs and earning losses in all Governorates.
6	Energy Sector Performance Improvement Project	USD 151 Million	World Bank	2019	The development objective of the Energy Sector Improvement Project for Tunisia is to: (i) strengthen Tunisia's electricity transmission system; and (ii) improve Tunisian Company of Electricity and Gas (STEG's) commercial performance. The project comprises of two components. The first component, strengthening the electricity transmission network will provide support for the expansion and reinforcement of Tunisia's power transmission system

7	Green Cities Facility (multi-country)	USD 585 Million	EBRD/GCF Decision B.21/34	2018	<p>Results areas of the programme:</p> <ul style="list-style-type: none"> <li>- Reduced emissions from: i) Energy access and power generation (E.g. on-grid, micro-grid or off-grid solar, wind, geothermal, etc.) ii) Low emission transport (E.g. high-speed rail, rapid bus system, etc.) iii) Buildings, cities and industries and appliances (E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.) iii) Forestry and land use (E.g. forest conservation and management, agroforestry, agricultural irrigation, water treatment and management, etc.)</li> <li>- Increased resilience of: i) Most vulnerable people and communities (E.g. mitigation of operational risk associated with climate change ? diversification of supply sources and supply chain management, relocation of manufacturing facilities and warehouses, etc.) ii) Health and well-being, and food and water security (E.g. climate-resilient crops, efficient irrigation systems, etc.) iii) Infrastructure and built environment (E.g. sea walls, resilient road networks, etc.) iii) Ecosystem and ecosystem services</li> </ul>
---	---------------------------------------	-----------------	---------------------------	------	--

9	ACTE Programme	600,000 Tunisian Dinars	Swiss Agency for Development and Cooperation	2020- 2021	It intends to strengthen the capacity of Tunisian municipalities to contribute to the national energy transition by exploiting energy efficiency and using renewable energies.
10	Installation of connected public lighting solution Ras Jbel Bizerte	0.5 million Euro	FASEP	2020	The project involves the installation of intelligent lighting in the town of Ras Djebel. 450 luminaires are installed. Progress of the project 45%.
11	Sustainable Cities 2050	20 Million DT	Ministry of Environment	2020- 2025	Implementation of city development programmes allowing in particular:  The reduction of pollution,  Carbon neutrality by 2050;  The implementation of sustainable mobility  Social and urban integration
12	Support for the adaptation of cities to climate change	8 Million DT	Ministry of Environment	2022- 2027	Support for the implementation of programmes for the resilience of cities to the impacts of climate change.

13	Programme " Goal of Energy Transition in Tunisia " -OTE-	<p>50 MEUR</p> <p>(i) 46.4MEUR : Budget support</p> <p>(ii) 2MEUR : Indirect support AFD</p> <p>(iii) 0.75MEUR : Technical Assistance ANME</p> <p>(iv) 0.35MEUR : Communication evaluation</p>	<p>Ministry of Industry and Small and Medium Enterprises ANME</p> <p>Tunisian Electricity and Gas Company, Ministry of Finance, Ministry of Development, Investment and International Cooperation</p>	(2018-2022)	This programme consists in supporting the implementation of the national strategy of Energy Transition (energy efficiency and development of renewable energies) in Tunisia.
14	<p>Cost reduction and performance improvement of Photovoltaic (PV) systems.</p> <p>-SUPER PV "H2020"-</p>	9.9 MEUR	L?Institut de recherche SINTEF (Norv?ge) - ANME,	(2018-2022)	This project consists in reducing the costs inherent to the use of renewable energies, in particular Photovoltaic (PV), by adopting innovative technologies (hybrid system) and data management methods throughout the PV value chain. A demonstration project led by ANME will be carried out in Tunisia

15	<p>Energy Transition in the Mediterranean region. (Mitigation enabling energy transition in the Mediterranean region.)</p> <p>-MEET-MED-</p>	1.6MEUR	<p>MEDENER /ANME</p> <p>RCREEE</p>	(2018-2020)	<p>This project consists of :</p> <ul style="list-style-type: none"> <li>- Supporting the energy transition in the Mediterranean region, through the promotion of energy efficiency and renewable energies and the increase of its share in the energy mix of the countries in the region;</li> <li>- Support the Union for the Mediterranean's Renewable Energy and Energy Efficiency platform through ad hoc technical inputs;</li> <li>- Mobilize the necessary technical expertise of the project partners.</li> </ul>
16	<p>NAMA Support to the Tunisian Solar Plan</p> <p>-NAMA PST-</p>	3,3 Millions \$ PNUD	<p>ANME</p> <p>MIPME</p>	(2015-2021)	<p>This project consists of supporting Tunisia in achieving its 30/30 energy transition objective, notably the production of 30% of electricity from renewable sources and the reduction of energy demand by 30% by 2030.</p>

17	The energy sector reform plan  -TUNEREP-	3.836MUSD  BM/The OPEC Fund for International Development (OFID)	Ministry of Industry and Small and Medium Enterprises ANME  Tunisian Electricity and Gas Company, Ministry of Finance, Ministry of Development, Investment and International Cooperation  And other	(2014-2021)	This project aims to create the conditions for restructuring the energy sector (institutional reforms, support measures, mobilization of Investments), in order to improve The country's energy independence through : - Strengthening the control of energy demand, - Increasing energy resources, - Exploiting the potential of renewable energies in order to diversify the energy mix.
18	Strengthening the Solar Market in Tunisia  -RMS-	7CMEUR  BMZ	ANME/GIZ	(2017-2021)	This project aims at improving the framework conditions and services in a sustainable way in Tunisia to favour investments in the photovoltaic market.
19	Energy Transition Programme in Public Buildings  Grid-connected PV + Energy Efficiency in Public Establishments)	63 MEUR  KFW / ANME	ANME/KFW	(2018 - 2023)	This project promotes the use of photovoltaics for electricity generation in the public sector
20	Support for the Promotion of Energy Efficiency in Tunisia.  -APEET	4MEUR BMZ/GIZ	ANME/GIZ	(2018-2022)	This project aims to promote the provision of services and technologies for the efficient and rational use of energy in Tunisia, taking into account the objectives set by the national energy management strategy in favour of energy efficiency.



21	Scaling-up Renewable Energy and Efficiency in the Tunisian Building Sector?  -NAMA FACILITY-	15.1MEUR  International Climate Initiative Fonds de Transition Energétique Banques internationales et locales	GIZ / ANME local banks	2019-2023	This programme entitled "PROSOL-Elec social" consists of the extension of the existing PROSOL-Elec programme (solar roofs programme) to households with low electricity consumption (small low voltage customers of the Tunisian Electricity and Gas Company "STEG", whose consumption is less than 1800 kWh/year). These consumers are in majority the most subsidized on the electricity tariff and are part of a social layer with low and average incomes. Hence the interest of this program which will reduce the energy precariousness of these households and will decrease the subsidies of the State on the electricity tariffs which are granted to them.
----	--	--	---------------------------	-----------	--

22	Project SUNREF "Sustainable Use of Natural Resources and Energy Finance in Tunisia "	73.5 MEUR AFD	AFD /ANME /ANPE	(2017-2022)	<p>The main objectives of the SUNREF Tunisia are the following:</p> <ul style="list-style-type: none"> <li>- The construction and deepening of a green finance offer promoted by Tunisian financial institutions in the energy efficiency, renewable energy and environment sector;</li> <li>- Strengthening economic competitiveness and reducing the environmental impact of industrial companies and tertiary establishments through energy control and waste / effluent management measures;</li> <li>- Institutional development and technical capacity building of the Tunisian administration services in charge of energy and environmental protection.</li> </ul>
----	--	------------------	-----------------	-------------	--

The project will coordinate with the global programme by engaging with other child projects in particular in the African region, promoting effective two-way coordination, with country representatives sharing project updates, raising challenges and sharing good practices. Stakeholders from both entities as well as other identified institutions will attend Global e-mobility Program events.

#### Transfer of Assets

Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.

#### Legal Context

The present project is governed by the provisions of the Standard Basic Cooperation Agreement between the Government of the Republic of Tunisia and UNIDO, signed on 11 May 1994 and entered into force on 20 January 1995.

#### 7. Consistency with National Priorities

**Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:**

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The project is consistent with the national strategies, plans and assessments given in the table below.

Policy	Year	Implementing Agency	Targets relevant to project activities
National Climate Change Strategy	2014	Various	<p>The national climate change strategy completed in 2014 aims at:</p> <ul style="list-style-type: none"> <li>- Social and economic development in the short term (for social and spatial rebalancing in particular) incorporating a number of safeguards in view of ecological development in the medium term (resource management, etc.),</li> <li>- A reduction target of around 60% of carbon intensity by 2030 compared to 2012 and a proactive policy for 2050 to achieve stabilization of emissions by that date,</li> <li>- A proactive and preventive adaptation policy supported by international aid within the framework of the financing and technology transfer mechanisms set up by global climate governance (green fund, etc.)</li> </ul>

Intended Nationally Determined Contribution[1] (IND C)	2015	Ministry of Environment	Tunisia's INDC 2015 commits to a 41% reduction in carbon intensity compared to 2010 levels. In the energy sector, the primary contributor to emissions, it aims to reduce carbon intensity by 46 per cent compared to 2010 levels. For this, primary energy demand should decrease by 30 per cent by 2030. The INDC also cites 1.9 billion USD in adaptation investment needs. The NDC 2015 deals with the transport sector in the framework of energy efficiency without specifying electric mobility, however the NDC under development (November 2020- July 2021) integrates electric mobility. In addition, Tunisia being a member of the NDC partnership, has included a section on electric mobility in the NDC partnership plan. The GEF e-mobility project is integrated in it.
Nationally Appropriate Mitigation Actions (NAMAs)[2]	2011-Present	Various	Tunisia has put forth NAMAs on the following topics: Solar energy (as outlined below in the TSP), emissions reductions in waste management, energy efficiency in the building sector, emissions reductions in cement production, and forest regeneration.
National Strategy on Climate Change (NSCC)[3]	2012	Ministry of the Environment	The Strategy outlines Tunisia's climate risk to water resources, coastlines, ecosystems, agriculture, health, desertification, tourism, and urbanization. It lays out climate vulnerability and emissions scenarios and potential response pathways. The national climate change strategy completed in 2014 aims at: - Social and economic development in the short term (for social and spatial rebalancing in particular) incorporating a number of safeguards in view of ecological development in the medium term (resource management, etc.), - A reduction target of around 60% of carbon intensity by 2030 compared to 2012 and a proactive policy for 2050 to achieve stabilization of emissions by that date, - A proactive and preventive adaptation policy supported by international aid within the framework of the financing and technology transfer mechanisms set up by global climate governance (green fund, etc.)

Sustainable development strategy	2013	Various	<p>Tunisia sustainable development strategy has defined 8 main axes:</p> <ol style="list-style-type: none"> <li>1- Establish sustainable consumption and production (green economy, ...)</li> <li>2- Strengthen social equity and national solidarity,</li> <li>3- Manage natural resources sustainably,</li> <li>4- Promote the quality of life of citizens,</li> <li>5- Develop sustainable cities,</li> <li>6- Manage the coastline harmoniously and sustainably,</li> <li>7- Promote sustainable transport,</li> <li>8- Rationalize energy consumption and promote new and renewable energies</li> </ol>
?Sustainable Cities 2050? strategic program		Various	<p>The country?s ?Sustainable Cities 2050? strategic program, in particular, addresses the urban environment with common operational objectives for all cities in Tunisia:</p> <ul style="list-style-type: none"> <li>? Carbon neutrality by 2050</li> <li>? Sustainable urban mobility program</li> <li>? Management program for risks related to extreme events</li> <li>? Social and urban integration</li> <li>? Decongestion of the city and its openness to its national, regional and international environment</li> <li>? An economic cachet highlighting the specificities of the city (industrial, tourism, technology, ITC, etc.)</li> <li>? An urban and landscape approach that incorporates the architectural, environment, social and economic dimensions.</li> </ul>

National Transport Master Plan for 2040	2019	Ministry of Transport	<p>The strategy outlines long-term development of the transportation sector, such as infrastructure and investments</p> <p>General strategy for the urban mobility and the main measures</p> <p>measures to be implemented</p> <ol style="list-style-type: none"> <li>1. Restructure and develop public transport provision <ul style="list-style-type: none"> <li>- Review existing urban transport lines and their adequacy to demand</li> <li>- Develop the urban transport offer</li> <li>- Develop the use of private operators in the form of a public service delegation</li> <li>- Carry out without delay the structuring projects (RFR, tramway of SFAX)</li> </ul> </li> <li>2. Improve the coordination between institutional actors <ul style="list-style-type: none"> <li>- Operationalize the National Committee for Major Projects/CIAT</li> <li>- Establish an interdepartmental official responsible for Urban Transport Authorities under the Head of Government and set up Urban Transport Authorities in Tunis, Sfax and Sousse</li> <li>- Update the PDU in the main agglomerations</li> <li>- Carry out a transport impact study for each public infrastructure project</li> </ul> </li> <li>3. Putting citizens at the heart of the urban mobility system <ul style="list-style-type: none"> <li>- Involve citizens in transport projects (infrastructure and services) through public surveys, satisfaction surveys, user panels, computer applications ...</li> </ul> </li> <li>4. Optimize the management of the road network, traffic and parking <ul style="list-style-type: none"> <li>- Develop/update a traffic plan and a parking plan in Tunis, Sfax and Sousse</li> <li>- Renovate the traffic management center in Tunis</li> </ul> </li> <li>5. Clarify the governance of public enterprises <ul style="list-style-type: none"> <li>- Establish 5-year Objective Results Contracts, including the valuation of assets</li> </ul> </li> <li>6. Set up a sustainable financing of urban transport <ul style="list-style-type: none"> <li>- Carry out an analysis of the existing situation and conduct a study on the cost of congestion</li> </ul> </li> </ol>
---	------	-----------------------	--

Tunisia Solar Plan (TSP)	2016-2020	Ministry of Industry & SMEs Ministry of Finance Ministry of Environment Ministry of the Interior	<p>The Tunisian Solar Plan aims to significantly increase the share of renewable energy in electricity generation.</p> <p>The objective of the TSP establishment is to increase the share of renewable energies in electricity generation to 12% in 2020 and 30% in 2030</p> <p>Project description (the tasks to be done)</p> <p>The Tunisian Solar Plan aims to significantly increase the share of renewable energy in electricity generation.</p> <p>The objective of the TSP establishment is to increase the share of renewable energies in electricity generation to 12% in 2020 and 30% in 2030, by switching from a production of 280 megawatts in 2015 (245 MW wind turbines and 35 MW photovoltaic PV) at 3,815 megawatts in 2030 including 1,755 MW wind, 1610 MW solar PV and 450 MW CSP (thermodynamic solar).</p> <p>To achieve these objectives, a capacity of approximately 3800 MW of RE should be installed by 2030.</p> <p>Objectives and expected results of the project (in terms of GHG mitigation)</p> <p>Objectives of the project ? TSP ? consist of:</p> <ol style="list-style-type: none"> <li>1. Diversify the energy mix.</li> <li>2. Reduce GHG emissions. The implementation of the TSP should allow a cumulative reduction of emissions of 3.6 MteqC02 over the 2016-2020 period and 33.4 MteqC02 over the 2016-2030 period.</li> <li>3. Improve the energy balance.</li> <li>4. Earn on the energy bill between 1000 and 10 000 million euros respectively over the periods 2016-2020 and 2016-2030 of currencies, thus limiting the trade deficit.</li> <li>5. Create over the 2016-2030 period, more than 8500 jobs in the construction phase and around 3000 jobs for operation and maintenance.</li> </ol> <p>Socio-economic impacts of the project</p> <p>The implementation of the project will allow:</p> <ol style="list-style-type: none"> <li>1. Improve the quality of the energy mix in Tunisia</li> <li>2. Creating jobs: Net increase in the number of employees (installers and suppliers) in</li> </ol>
--------------------------	-----------	---	---

Plan du Développement 2021-2025	Under preparation	Various	<p>Under preparation</p> <p>The five pillars on which the 2021-2025 development plan will be built are:</p> <ol style="list-style-type: none"> <li>1) Good governance and structural reforms.</li> <li>2) Transition from a low-cost economy to an international economic hub.</li> <li>3) Human development and social inclusion.</li> <li>4) Realizing the aspirations of the regions.</li> <li>5) The green economy, guaranteeing sustainable development</li> </ol>
The strategy of transition towards the green economy	2014-2030	Various	<p>The strategy of transition towards the green economy has defined quantified objectives in nine sectors of development by 2030: agriculture, water, forests, waste, energy, industry, transport, construction and tourism with a total investment volume of 33 million MDT which could contribute to the creation of more than 200 thousand jobs by 2030.</p> <p>For the transport sector, this strategy aims to :</p> <p>For the transport sector, we aim to</p> <ul style="list-style-type: none"> <li>- Increase the share of public transport to 50%.</li> <li>- Increase the share of rail/multimodal transport (RFR,...)</li> <li>- Reducing the cost of transport to 15% of GDP</li> </ul>



<p>Politique Nationale de la Mobilité Urbaine</p> <p>Plan d'Actions 2020 - 2025</p>	<p>2019</p>	<p>Ministry of Transport</p>	<p>On the basis of the vision for a sustainable urban mobility in Tunisia elaborated with the Working Group in the framework of the National Policy of Urban Mobility in Tunisia, seven strategic objectives have been identified</p> <ol style="list-style-type: none"> <li>1. Develop a more low-carbon urban mobility</li> <li>2. Improve urban accessibility for all</li> <li>3. Improve urban road safety</li> <li>4. Support decentralization in the urban mobility sector</li> <li>5. Strengthen and sustain financing for sustainable urban mobility</li> <li>6. Strengthen governance capacities and tools in the field of urban mobility</li> <li>7. Clean up, reform and improve public transport</li> </ol> <p>In response, the Working Group approved a list of nine strategic axes around which to build the National Urban Mobility Policy.</p> <ul style="list-style-type: none"> <li>- Strategic Area 1 - Improve governance of urban mobility</li> <li>- Strategic Area 2 - Develop capacity building and sectoral actions in the urban mobility sector</li> <li>- Strategic Area 3 - Structure and sustain urban mobility financing</li> <li>- Strategic Area 4 - Restructure and organize the urban public transport sector</li> <li>- Strategic Area 5 - Ensure the link between transport and urban planning</li> <li>- Strategic Area 6 - Controlling the development of the private car</li> <li>- Strategic Area 7 - Promote the development and use of active modes</li> <li>- Strategic Area 8 - Promote safer, cleaner and more inclusive urban mobility</li> <li>- Strategic Area 9 - Develop digital solutions for urban mobility</li> </ul>
---	-------------	------------------------------	--

<p>Stratégie Nationale de Maitrise de l'Energie</p>	<p>2014</p>	<p>ANME</p>	<p>The overall objective of the strategy is to ensure a sustainable energy future for Tunisia by strengthening the control of energy demand and the development of renewable energy.</p> <p>The objectives of the energy management strategy</p> <ul style="list-style-type: none"> <li>- A reduction in primary energy demand of 17% in 2020 and 34% in 2030, compared to the trend scenario.</li> <li>- A share of renewable energies, excluding biomass, in final consumption of 7% in 2020 and 12% in 2030.</li> <li>- A reduction in carbon dioxide (CO2) emissions of 48% in 2030.</li> </ul> <p>The production of electricity from renewable sources must reach 30% in 2030</p>
---	-------------	-------------	--

In addition, the project complies with the international conventions listed below:

- ? National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- ? National Action Program (NAP) under UNCCD
- ? ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury
- ? Minamata Initial Assessment (MIA) under Minamata Convention
- ? National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- ? National Communications (NC) under UNFCCC
- ? Technology Needs Assessment (TNA) under UNFCCC
- ? National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD
- ? National Implementation Plan (NIP) under POPs
- ? Poverty Reduction Strategy Paper (PRSP)
- ? National Portfolio Formulation Exercise (NPFE) under GEFSEC
- ? Biennial Update Report (BUR) under UNFCCC

---

[1]<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tunisia%20First/INDC-Tunisia-English%20Version.pdf>

[2]<http://www.nama-database.org/index.php/Tunisia>

[3][http://www.environnement.gov.tn/fileadmin/medias/pdfs/dgeqv/chang\\_climatique\\_3.pdf](http://www.environnement.gov.tn/fileadmin/medias/pdfs/dgeqv/chang_climatique_3.pdf)

## **8. Knowledge Management**

**Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.**

Following the IEO (2020)[1] the knowledge is an important resource of GEF that supports its strategic objectives to address global environmental concerns. The purpose of knowledge management (KM) is to streamline and improve the impact of UNIDO/GEF funded project in Tunisia and inform global, regional and national policy dialogues to reverse environmental problems through innovative e-mobility practices. Further on the knowledge-sharing and learning across the UNIDO partnership should be strengthened, particularly through the enhanced support for deepening the local benefits. At country level the KM consider applications to assist national policy to review specific legal and technical direction through new gains in order to consolidate achieved products and learn from other projects as a baseline for future investments.

The KM sub/component will explore the ways to create, manage and disseminate knowledge on e-mobility and environmental related issues in the project focus area and national wide. The implementation will follow a KM system that will be constantly updated throughout the project implementation period. The approach will explore different ways and processes to better manage knowledge gained and cycles, aiming at interlinking knowledge from multiple stakeholders and end-users. Communities of practice[2] and new technologies such as e-mobility and climate finance mechanism will be tailored to support collaborative and innovative exchanges.

The project will consider from its start developing a comprehensive work plan for building a knowledge management system. To that fact the following steps will be undertaken:

- ? Creation of KM team (composed with members from the project team and different central and local project partners)
- ? Preparation of detailed KM implementation plan
- ? Build KM tools easily integrated into IT platforms through an open access approach.

The project will focus on streamlining an effective KM roadmap including:

- ? Improve the information management sharing and collaboration and learning across the partners (other projects/programs, central and local project partners, national agencies active in e-mobility approaches in Tunisia)
- ? Strengthen/expand the approaches for up taking the lessons and best practices (use of UNIDO experiences and current projects)
- ? More systematically integrate knowledge capture, dissemination and learning into UNIDO/GEF project design, implementation and reporting.

In more details:

- ? Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.
- ? The project will identify and participate, as relevant and appropriate, in meetings and conferences which may be of benefit to project implementation through lessons learned. The project will identify, analyze and share lessons learned that may be beneficial in the design and implementation of similar future projects.
- ? The project will incorporate the lessons learned from similar relevant projects in Tunisia into the media coverage and marketing campaigns with the UN in Tunisia.

- ? Different tools such as creation of project website to share its activities, expected impact and the role of the civil society and private sector. Collaboration with other entities through their information exchange platform can be an added channel. Promotion through social media channels, UNIDO portal and participating in EXPOs that in addition to other tools that will be generated on later stage shall be efficient as support to knowledge management. To easily share knowledge and lessons learned within and beyond the project intervention zone, UNIDO's Open Data Platform will be used to collect relevant reports and data on technology investments projects.
  
- ? All knowledge management activities (such as workshops, trainings, awareness raising) will be gender mainstreamed. This includes integration of gender dimensions into project documents (incl. action plans), publications, for instance presenting sex-disaggregated data, gender-energy nexus theory, gender sensitive language in publications, photos showing both women and men, and avoid presenting stereotypes, as well as assuring that women, men and the youth have access to and benefit from the knowledge created.
  
- ? Continuous monitoring will be conducted throughout the project life-time. Up-to-date reports will be shared with the main stakeholders. The project will develop strategic communication plan for information exchange with the key organizations active in the area and other international organizations that can pave the way to achieving project targets and outcomes.

As a GEF Implementing Agency, UNIDO has a growing global experience (e.g., China, Philippines, Thailand, Nepal, Jordan, Albania, South Africa, Malaysia) in the implementation of e-mobility projects and the knowledge and network to be leveraged by the proposed project will consolidate knowledge of the sector within and across UNIDO projects and for global level initiatives. This approach will enable and facilitate knowledge sharing between stakeholders involved in e-mobility to provide an ongoing coordination mechanism that will remain in place beyond the project period.

Moreover, IEA and UNEP will establish four Thematic Working Groups to facilitate exchanges on technical topics between industrialized, developing and emerging countries and to serve as the major knowledge management facility for the GEF Programme and beyond. The overall objective of the Global Thematic Working Groups is to develop knowledge products, tools and trainings that will be disseminated through the Regional Support and Investment Platforms for use by decision-makers in governments and in private sector to prepare for the introduction and scale-up of electric mobility. The work is led by the IEA and UNEP and will be carried out in close collaboration with the leads of the Support and Investment Platforms, as well as the e-mobility Country Child Projects funded by the GEF and the e-mobility city projects funded by the European Commission under the EC SOLUTIONS plus project. All knowledge products developed will be made publicly and freely accessible through a joint GEF 7 / EC SOLUTIONS plus e-mobility on-line toolbox (or in some exceptional cases through the partners dedicated GEF 7 Global Electric Mobility Programme webpages).

<b>Key Deliverables</b>	<b>Timeline</b>
-------------------------	-----------------

KM team is formed up	First 3 months of the project
KM Implementation plan is developed	1st half of the project
Project website is developed and launched	1st half of the project
Strategic communication plan for information exchange with the key organizations is developed	1st half of the project
The main outcomes of key meetings and conferences are reported as news piece in the project website	After key meetings and conferences
Main results and lessons-learned from the project are reported and disseminated	Continuous throughout the project

[1] [IEO \(2020\): Evaluation of Knowledge Management in the GEF. Independent Evaluation Office of GEF, report, p.43](#)

[2] <https://saicmknowledge.org/project/chemicals-without-concern>

## 9. Monitoring and Evaluation

### Describe the budgeted M and E plan

Project monitoring and evaluation (M&E) will be conducted in accordance with established UNIDO and GEF procedures. The overall objective of the monitoring and evaluation process is to ensure successful and quality implementation of the project by:

- i) tracking and reviewing project activities execution and actual accomplishments;
- ii) providing visibility into progress as the project proceeds so that the implementation team can take early corrective action if performance deviates significantly from original plans;
- iii) adjusting and updating project strategy and implementation plan to reflect possible changes on the ground, results achieved and corrective actions taken.
- iv) Ensure linkages and harmonization of project activities with that of other related projects at national, regional and global levels.

According to the Monitoring and Evaluation policy of the GEF and UNIDO, follow-up studies like Country Portfolio Evaluations and Thematic Evaluations can be initiated and conducted. All project partners and contractors are obliged to (i) make available studies, reports and other documentation related to the project and (ii) facilitate interviews with staff involved in the project activities.

At the same time, M&E will comply with the rules and regulations governing the M&E of UNIDO technical cooperation projects, in particular the UNIDO Evaluation Policy and the Guidelines for Technical Cooperation, both in their respective current versions.

A detailed monitoring plan for tracking and reporting on project time-bound milestones and accomplishments will be prepared by the PEE and UNIDO at the beginning of project implementation and then periodically updated. By making reference to the impact and performance indicators defined in the Project Results Framework, the monitoring plan will track, report on and review project activities and accomplishments.

The PEE will be responsible for day-to-day execution and management of project activities and monitoring the execution, performance and the tracking of progress towards the achievement of milestones.

The PEE will be responsible for narrative reporting to the GEF, and the preparation of draft Annual Project Implementation Reviews (PIR) that will be submitted to the GEF by UNIDO. UNIDO will be responsible for oversight and tracking overall project milestones and progress towards the attainment of the set project outputs.

Mid-term evaluations and terminal evaluation (TE) will be prepared by an independent evaluator as established in the M&E Plan.

One mid-term review will be carried out and a final independent terminal evaluation at least one month before the completion of the project. UNIDO execute independent mid-term review and terminal evaluation of the project. The UNIDO project manager will inform UNIDO Evaluation Group at least 6 months before project completion about the expected timing for the Terminal Evaluation (TE). The UNIDO Evaluation Group will then manage the terminal evaluation in close consultation with the project manager.

All monitoring and evaluation documents, such as progress reports, terminal evaluation report, and thematic evaluations (e.g., capacity needs assessment), as well as publications reporting on the project, will include gender dimensions wherever adequate. The table below provides the tentative budget for monitoring and the two evaluations, which have been included in Output 4.1 of Project Component 4. UNIDO as the Implementing Agency will involve the GEF Operational Focal Point and project stakeholders in order to ensure the use of the evaluation results for further planning and implementation.

The M&E plan will encompass monitoring of the Gender Analysis Report and Gender Mainstreaming action plan.

#### **Project's Indicative Monitoring and Evaluation Work Plan**

<b>Type of M&amp;E Activity</b>	<b>Responsibility</b>	<b>Budget (USD)</b>	<b>Co-financing (USD) (to be distributed accordingly during execution)</b>	<b>Remarks</b>	<b>Timeframe</b>
Inception Workshop (IW) and inception report	PMU	Incl. in the contract arrangement with national			Within first two months of project start up

Type of M&E Activity	Responsibility	Budget (USD)	Co-financing (USD) (to be distributed accordingly during execution)	Remarks	Timeframe
M&E design and tools to collect and record data (performance indicators) including a survey to confirm baseline values for industry, manufacturers, policy makers, gender, etc.	PMU	execution partner (ANME)			Within first two months of project start up and mid project
Regular monitoring and analysis of performance indicators (technical, social, policy, environmental, gender)	PMU				Regularly to feed into project management and Annual Project Review
Project Implementation Reviews (PIRs) including ?lessons learned?	PMU (for data collection and drafting) and UNIDO (to final report and submission to GEF)				Annually
Annual Project Review to assess project progress and performance	PMU				Annually prior to the finalization of APR/PIR and to the definition of annual work plans
Steering Committee (SC) Meetings	PMU, UNIDO Project Steering Committee			It will be part of PMU activity	Annually to coincide with the Annual Project Review and ad hoc when urgent and important decisions need approval of SC



Type of M&E Activity	Responsibility	Budget (USD)	Co-financing (USD) (to be distributed accordingly during execution)	Remarks	Timeframe
Mid-term evaluation including survey to measure progress against baseline for investments, trainings and policy makers	PMU, external consultants, UNIDO PM, UNIDO Quality Monitoring Division (EVQQUA) in advising on TOR and selection of evaluators, Steering Committee and M&E specialists as required	50,000		Indicative cost	Mid of project
Final survey to measure progress against baseline for projects	UNIDO PM; PMU and M&E specialists as required	70,000		It will be part of PMU activity	At least two months prior to end of the project
Project Terminal Evaluation	UNIDO Independent Evaluation Division (EVQ/IEV), PMU, PM UNIDO HQ and Project Steering Committee, independent external evaluators			Indicative cost	Evaluation at least one month before the end of the project; report at the end of project implementation
Visits to field sites	PMU, UNIDO PM			It will be part of PMU activity	As required, throughout the project
<b>TOTAL indicative cost</b>		<b>120,000</b>			

## 10. Benefits

**Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?**

*Economic benefits:*

The project will have multiple socio-economic benefits at the national and local levels. These benefits will help to boost the interest of integration the EVs in Tunisia and this will contribute to global reduction in GHG emissions. So, the benefits at economic growth will be in improved energy efficiency, employment prosperity and competitive productivity. The national and local quality of air is a critical benefit to be gained by the promotion of EVs.

In gender point of view aspect, the proposed project will develop access for both women and men to safer, cleaner, and more efficient transport, thereby will increase the economic growth by minimizing travel time and ensuring reliable modes of transport.

*Social benefits:*

This project is intended to help Tunisia create additional work opportunities, develop technological skills, and thus increase revenue and improve the quality of live. The implementation of EVs would create a business environment for both men and women. In particular, the integration of electric vehicles will decrease Tunisia's dependency on gasoline will play an important role in decreasing fuel consumption and mitigating CO<sub>2</sub>, CO, PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, Volatile Organic Compounds (VOC), Particular Matter (PM).

## 11. 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/Approva l	MTR	TE
<b>Medium/Moderate</b>			

#### Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), the Environmental and Social screening template has been completed and the project has been categorized

as ??B??. Hence, an Environmental and Social Management Plan (ESMP) has been developed during the PPG phase.

<b>E&amp;S risks</b>	<b>Mitigating Measures</b>	<b>Location</b>	<b>Timeline, including frequency, start and end date</b>	<b>Responsibility</b>	<b>Cost of Mitigation (If Substantial; to be covered by project financing)</b>
<b>Risks identified during the project screening and verified during the project preparation or inception</b>					

<p>Health risks related to Covid-19 pandemic</p>	<p>Successive waves of the COVID-19 pandemic that create severe ongoing strain on health systems.</p> <p>The project will fully consider the negative implications of COVID-19 and identify the most appropriate ways to conduct implementation by using safety measures and preventive precautionary procedures. Such as organizing virtual meetings and trainings where face-to-face meetings bear health risks. The project team will be in continuous consultations with the governmental project stakeholders on how COVID-19 could impact the implementation of project activities and additional challenges that may subsequently arise due to the national pandemic restrictions. That would be pinned in the project schedule to accommodate to the prolongation of activities</p>	<p>Global</p>	<p>During project implementation</p>	<p>PEE (ANME)/PMU</p>	<p>None or not significant</p>
--	---	---------------	--------------------------------------	-----------------------	--------------------------------

<p>Generation and insufficient treatment of wastes in construction phase of pilot demonstration</p>	<p>Project designed to reduce waste generation</p> <p>Implementation of wastes collectors and evacuation of wastes to adapted treatment sites</p>	<p>Pilot demonstration sites</p>	<p>At project design</p> <p>Occasionally during pilot demonstration implementation, and more specifically at the end of works</p>	<p>PEE (ANME), Municipalities and/or pilot demonstration partners</p>	<p>Included in budget of 2.2 costs.</p>
<p>Air pollution (health risk) to workers and population in construction phase of pilot demonstration</p>	<ul style="list-style-type: none"> <li>- Adapted working hours, for air polluting activities</li> <li>- Installation of collective protection equipment, such as barriers</li> <li>- Installation of individual protection equipment: masks</li> </ul>	<p>Pilot demonstration sites</p>	<p>Occasionally during pilot demonstration implementation,</p>	<p>PEE (ANME), Municipalities and/or pilot demonstration partners</p>	<p>Included in budget of 2.2 costs.</p>
<p>Noise pollution (health risk) to workers and population in construction phase of pilot demonstration</p>	<ul style="list-style-type: none"> <li>- adapted working hours, for noisy activities, if the noise is higher than 50dB</li> <li>- ear protection for workers</li> <li>- The noise should not be higher than 85dB</li> </ul>	<p>Pilot demonstration sites</p>	<p>Occasionally during pilot demonstration implementation</p>	<p>PEE (ANME), Municipalities and/or pilot demonstration partners</p>	<p>Included in budget of 2.2 costs.</p>

<p>Accidents in construction and operational phase of pilot demonstration</p>	<ul style="list-style-type: none"> <li>- Installation of collective protection equipment, such as barriers</li> <li>- Installation of individual protection equipment: helmet, safety shoes</li> </ul>	<p>Pilot demonstration sites</p>	<p>Continuously during pilot demonstration implementation</p>	<p>PEE (ANME), Municipalities and/or pilot demonstration partners</p>	<p>Included in budget of 2.2 costs.</p>
<p>Land use in Construction and operational phase of pilot demonstration</p>	<p>The technical studies of pilot project will favour implementation with no or limited land use change (roofs, carparks, sterile lands?)</p>	<p>Pilot demonstration sites</p>	<p>Ongoing, during pilot demonstration implementation and lifetime</p>	<p>Engineering office, Municipalities</p>	<p>Included in budget of 2.2 costs.</p>
<p>Disturbance to traffic and difficulties to access risks</p>	<p>The design studies and specification of pilot demonstration will include mitigating measures (specific to each site). The works within municipalities will be design to avoid difficulties to access local services.</p>	<p>Pilot demonstration sites</p>	<p>Intermittently during pilot demonstration implementation and possibly lifetime</p>	<p>Engineering office, Municipalities</p>	<p>Included in budget of 2.2 costs.</p>

<p>Health risks from technological risks associated with EV (electroshock, fire in certain situations such as accidents?)</p>	<p>Even though the project will not directly procure equipment, technical assistance will be provided for the demonstration project (e.g., procurement plan, feasibility studies) and will consider equipment safety and quality certificates guided by UNIDO procurement policies and the best international experience on construction and operation as well as national regulations. The trainings on operating and maintenance of EVs will include health and safety measures (e.g., electrical safety).</p>	<p>Tunisia</p>	<p>Ongoing, during Project Implementation</p>	<p>PEE (ANME) and Coordination Unit (NEMCU) regarding regulation (component 1). PEE (ANME) and training organisation regarding trainings (component 3)</p>	<p>Included in output 3.1 budget</p>
---	--	----------------	---	--	--------------------------------------

<p>Potential adverse impacts of the intervention on women, e.g. due to an inequitable access to project benefits.</p>	<p>This risk will be mitigated through specifically targeting women involved in the sector for participation in consultations on policy improvements under Component 1, and for safety and other considerations under Component 2. Disaggregated data on gender participation will be collected at all meetings and other events related to the project, and targeted invitations will be made for enhanced female participation as needed. The project will follow thorough gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as civil society and non-governmental organizations promoting gender equality.</p> <p>The project team will collect and compile qualitative and quantitative gender-disaggregated data from the industries and from authorities along project</p>	<p>Tunisia</p>	<p>Continuously during project implementation</p>	<p>PEE (ANME)/PMU</p>	<p>Included in every component budget.</p>
---	--	----------------	---	-----------------------	--



Environmental impact from disposal of EV's batteries	The activity in output 1.3 will include policy recommendation to mitigate the environmental effects from EV's batteries (reuse, controlled disposal with recycling).	Tunisia	Ongoing, during and after the project implementation	PEE (ANME)/PMU	Included in budget of Output 1.3
--	--	---------	--	----------------	----------------------------------

**Supporting Documents**

Upload available ESS supporting documents.

Title	Module	Submitted
<b>ESMP e-mobility projects - Tunisia -v17-Final version</b>	<b>CEO Endorsement ESS</b>	

**ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).**

Project Strategy	Objectively verifiable indicators (quantified)	Baseline	Target/deliverables	Sources of verification
<b>PROJECT OBJECTIVE</b>	To scale up and catalyze the adoption of electric mobility across Tunisia resulting in GHG emission reductions, and position the country as a logistic hub for the region	Public transportation contributes GHG emissions. The shift to e-mobility has a significant potential to mitigate this.	<p>Cumulative direct reduction of GHG emissions by about 1,538,834 tCO<sub>2</sub>eq over the period mid 2022-mid 2037</p> <p>Indirect emission reduction is 3 581 071 tCO<sub>2</sub>eq</p> <p><b>Women: 57,590</b></p> <p><b>Men: 47, 590</b></p> <p><b>Total: 104,820</b></p>	<p>GEF project tracking tool</p> <p>Project Implementation Report</p> <p>Mid-term review report</p> <p>Terminal Evaluation report</p>
<b>Component 1: Institutionalization of low-carbon electric mobility</b>				
<b>OUTCOME 1.1</b>	Electric mobility is institutionalized in the policy framework through implementation of the National Transport Master Plan	Insufficient coordination among government stakeholders and insufficient policy framework.	Coordination between main government stakeholders increase, enabling policies are in place	

<b>Output 1.1.1</b>	National Electric mobility Coordination Unit is established	Lack of awareness on how to shift to electric mobility  Lack of coordination between different key stakeholders	National Electric Mobility Coordination Unit is created and hosted by the ANME  At least 2 meetings per year  At least 1 member is assessed as the Gender FP  At least 33% of unit members are women	Minutes of meeting  Outcome reports and stakeholders list  List of participants in meetings (gender aggregated)
<b>Output 1.1.2</b>	National strategy on electric mobility and its impact regarding climate change is developed and presented for validation by the concerned Ministries	There is no strategy defining an action plan to increase the electrification of transports and specifically the mitigation of GHG emissions in transportation, in respect with gender equality.	Time-based gender sensitive strategy and action plan are developed	Minutes of meeting with stakeholders and NGOs  A strategy report including an action plan
<b>Output 1.1.3</b>	Existing policy and regulatory frameworks reviewed and strengthened to support the deployment of EV-RE infrastructure: Policy drafted and ready for adoption	Lack of policy schemes for EV-RE integration  Lack of policy coordination  Legal and administrative barriers to e-mobility adoption	One finalized gender-responsible policy or regulatory framework is submitted for adoption/approval by the competent actor(s) to the decision making body	Policy analysis report  Minutes of meeting  Draft policy

**Component 2- Demonstration of low-carbon e-mobility solutions**

<p><b>Outcome 2.1</b></p>	<p>Potential benefits of sustainable mobility are demonstrated</p>	<p>The country has no successful implementation of a demonstration-scale pilot project for e-mobility yet.</p> <p>Dependency on fossil fuels for national energy supply.</p> <p>Strong urban growth and surge in car registrations leading to increasing GHG emissions, congestion, and air pollution.</p>	<p>Technical assistance to generate evidence on low-carbon e-mobility and scale-up strategy is delivered</p>	<p>Feasibility Studies</p> <p>Scale-up strategies</p> <p>Pipeline of investments</p> <p>Credit rating</p> <p>Promotional material</p> <p>Meeting minutes</p>
---------------------------	--	--	--	--

<p><b>Output 2.1.1</b></p>	<p>Feasibility studies for EV-RE pilot demonstrations in Bizerte, Sfax and Djerba incl. economic, social and technical aspects (localisation-optimisation research, financial mechanisms and options to support implementation) are developed</p>		<p>12 feasibility studies available including social impacts and safety measures given in the gender action plan (e.g., the measures factoring the fairness and inclusiveness dimensions for diverse women users for a comfortable, safe and useful service.)</p> <p>Final projects designs and implementation plans elaborated</p> <p>Provide transaction advisory services for the projects (procurement document preparation support, etc.)</p> <p>One scalable e-mobility investment facilitated</p>	<p>Procurement plan is developed</p>
----------------------------	---	--	--	--------------------------------------

<b>Output 2.1.2</b>	EV-RE pilot demonstrations in Sfax, Bizerte and Djerba are financed and implemented		<p>Prepare contractors? terms of references for each municipality and each type of project</p> <p>At least six pilot projects implemented</p> <p>1 training workshop and technical assistance to ensure the durability of the project and the investments (33% women participation)</p> <p>Monitoring and verification report for each pilot</p>	<p>Training Materials</p> <p>List of attendants (gender-disaggregated)</p> <p>Training report</p> <p>Minutes of Meetings</p> <p>Project progress report</p> <p>Monitoring and verification report</p>
---------------------	---	--	--	---

**Component 3- Preparing for scale-up and replication for long-term sustainability of low-carbon electric mobility**

<b>Outcome 3.1</b>	EV-RE pilot demonstrations are effectively showcased within the Global Electric Mobility Programme, resulting in new e-mobility investments	There is lack of capacity in scaling up e-mobility	<p>The capacity on e-mobility in enhanced</p> <p>Knowledge exchange with the Global Programme</p>	<p>List of attendants to the trainings</p> <p>Training curriculums</p>
--------------------	---	--	---	--

<p><b>Output 3.1.1</b></p>	<p>Tailored capacity building and pipeline development through targeted training programs on the use of tools and methodologies held in four cities in Tunisia)</p>	<p>Limited understanding of EV-RE integration at municipal/regional levels</p> <p>Lack of data/information on technical and financial aspects of e-mobility</p>	<p>Deliver a minimum of two training sessions on EV-RE integration and battery end-of-life management (minimum 33% women participation)</p> <p>Professional competency for the electric mobility uptake is strengthened through formal and informal formation mechanism (at least 2 training sessions/workshops for university students with at least 25 women university students with enhanced knowledge on E-mobility)</p> <p>Develop knowledge product targeted at integrating of EV-RE in Tunisia (also covering environmentally sound management of EV batteries)</p> <p>Assess projects? pipeline for financing options with the three municipalities targeted by the project to facilitate continued investment and accelerate scale-up</p> <p>Develop a project concept note for at least one scale-up option</p>	<p>Training needs assessment report</p> <p>Training Materials</p> <p>List of attendants (gender-disaggregated)</p> <p>Training reports including lessons learned and recommendations</p> <p>Meeting reports (gender-disaggregated)</p> <p>At least one knowledge product</p> <p>At least one assessment of projects? pipeline report</p> <p>One concept note drafted</p>
----------------------------	---	---	--	--

<b>Output 3.1.2</b>	Annual meetings and other dissemination events including the Global Electric Mobility Programme		<p>3-5 events / exchanges with the Global Programme (at least 33% women).</p> <p>Participation to Global Programme events</p> <p>Develop gender-responsive outreach material showcasing the pilot demonstrations implemented in Output 2.1.2</p> <p>Organize one scale-up event</p> <p>An Electric mobility online information platform is created</p>	<p>List of participants (gender disaggregated)</p> <p>Minutes of Meeting</p> <p>Events Reports</p>
---------------------	---	--	--	--

**Project Component 4- Monitoring and evaluation**



<p><b>Outcome 4.1</b></p>	<p>Adequate monitoring of all project indicators in line with GEF, UNIDO and Government of Tunisia (GoT) requirements</p>	<p>N/A</p>	<p>The project activities continuously monitored against the project targets and timeline</p> <p>The data below is collected during the project for all activities:</p> <ul style="list-style-type: none"> <li>- # and proportion (%) of women participated in capacity-building, workshops and events</li> <li>- # and proportion (%) of women employed by project office at a professional level and jobs created (gender-aggregated)</li> </ul> <p>All the progress reports include the progress on the implementation of the gender mainstreaming action plan</p> <p><b>Project steering committee minutes</b></p> <p><b>?Progress reports</b></p> <p><b>?Evaluation report</b></p>	<p>Progress reports (PIRs)</p> <p>MTR</p> <p>Terminal Evaluations</p>
---------------------------	---	------------	---	---

Output 4.1.1	Monitoring and independent mid-term review	N/A	<p>Project steering committee established considering the gender balance</p> <p>A project office established with each member's responsibility clearly described in job descriptions</p> <p>Project progress monitored and work plan prepared including progress reports on the gender mainstreaming action plan</p> <p>Terms of reference and contracts</p> <p>Annual project implementation reports (PIR) developed and submitted to the GEF</p> <p>Mid-term review evaluation report conducted</p>	<p>Annual PIRs</p> <p>Mid-term review (MTR) document</p>
Output 4.1.2	Independent terminal evaluation conducted	N/A	Terminal evaluation conducted by third-party independent experts according to the GEF's standard	Terminal evaluation report

**ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).**

Please refer to the uploaded Annex B which contains the below-listed four documents which are too large to introduce here:

- Annex B.1 - Responses to GEF Sec Reviews (on the PFD)
- Annex B.2 - Responses to GEF Sec Reviews (on the PFD Addendum)

- Annex B.3 - Responses to STAP comments

- Annex B.4 - Responses to Council comments

Annex B.4 - Responses to Council comments

Global Programme to Support Countries with the Shift to Electric Mobility (GEFID 10114)

? Comment by Yoshiko Motoyama, GEF Alternate Council Member, Japan, Deputy Director Global Environment Division, International Cooperation Bureau, Ministry of Foreign Affairs of Japan, Council, Japan made on 6/1/2020

The below comments from Japan were provided prior to the Council meeting. An initial agency response was provided and can be found in the list of documents specific to the project in the GEF Portal.

On single-country projects, especially with large stated co-finance ratios, and cyclical-industry-related projects, such as Project 10564 (Environmentally Sustainable Development of the Iron and Steel Industry) and Project 10544 (electric mobility addendum):

? We anticipate that participants of these projects may be severely impacted by the COVID-19 crisis. How realistic are the published co-financing arrangements to be met, and for the industry to meet the higher operating costs - - without de facto subsidization from the GEF?

Response:

The current health crisis related to COVID-19 poses some difficult challenges for the automotive sector, but also, looking more specifically at the electric vehicles segment, it offers some opportunities.

Challenges include delays related to the finalization of the design of some of the national child projects, due for instance to international travel restrictions for the specialists involved in the design and the relative consultations. Broader challenges also include depression of demand for cars, at least in the short term, and potential shift in government priorities to focus limited national budget and workforce to more pressing health- crisis related issues. At this point it is difficult to make assumptions regarding the extent to which this will affect government priorities with regards to the allocation of budget and work force. What can be said is that there is a clear case to be made for mobility to as a key pillar for sustainable and clean transportation investments in the context of economic recovery plans.

Opportunities: According to today's knowledge, there seems to be a correlation between air quality and COVID- 19, whereby COVID-19 incidence and mortality are significantly higher in areas that have high levels of local air pollution. This includes particulate matters (e.g. PM2.5, PM10)<sup>1</sup> as well as N<sub>2</sub>O from both mobile (e.g. trucks and cars) and stationary (e.g. coal power stations) emission sources . Since electric mobility has the potential to significantly contribute to improved urban air quality, we assume that it will play an important role in countries' strategies to respond to the COVID-19 pandemic.

Similarly, a shift to electric mobility will significantly reduce the dependency of countries to import petroleum petrol fuels. It therefore increases resilience against restrictions or price spikes resulting from international crisis.

While during COVID-19 vehicles sales have plummeted by half or more, electric vehicles sales have been relatively less affected. Analysts from Bloomberg New Energy Finance have estimated that the electric segment of car sales will continue to outperform in terms of growth the traditional cars one as we move past the crisis, even though oil prices at a historic low will create some negative headwinds. However, orders of buses are likely to suffer delays if public perception of mass transit as unsafe does persist.

Furthermore, in terms of green recovery, clean mobility is expected to play a key role in getting the global economy back on track. Continued social distancing measures will have an impact on how we use transportation services, and in particular public transportation, but certain modes of public transport are expected to grow, in particular in low and middle-income countries. These modes include 2&3 wheeler taxis, or usual taxis and ride- hailing providers using passenger cars, to reduce close contact with higher numbers of riders. For many of these modes good electric alternatives are available.

Based on current trends and signals it is expected that after COVID-19 the shift to electric mobility would continue, if not increase. Many city governments around the world are looking at opportunities to take advantage of the significant reduction in urban congestion linked to the COVID-19 mobility restrictions to introduce permanent limitations to the use of private vehicles, especially if internal combustion engines. Such measures will not only reduce local air pollutants (such as particulates PM2.5 and PM10, but also N2O) and carbon emissions but can also increase resilience of transport systems against the current - and any potential future - health crises. The contribution of low-carbon mobility, including electric mobility, to a more resilient economy will be further integrated in the Programme and highlighted throughout the training components to be delivered to participating countries.

? What happens to the funds/projects if some participants cease to become going concerns (=i.e. bankruptcy)?

Response:

The information presented in the project documentation (PIFs and PFDs) represents the best available information available at the time of the submission to Council, following the technical review from the GEFSEC. Some level of change in the project design and in the availability of the amount of co-financing estimated ex- ante is possible and sometimes even desirable, considering the additional in depth design analysis conducted during the project preparation phase, including through the PPG-funded activities, between the submission of PIFs/PFDs and the submission of the relative CEO ER. Co-financing arrangements and amounts specified in PIFs/PFDs are best-case estimations that GEF Implementing Agencies and National Executing entities or participating actors provide for the formulation of the project proposals. These up-front estimates are assessed as part of the GEFSEC review process in terms of their relevance and adequacy vis-?-vis the scope and objective of the proposed Project/Program activities.

Once the PIF/PFD is approved by Council, as part of the detailed design process, Agencies and actors listed as other providers of co-financing amounts are asked to reassess and formally confirm that the co-financing volumes which had been included in the PIF/PFD have been approved by the competent authority within each specific organization. This is formalized through the submission of co-financing confirmation letters. In case a specific entity is no longer able to provide the previously stated co-financing amount, either in full or in part, generally Implementing Agency and GEFSEC would work together to assess if the stated co-financing is essential to achieve the project/program's objective. If so, GEFSEC and Agency assess if the expected amount of co-financing that is no longer available can be replaced by existing or additional co-financing from other actors. In

case the co-financing is deemed essential, and there is no possibility to source such funds that are considered necessary to achieve the stated objectives, GEFSEC and Agency would consider whether to revise the approved project/program, and if not possible/advisable the project/program would not receive CEO Endorsement.

Given that the development phase will take around 12 months, and that the COVID crisis might trigger some government support to accelerate the further uptake of electric vehicles, as we have seen in France, for example (see quote below) , we hope that the co-finance might not be such an issue in a year from now, when the CEO endorsement documents will be due for submission. In any case, if planned investments and/or co-finance becomes an issue, agencies will work with the project developers to identify other sources of co-finance that can substitute the initial set of co-financiers, while keeping the project scope. If this is not possible, the developers will try to re-adjust the scope to respond to available co-finance that is still aligned with the project objectives. If this fails as well, then the developers might wish to either postpone the project or discuss with the country if the project should/can go ahead.

? We raised at the last council our interest in verifying the ability of GEF and its accredited agencies to conduct independent audits of such contributions, including verifying and assessing the abilities of the involved parties to meet the co-financing obligations of this project. We recognize that this process --- along with many other due diligence procedures --- could be increasingly impaired by the latest COVID- 19 crisis. Detailed explanations on how the Secretariat plans to handle these types of issues would be appreciated (preferably in writing to be posted on the GEF website, as it is not clear from the existing material and guidelines on the website)

Response:

In addition to the explanation provided above on the dynamics of co-financing, co-financing is reported on a yearly basis, based on progresses related to the sourcing and use of co-financing amounts. In the case of the e- mobility Programme, the Lead Implementing Agency is UNEP. For each project implemented by UNEP, the Project Manager has responsibility to seek signed co-finance reports from each co-financier of that given project. While the co-financiers are not audited, their signed (by the authorized authority in each entity providing co- financing) co-finance reports are available for the mid-term and terminal evaluators, so that the evaluation process can assess if that given GEF project reached or not the co-finance amounts which had been estimated up-front.

? We would also like to stress the need for transparency and balanced involvement of private sector providers in any of these corporate projects (particularly highly cyclical sector projects such as the ones included in this work program in the steel and automobiles sectors), especially amid the COVID crisis, given that all such industry participants indiscriminately face severe business conditions. Projects should be carefully constructed and communicated, so that they are not deemed to infringe upon rules against subsidization of particular entities, thereby ?reinforcing the market power of some targeted companies at the expense of other firms? (as per the rules). For example, ?to de-risk investments in ....? in the project description/ objectives implies the potential of subsidization, highlighting the need for transparency in their construct and execution, so that they are visibly in line with GEF rules and regulations and the Private Sector Engagement Strategy to be adopted at this Council session. This type of crystal-clear communication/ governance insurance measure is essential for the GEF to credibly raise funding for private sector-driven projects in a tough financial environment.

Response:

We certainly acknowledge the importance of the point being raised here: all projects must be careful to run clear, fair and transparent procurement policies, which Agencies have in place for GEF projects. The recently adopted MINIMUM FIDUCIARY STANDARDS FOR GEF PARTNER AGENCIES Policy (GA/PL/02, of Dec 19, 2019), which covers both the Agency?s internal procurement policies and procurement by recipients of funds, provides that:

Specific GEF Partner Agency policies and guidelines promote economy, efficiency, transparency and fairness in procurement through written standards and procedures that specify procurement requirements, accountability, and authority to take procurement actions. As a minimum, these policies and guidelines provide for:

- o Open competition and define the situations in which other less competitive methods can be used; and
- o Wide participation through publication of business opportunities; descriptive bid/ proposal documents that disclose the evaluation criteria to be used; neutral and broad specifications; non-discriminatory participation and selection principles; and sufficient time to submit bids or proposals.

UNEP is the GEF agency leading the global e-mobility programme and will take on this guidance in the development of the global project and its own child projects and will also pass it along to all other Implementing Agencies (UNDP, UNIDO, DBSA and EBRD). Of course, the participation of private sector partners and entities is key for the e-mobility programme and UNEP and the other Implementation Agencies will continue to seek their support and participation in the program. The Program objective is to promote a shift towards electric mobility and away from Internal Combustion Engines, and as such all projects will be working with private sector partners that are actively working in this space.

In this context, it may also be useful to refer to the GEF-7 Programming Directions, para 121, as they refer to the Climate Change Focal Area:

121. To take advantage of the GEF's comparative advantage, programming under this objective does not prioritize direct support for large-scale deployment and diffusion of mitigation options with GEF financing only. Rather, GEF-7 resources should be utilized to reduce risks and enhance enabling environments in order to facilitate additional investments and support by other international financing institutions, the private sector, and/or domestic sources to replicate and scale up in a timely manner.

The global e-mobility program is responding to the GEF's grant role to support innovation and technology transfer at key early and middle stages of development, focusing on the demonstration and early deployment of innovative technologies to deliver sustainable energy solutions that control, reduce, or prevent GHG emissions.

? Comment by Kordula Mehlhart, GEF Council Member, Head of Division on Climate Finance, BMZ, Council, Germany made on 6/18/2020

Germany approves the following PIFs in the work program but asks that the following comments are taken into account:

Germany approves the addendum to the global programme that contributes to the adoption of e-mobility by strengthening the technical and financial capacities of countries and taking into account different local prerequisites and requirements.

Suggestions for improvements to be made during the drafting of the final project proposal:

? The introduction of e-buses to local public transportation fleets differs from other e-mobility forms, e.g. from heavy duty long-distance trucks, when it comes to technical aspects, charging infrastructure and the role of public / private investments. Given the unique involvement of public stakeholders in the purchase and operation of e-buses as well as the significant effect e-buses can have in terms of GHG-emission reductions in urban centres, this subject deserves a great amount of attention. Germany therefore proposes, that the significance of the acceleration of ebus adoption be reflected in the program structure, by creating an additional working group focused on e-buses in public transportation.

Response:

Many countries have prioritized the introduction of electric buses in their country projects. Often as part of their efforts to introduce mass transit/ bus rapid transit systems. There will be a key interest in developing tools about the introduction of e-buses in developing country operating environments. There are also many lessons learned and examples (good and bad) in all regions that need sharing (for example the Chile and South Africa pilots). On the other hand, no country projects have prioritized electric trucks in their projects. Generally, this sector is seen as the last sector to switch, after buses, 2&3 wheelers and light duty vehicles (with the exception of the smaller delivery trucks like vans and so). Therefore, our thinking is to focus the HDV working group on buses. With possibly (probably) a smaller sub-group focusing on electric trucks. So rather than having a buses sub-group, we want to focus the HDV working group on buses and have a sub-group on trucks.

? Germany welcomes that information exchange and knowledge management are a substantial part of the programme. We suggest establishing a close working relationship to the new TUMI (Transformative Urban Mobility Initiative) E-Bus mission. The TUMI E-Bus Mission follows a similar logic and approach in supporting cities in the uptake of e-busses. As the e-bus implementation in public transport is largely dependent on an involvement of city level decisionmakers, the TUMI E-Bus Mission can contribute to the proposed programme by feeding in local perspectives and requirements.

Response:

UNEP already has existing working relations with the Transformative Urban Mobility Initiative. Coordination with and involvement of the TUMI initiative in the global e-mobility programme will be added to the project document (especially through the activities implemented as part of the Regional Support and Investment Platforms).

? Comment by Anar Mamdani, Director, Environment Division (MSS), Global Issues and Development Branch (MFM), Global Affairs Canada, Council, Canada made on 6/26/2020

? We recommend that there be some consideration to mitigating the environmental impacts of electric vehicles, particularly where facilities for managing batteries don't exist.

Response:

Component 1 of the global e-mobility project includes a Global Thematic Working Group on "Electric vehicle charging, grid integration, renewable power supply and battery re-use, recycling and safe disposal". This Working Group's main objective will be to develop and make available knowledge materials that support governments in their ambitions for advancing a sustainable roll out of electric mobility, including policy instruments to ensure the sustainability of the battery supply chain and the end-of-life treatment of batteries. It also aims at the facilitation of discussions between regulators, recyclers and battery / vehicle manufacturers to better understand and enhance battery design to improve recyclability of batteries, especially with regards to economic viability.

In addition, Component 4 of the country child projects is usually focused on the long-term environmental sustainability of low-carbon electric mobility, which include outputs/activities to ensure/promote the environmentally sound management of used batteries (i.e. collection, re-use, recycling and disposal).

? Comment by Elizabeth Nichols, U.S. Department of State | Bureau of Oceans, International Environmental and Scientific Affairs (OES), Office of Environmental Equality and Transboundary Issues (EQT), Council, United States made on 7/2/2020

? Within Bangladesh, we recommend additionally coordinating with the State Minister for Power, Energy, and Mineral Resources, and the Dhaka North City Corporation Mayor.

Response:

Comment taken and shared with UNDP project proponents in charge of the Bangladesh child project.



This recommendation will be considered during the proposal development phase of the Bangladesh e-mobility project.

? Within Sri Lanka, there was very minimal reference to the project's stakeholders. We look forward to seeing much more clearly defined information on stakeholders and their engagement in the next stage of proposal development.

Response:

Comment taken and shared with UNEP project proponents in charge of the Sri Lanka child project. Engagement of project stakeholders will be further elaborated during the proposal development phase of the Sri Lanka e- mobility project.

? Comment by Dr Katharina Stepping, Deputy Head of Unit Climate Finance, Federal Ministry for Economic Cooperation and Development (BMZ), Council, Germany made on 6/28/2019

Germany welcomes the proposal aiming to support countries to design and implement electric mobility programs as part of an overall shift to sustainable, low carbon transport sector. Germany welcomes the proposal as the first global inter-agency electric mobility programme and appreciates that the project clearly aims at supporting the rapid introduction of electric mobility in GEF recipient countries, hereby making a contribution to the low carbon transition in the transport sector. At the same time, Germany has the following comments that it suggests be addressed in the next phase of finalizing the project proposal:

Suggestions for improvements to be made during the drafting of the final project proposal:

? Germany welcomes that the project foresees a clear role for the private sector as a supplier for electro mobility technologies. However, given that private sector investments in electric mobility will be key, Germany would welcome the inclusion of activities that specifically directed at spurring private investments in electric mobility (from the demand side). For instance, some firms have switched parts of their operations to electric fleets. These types of opportunities could be considered within the PIF.

Response:

Almost all of the Country Child Projects are geared towards the introduction of electric 2&3 wheelers (and sometimes e-passenger cars) as well as e-buses into private or government owned public transportation fleets through: 1) Awareness raising, capacity building and institutionalization of e-mobility; 2) Short term barrier removal through demonstration of e-mobility; 3.) Scale-up and replication through development of e-mobility policies, business models and financial mechanisms; and 4.) Support of environmental sustainability through battery re-use / end-of-life considerations and integration of renewable power for vehicle charging. The Country Child Projects therefore target to spur e-mobility demand in the project countries.

The Regional Support and Investment Platforms under the Global Programme will create market-place events whereby the current as well as potential new projects meet with financiers (development banks, venture capital, green funds) and e-mobility manufacturers. The idea is to bundle demand for EVs and

EV supply equipment and to raise interest from manufacturers in regions of the world, which are not yet in the focus of manufacturers, but have a great market potential.

The Global Working Groups and the Regional Supply and Investment Platforms are a means of private sector participation, and invites all major EV and EV supply equipment manufacturers to participate in events, tasks groups, etc. This also includes bringing together multinational EV and EVSE manufacturers with the vibrant mobility service provider start-up scene in low and middle-income countries.

Many Country Child Project also include work streams to incentivize the local assembly and manufacturing of e- vehicles, such as e-motorcycles and e-3wheelers.

? Germany welcomes the comprehensive and overall well-structured project design. To further facilitate an overview of the project ?s intended activities, Germany welcomes the inclusion of quantitative indications in the description of component 3 on how many pilot projects, regulatory measures etc are planned.

Response:

Each country child project includes a project results framework with quantitative indicators and end-of-project targets to measure the number of pilot projects, regulatory measures, etc., achieved/developed within the framework of the GEF project. However, at the time of submission of the Global Child Project, not all Country Child Projects (and in particular those 10 Country Child Projects submitted as part of the second round) have been finalized, and thus the exact amount of policies planned, business models envisaged and financial mechanisms to be set-up cannot not be provided.

? While the proposal provides a comprehensive overview of highly relevant initiatives and programmes, Germany welcomes including existent initiatives such as the Transformative Urban Mobility Initiative

and the C40 Cities Finance Facility as well as upcoming initiatives such as TUMIVolt to enable exchange of experiences as well as potentials for future collaboration. This is especially relevant considering the planned future expansion of the proposed project to countries like Nigeria and Mexico which are partner countries to above mentioned initiatives.

Response:

UNEP has working relations with both TUMI as well as C40 (in particular through the ?Zero Emission Bus Rapid- deployment Accelerator? (ZEBRA) initiative), and coordination with and involvement of both initiatives in the global e-mobility programme, especially through the activities implemented as part of the Regional Support and Investment Platforms, will be added to the project document.

? Germany welcomes the proposal ?s reliance on IEA scenarios to lay out the project approach. To even further increase the proposal ?s line of argument, Germany would welcome a very brief explanation on why the proposal focuses on the IEA ?s B2DS and not on the 2DS scenario when describing the programme ?s focus. This could for example be provided on page 26 in the first paragraph.

Response:

Work funded by the GEF working towards Climate Change Mitigation is related to the UNFCCC and the Climate Agreements achieved as part of the Conference of the Parties (COP). The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The IEA Beyond 2 Degree Scenario (B2DS) reflects this. Language can be added as suggested.

Comment by James Woodsome, International Economist, Office of International Development Policy, International Affairs, U.S. Department of the Treasury, Council, United States made on 7/3/2019

Feasibility. The core of this proposal for Armenia deserves further scrutiny. The claim of 5,000 electric vehicles does not fit with other statistics, for example press reports citing the Minister of Nature Protection as saying that 30 electric vehicles were imported into Armenia in 2018. While there may have been a several-fold increase in electric vehicle imports in Armenia since 2016, those imports would have started from extremely low levels. That Armenia would manufacture electric vehicles does not track with the fact there is no real manufacturing industry even for traditional petroleum fuel vehicles at present. Due to the ratcheting duties caused by incremental adoption of the Eurasian Economic Union (EAEU) common external tariff, Armenia will face steadily increasing prices for imports of cars from outside the EAEU, complicating the adoption of such technology. We encourage more background investigation before its basic feasibility can be established.

Response:

Regarding the question on Armenia, unfortunately there is a mistake with the short description of the Armenia child project baseline in Table 2 of the PFD. This will be corrected during the Child Project development and a note will be attached to the PFD to that effect. The 5,000 EVs mentioned and the local manufacturing actually belong to Ukraine. The US Council comment is right and Armenia imported about 30 EVs in 2018 ([https://energyagency.am/en/page\\_pdf/tsragri-anvanoum](https://energyagency.am/en/page_pdf/tsragri-anvanoum)). The project feasibility in Armenia will be further analyzed during development, but the government has prioritized the promotion of electric vehicles as one of the transport measures in their NDC. Armenia recently waived the VAT on EVs to stimulate the EV market (<https://energyagency.am/en/category/noroutyouunner-ev-mijocaroumner/elektromobilneri-nermoutsoumy-kazatvi-aah>). In general, high import duties for vehicles can be an opportunity rather than a barrier for EV import. In case these duties are waived or reduced for EVs (to some extent that is already the case with the VAT exemption for EVs in Armenia), it provides a meaningful monetary incentive for customers to buy electric vehicles. EV market uptake in Norway is largely due to import and registration tax exemptions for EVs, while import of conventional cars is subject to high taxes. Yerevan has instituted an exemption of parking fees for EVs and has deployed some recharging infrastructure. Armenia already has a low emissions factor of about 0.4 tons of CO<sub>2</sub>/MWh and the introduction of EVs in Armenia would be able to reduce emissions with such a grid profile, and Armenia has introduced several policies to incentivize renewable power generation investments. For example, projects have been implemented or have been committed to improve energy transmission efficiency and reliability, and investment in renewables is taking off. This GEF project aims to demonstrate light duty vehicles in a government fleet in Yerevan, and in 2019, 23 charging stations will

be installed through a GEF-6 funded Small Grant Programs implemented and led by UNDP. Promoting electric vehicles together with renewable energy will improve energy efficiency and further reduce CO2 emissions, air pollution and energy dependence in Armenia. This will be in full alignment with the countries' NDC and its strong commitment to the introduction of clean and sustainable energies.

? Comment by Lauren C?line Naville Gisn?s, NORAD, Department for Climate, Energy and Environment, Council, Norway made on 6/29/2019 ?

- ? We put great emphasis on cutting GHG emissions through electrification of the transport sector. We are of the opinion that if all take concerted action, it will drive down costs because of scale production.

- ? Every country has to choose their own path. However, an important lesson so far is that one needs to tax emissions. You need carrots and sticks. In line with general GEF principles of an enabling policy framework, one should pay attention to relevant tax policies when designing GEF programs, including policies for reducing fossil fuel subsidies.

Response:

The Child Country Projects all include work on the development of adequate policy frameworks to support the uptake of e-mobility ? including regulatory, fiscal and other local measures. For example, some of the country projects include outputs on fiscal reforms in order to base registration and / or import taxation for vehicles on CO2 emissions or fuel consumption. In some of the countries (i.e. in some of the SIDS), work will be brought forward to liberalize the power market and to allow the supply of power by independent power producers, which facilitates the introduction of renewable power generation and breaks the monopoly of subsidized petroleum fuel powered electricity generation.

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).  
(Provide detailed funding amount of the PPG activities financing status  
in the table below:**

PPG Completion report

<b>Activities</b>	<b>Verification at CEO endorsement submission</b>	<b><i>Budgeted Amount</i></b>	<b><i>Amount Spent to Date</i></b>	<b><i>Amount Committed</i></b>
Stakeholder engagement activities during PPG (consultations, workshops)	Consultation with all the relevant stakeholders conducted and the outcomes are integrated into project design.	2,000	2,000	0
Collecting and verifying the baseline data on transport and RE, on other relevant sectors/technologies and ongoing/planned initiatives, policies etc.	Completed and integrated into project document.	2,000	2,000	0

HACT based capacity assessment of proposed executing agency (ANME)	Done. Internal Self HACT assessment is conducted. The capacity of the project executing entity has been found adequate.	13,000	13,000	0
Development of the Environmental and Social Management Plan (ESMP) outlining the relevant risks as well as the mitigation measures ESMP for the project	Completed. ESMP is developed and shared along with the submission package.	3,000	2,000	1,000
Description of the project implementation/execution modalities and agencies (incl. drafting TOR for contractual arrangements on the role of the executing agency)	Done. ToR for national execution is developed, the internal comments are integrated.	2,000	2,000	0
Pre-feasibility studies to select the electric urban freight solution and determine the low-carbon transportation investments	Done. The project will provide TA assistance through e-mobility demonstration project in Djerba, Bizerte and Sfax based on the results of the pre-feasibility study developed by UNIDO and stakeholder consultations	5,000	5,000	0
Establishment of the precise nature of the EV-RE pilot demonstrations	There will be four (4) types of pilots for the municipalities: the introduction of e-bikes rental stations, charging infrastructure for EV's powered by solar PV systems, a deployment of EVs for the municipality fleet (including waste management vehicles) and the introduction of electric taxis. Each municipality defined its needs in terms of EVs in respect to its budget and strategic orientation.	2,000	2,000	0
Development Gender Analysis and Action Plan	Done. Gender Analysis and action plan is developed and shared along with the submission package.	5,000	4,000	1,000
Consolidation of all inputs into the CEO Approval Document as per GEF template	Done.	2,000	2,000	0
Obtaining of co-financing letters through consultations	Completed. All the co-financing letter are collected.	2,000	2,000	0
Calculations of Emissions avoided, Energy saved and Increase in installed renewable energy capacity targets	Done.	2,000	1,000	1,000

Stakeholder consultations and workshops to verify the CEO approval document and finalization of project document and its annexes	Done. The project team conducted inception and validation workshop along with bilateral meetings with national stakeholders.	5,000	3,736	1,524
Formal validation of the CEO approval document, UNIDO Internal review and submission to GEF Sec; preparation for project-start	Completed	5,000	4,000	1,000
Total		50,000	44,736	5,264

The remaining funds will be spent in the project start-up phase (within one year of CEO endorsement), i.e. they will be used predominantly to strengthen the capacity of and provide training to the national PEE on the project execution arrangements with due consideration of the updated GEF guidelines on the project and programme cycle policy (the training of the national PEE is directly related to project/country preparation and as such its cost is eligible to be financed from the PPG).

#### **ANNEX D: Project Map(s) and Coordinates**

**Please attach the geographical location of the project area, if possible.**

The project will scale up electric mobility in Sfax, Bizerte and Djerba:

- **Sfax:** 34.74N, 10.76E
- **Bizerte:** 37.27N, 9.88E
- **Djerba:** 33.8N, 10.9E



Figure 6: The five Municipalities targeted by the project

Sfax is Tunisia's major port and second largest city (population: 400,000), located on the coast about 270 km from the capital. Sfax's rapid growth has been accompanied by air pollution from industry and transportation due to congestion, and high dependency on fossil fuels.

The 'Tunisia 2020' initiative aims to make the coastal city of Bizerte (population: 143,000) a smart cities leader in Tunisia and in Africa. Municipal authorities are focused on electric mobility and sustainable tourism.

North Africa's biggest island, Djerba, (population: 163,726 as of 2016), has a large potential for electric mobility for individual and public transport. Energy consumption is driven by the growth of the tourism industry (6% per annum).

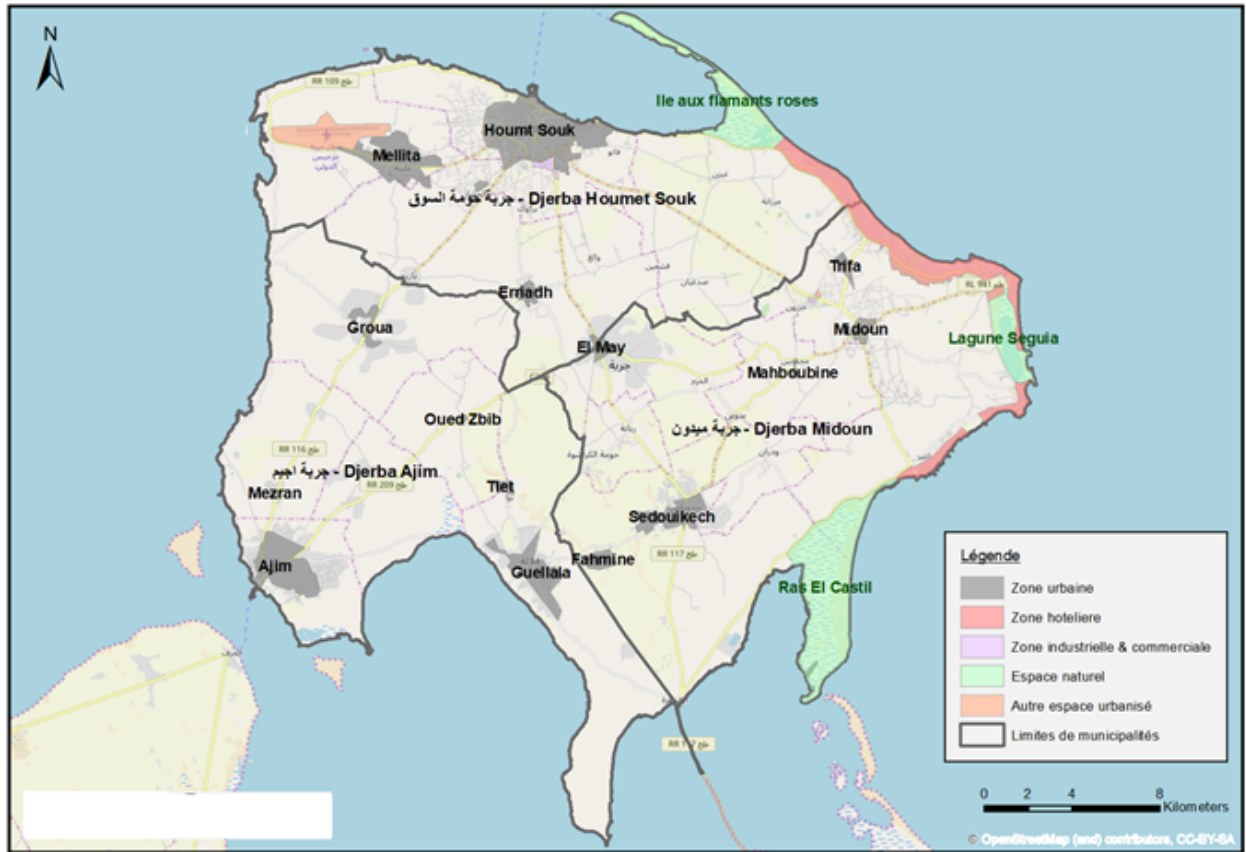


Figure 7: Djerba island

## ANNEX E: Project Budget Table

Please attach a project budget table.

This is a summary of the budget table which is too large to be introduced here. The detailed budget on activity level with more information is uploaded in Excel format as an attachment to the CEO document.

YEAR 1	Component (USD)											Sub-Total	M&E	PMC	Total (USD)	Responsible Entity
	Component 1			Component 2			Component 3		Component 4							
	Outcome 1.1			Outcome 2.1			Outcome 3.1		Outcome 4.1							
Expenditure Category	Output 1.1.1	Output 1.1.2	Output 1.1.3	Output 2.1.1	Output 2.1.2	Output 2.1.3	Output 3.1.1	Output 3.1.2	Output 4.1.1	Output 4.1.2						
International consultants	0	13,600	0	32,000	0	0	5,000	0	3,000	0	50,600	3,000	0	56,600	ANME	
National Experts	3,000	13,600	0	32,000	0	0	5,000	0	3,000	0	53,600	3,000	23,452	59,600	ANME	
Travel	0	3,400	0	8,000	0	0	0	12,000	750	0	23,400	750	3,000	24,900	ANME	
Equipment	0	0	0	0	0	0	0	0	0	0	0	0	4,000	0	ANME	
Workshops/training	1,900	0	0	0	0	0	5,000	0	750	0	6,900	750	2,000	8,400	ANME	
Subcontracts	11,100	3,400	0	8,000	0	0	0	6,000	0	0	28,500	0	0	28,500	ANME	
	16,000,00	34,000,00	0,00	80,000,00	0,00	0,00	15,000,00	18,000,00	7,500,00	0,00	163,000,00	7,500,00	32,452,00	178,000,00		



YEAR 2	Component (USD)											Sub-Total	M&E	PMC	Total (USD)	Responsible Entity
	Component 1 Outcome 1.1			Component 2 Outcome 2.1			Component 3 Outcome 3.1		Component 4 Outcome 4.1							
	Output 1.1.1	Output 1.1.2	Output 1.1.3	Output 2.1.1	Output 2.1.2	Output 2.1.3	Output 3.1.1	Output 3.1.2	Output 4.1.1	Output 4.1.2						
International consultants	0	24,400	28,000	32,000	0	0	1,000	0	3,000	0	85,400	3,000	0	91,400	ANME	
National Experts	0	24,400	28,000	32,000	0	0	1,000	0	3,000	0	85,400	3,000	29,315	91,400	ANME	
Travel	250	6,100	7,100	8,000	0	0	2,800	12,000	750	0	36,250	750	3,750	37,750	ANME	
Equipment	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0	ANME	
Workshops/training	1,150	0	800	0	0	0	32,700	0	750	0	34,650	750	2,500	36,150	ANME	
Subcontracts	2,100	6,100	7,100	8,000	0	0	500	4,000	0	0	27,800	0	0	27,800	ANME	
	3,500,00	61,000,00	71,000,00	80,000,00	0,00	0,00	38,000,00	16,000,00	7,500,00	0,00	269,500,00	7,500,00	40,565,00	284,500,00		

YEAR 3	Component (USD)											Sub-Total	M&E	PMC	Total (USD)	Responsible Entity
	Component 1 Outcome 1.1			Component 2 Outcome 2.1			Component 3 Outcome 3.1		Component 4 Outcome 4.1							
	Output 1.1.1	Output 1.1.2	Output 1.1.3	Output 2.1.1	Output 2.1.2	Output 2.1.3	Output 3.1.1	Output 3.1.2	Output 4.1.1	Output 4.1.2						
International consultants	0	0	12,000	0	50,130	0	13,500	0	8,000	0	75,630	8,000	0	91,630	ANME, UNDO for MTA	
National Experts	0	0	12,000	0	50,130	0	13,500	0	8,000	0	75,630	8,000	29,315	91,630	ANME, UNDO for MTA	
Travel	250	0	4,400	0	0	0	2,800	12,000	2,000	0	19,450	2,000	3,750	23,450	ANME, UNDO for MTA	
Equipment	0	0	0	0	245,911	0	0	0	0	0	245,911	0	5,000	245,911	ANME	
Workshops/training	1,150	0	11,200	0	0	0	37,700	0	2,000	0	50,050	2,000	2,500	54,050	ANME	
Subcontracts	2,100	0	4,400	0	35,130	0	500	4,000	0	0	46,130	0	0	46,130	ANME	
	3,500,00	0,00	44,000,00	0,00	381,301,00	0,00	68,000,00	16,000,00	20,000,00	0,00	512,801,00	20,000,00	40,565,00	552,801,00		

YEAR 4	Component (USD)											Sub-Total	M&E	PMC	Total (USD)	Responsible Entity
	Component 1 Outcome 1.1			Component 2 Outcome 2.1			Component 3 Outcome 3.1		Component 4 Outcome 4.1							
	Output 1.1.1	Output 1.1.2	Output 1.1.3	Output 2.1.1	Output 2.1.2	Output 2.1.3	Output 3.1.1	Output 3.1.2	Output 4.1.1	Output 4.1.2						
International consultants	0	0	0	0	37,930	0	14,300	0	3,000	0	52,230	3,000	0	58,230	ANME	
National Experts	0	0	0	0	46,330	0	16,700	0	3,000	0	63,030	3,000	29,315	69,030	ANME	
Travel	250	0	0	0	600	0	2,400	12,000	750	0	15,250	750	3,750	16,750	ANME	
Equipment	0	0	0	0	245,911	0	0	0	0	0	245,911	0	5,000	245,911	ANME	
Workshops/training	1,150	0	0	0	4,800	0	21,600	0	750	0	27,550	750	2,500	29,050	ANME	
Subcontracts	2,100	0	0	0	35,730	0	4,500	3,000	0	0	45,330	0	0	45,330	ANME	
	3,500,00	0,00	0,00	0,00	371,301,00	0,00	59,500,00	15,000,00	7,500,00	0,00	449,301,00	7,500,00	40,565,00	464,301,00		

YEAR 5	Component (USD)											Sub-Total	M&E	PMC	Total (USD)	Responsible Entity
	Component 1 Outcome 1.1			Component 2 Outcome 2.1			Component 3 Outcome 3.1		Component 4 (M&E, not in Outcome 4.1)							
	Output 1.1.1	Output 1.1.2	Output 1.1.3	Output 2.1.1	Output 2.1.2	Output 2.1.3	Output 3.1.1	Output 3.1.2	Output 4.1.1	Output 4.1.2						
International consultants	0	0	0	0	1,200	0	7,200	0	3,000	28,000	8,400	31,000	0	70,400	ANME, UNDO for TE	
National Experts	0	0	0	0	4,800	0	13,800	7,500	3,000	28,000	26,100	31,000	5,863	88,100	ANME, UNDO for TE	
Travel	250	0	0	0	400	0	0	14,000	750	7,000	14,650	7,750	750	30,150	ANME, UNDO for TE	
Equipment	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	ANME	
Workshops/training	1,150	0	0	0	3,200	0	0	16,000	750	7,000	20,350	7,750	500	35,850	ANME	
Subcontracts	2,100	0	0	0	400	0	13,500	22,500	0	0	38,500	0	0	38,500	ANME	
	3,500,00	0,00	0,00	0,00	10,000,00	0,00	34,500,00	60,000,00	7,500,00	70,000,00	108,000,00	77,500,00	8,113,00	263,000,00		

**ANNEX F: (For NGI only) Termsheet**

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

not relevant

**ANNEX G: (For NGI only) Reflows**

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with

the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

not relevant

**ANNEX H: (For NGI only) Agency Capacity to generate reflows**

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

not relevant