



## **Towards a Sustainable City through Energy Efficiency in Kairouan**

### **Part I: Project Information**

**GEF ID**

**Project Type**

MSP

**Type of Trust Fund**

GET

**CBIT/NGI**

**CBIT No**

**NGI No**

**Project Title**

Towards a Sustainable City through Energy Efficiency in Kairouan

**Countries**

Tunisia

**Agency(ies)**

UNDP

**Other Executing Partner(s)**

Ministry of Environment; Municipality of Kairouan

**Executing Partner Type**

Government

**GEF Focal Area**

Climate Change

**Taxonomy**

Stakeholders, Private Sector, Individuals/Entrepreneurs, Communications, Awareness Raising, Beneficiaries, Gender Equality, Gender results areas, Capacity Development, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Knowledge Generation, Innovation, Learning, Adaptive management, Focal Areas, Climate Change, Climate Change Mitigation, Technology Transfer, Energy Efficiency, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches

**Sector**

Energy Efficiency

**Rio Markers**

**Climate Change Mitigation**

Climate Change Mitigation 1

**Climate Change Adaptation**

Climate Change Adaptation 1

**Duration**

36 In Months

**Agency Fee(\$)**

80,456.00

**Submission Date**

6/10/2022

**A. Indicative Focal/Non-Focal Area Elements**

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CCM-1-3	GET	846,906.00	1,873,000.00
<b>Total Project Cost (\$)</b>		<b>846,906.00</b>	<b>1,873,000.00</b>

## B. Indicative Project description summary

### Project Objective

To promote green buildings and efficient lighting in alignment with the objectives of the enhanced Nationally Determined Contribution, the Sustainable Development Strategy of Kairouan and the National Programme for Sustainable Cities in Tunisia.

<b>Project Component</b>	<b>Financing Type</b>	<b>Project Outcomes</b>	<b>Project Outputs</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Institutional strengthening for regulating the market for new efficient buildings	Technical Assistance	Institutional strengthening with enabling conditions, methodologies and tools for enforcing regulatory framework for new buildings	<p>Output 1.1: Design an operational manual for new building licensing and permits process in the Municipality of Kairouan to operationalise RTNB (<i>Réglementation Thermique des Nouveaux Bâtiments</i>);</p> <p>Output 1.2: Enforcement capabilities of municipality strengthened for ensuring new building compliance with RTNB;</p> <p>Output 1.3: A strategic plan is developed for developing a local value chain for ecological building materials;</p> <p>Output 1.4: Development and dissemination of an online tool for carrying out comparative socio-economic and environmental analysis of buildings using life-cycle methodology;</p> <p>Output 1.5: National standards for building</p>	GET	150,000.00	350,000.00

<b>Project Component</b>	<b>Financing Type</b>	<b>Project Outcomes</b>	<b>Project Outputs</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
Component 1: Institutional strengthening for regulating the market for new efficient buildings	Investment	Institutional strengthening with enabling conditions, methodologies and tools for enforcing regulatory framework for new buildings	Output 1.6: Proof-of-concept new municipal building adopting RTNB and ECOBat label	GET	314,458.00	825,000.00
Component 2: Energy efficient public lighting	Technical Assistance	Institutional strengthening for the implementation of an efficient municipal lighting system	Output 2.1: Capacity building of municipality staff to implement efficient lighting projects;  Output 2.2: National standards for public lighting technologies;	GET	100,000.00	48,672.00
Component 2: Energy efficient public lighting	Investment	Institutional strengthening for the implementation of an efficient municipal lighting system	Output 2.3: A smart usage system for municipal lighting demonstrated	GET	105,457.00	184,328.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 3: Knowledge management, monitoring and evaluation, and scale-up strategy	Technical Assistance	Municipal learning organisation capable to implement and manage sustainable city strategy	<p>Output 3.1 Monitoring and Evaluation (M&amp;E) and Reporting, including (i) Conducting Inception workshop and preparing report, (ii) Ongoing M&amp;E, (iii) Terminal Evaluation;</p> <p>Output 3.2: Data management system for benchmarking Kairouan City sustainability;</p> <p>Output 3.4: Lessons learnt, experiences and best practices related to the project are compiled and disseminated in other cities of Tunisia and MENA countries;</p> <p>Output 3.5: Replication plan for scaling up energy-efficient buildings and public lighting in Tunisia</p>	GET	100,000.00	327,700.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
				<b>Sub Total (\$)</b>	<b>769,915.00</b>	<b>1,735,700.00</b>
<b>Project Management Cost (PMC)</b>						
GET			76,991.00		137,300.00	
<b>Sub Total(\$)</b>			<b>76,991.00</b>		<b>137,300.00</b>	
<b>Total Project Cost(\$)</b>			<b>846,906.00</b>		<b>1,873,000.00</b>	

Please provide justification

**C. Indicative 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	Ministry of Environment	Grant	Investment mobilized	500,000.00
GEF Agency	UNDP SDG Climate Facility regional project	Grant	Investment mobilized	415,000.00
Recipient Country Government	Municipality of Kairouan	Grant	Investment mobilized	825,000.00
Recipient Country Government	Agence Nationale de Maitrise de l'Energie (ANME)	Grant	Investment mobilized	133,000.00
<b>Total Project Cost(\$)</b>				<b>1,873,000.00</b>

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

The cash co-financing from the Ministry of Environment is the contribution of the Government of Tunisia towards the implementation of the National Programme for Sustainable Cities in Tunisia; the contribution from the Municipality is from its capital budget for new constructions for new building and refurbishment projects listed in Table 1 in the body of the PIF; the grant contribution of the ANME is the financial incentive provided under the Energy Transition Fund.

**D. Indicative 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>
UNDP	GET	Tunisia	Climate Change	CC STAR Allocation	846,906	80,456	927,362.00
<b>Total GEF Resources(\$)</b>					<b>846,906.00</b>	<b>80,456.00</b>	<b>927,362.00</b>

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

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,750

<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>
UNDP	GET	Tunisia	Climate Change	CC STAR Allocation	50,000	4,750	<b>54,750.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</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)	8403	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	499000	0	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)	8,403			
Expected metric tons of CO <sub>2</sub> e (indirect)	499,000			
Anticipated start year of accounting	2023			
Duration of accounting	20			

### 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)	197,813,068			

### 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)
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**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>	94,248			
<b>Male</b>	92,752			
<b>Total</b>	187000	0	0	0

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

## Part II. Project Justification

### 1a. Project Description

#### Background (Global environmental problems, root causes and barriers to be addressed)

1. In Tunisia, as in most countries of the world, rapid urbanization is often uncontrolled. Urban growth generates many dysfunctions in cities and a deterioration of the quality of life of populations. Tunisian cities today experience several failures due to degraded infrastructure, obsolete public transport, insufficiently controlled housing, and lack of both human and material resources to operate basic social services. Added to this is the lack of decent housing, and the increase in pollution. As a result, living conditions are declining for urban communities, a situation that has grown even more since the 2011 revolution. The national macroeconomic situation (GDP-1.1%; inflation rate-4.2%; unemployment rate-15.6%; poverty rate-15.2%)\* ([\\*https://www.tn.undp.org/content/tunisia/fr/home/countryinfo/](https://www.tn.undp.org/content/tunisia/fr/home/countryinfo/) - accessed 21 September 2021) is reflected at the sub-national level (e.g. governorates, cities, communes etc.).

2. Despite the ecological potential of Tunisia, the transition towards "sustainable cities" is impeded by several environmental challenges, including: climate change, depletion of natural resources, drought, floods, waste management and industrial pollution. These environmental issues, including the increase of greenhouse gases emissions are aggravated by an exponential growth of urban populations coupled with a lack of integrated urban land use planning, among other barriers that are discussed below. To tackle these environmental challenges, including greenhouse gas emissions, the Tunisian Government is working on the National Programme for Sustainable Cities in Tunisia. This program has identified a cohort of 14 cities to implement this program, such as Zaghouan, Kasserine and Kairouan.

3. A multi-criteria analysis has been undertaken to select the location of intervention for the proposed project. The city of Kairouan has been chosen based on the corresponding size of the city and demographic dynamics (Table 1)\* (\* UNDP (n.d.) Strat?gie de d?veloppement Durable de la Ville de Kairouan 2030 ; Minist?re des Affaires Locales et de l'Environnement (2019) R?alisation d'une ?tude diagnostique sur les villes tunisiennes et proposition d'une vision strat?gique pour une ville durable). The criteria were aligned with those in the GEF7 CCM1-3 programming objective. Besides addressing climate change mitigation as discussed below, the proposed project will also have to deliver significant sustainable development co-benefits across several Sustainable Development Goals (SDGs), such as gender (high levels of illiteracy and unemployment among females) and job creation (high levels of unemployment). This is particularly important since the COVID-19 pandemic has worsened the socio-economic situation in a city like Kairouan,\* (\*GDP growth in 2020 hit a low of -8.8%.) including amplification of gender disparities. Consequently, the GEF funded project that will be formulated will also contribute to the post-COVID-19 socioeconomic recovery.

**Table 1:** Selected characteristics of the city of Kairouan

Geographic location	153 km from Tunis and 57 km from Sousse (Port); crossroads connecting north and south, and east and west; geographical coordinates (35.6712° N, 10.1005° E)
Area (km <sup>2</sup> )	47
Population (2014)	187,000
Unemployment rate (%)	18.7 (exceeding the national average) [28.25% among female population versus 14.04% among male population]
Poverty rate (%)	34,5 (largely exceeding the national average)
Illiteracy rate (%)	17.64 (exceeding national average of 13%)
Demography	Population growth of 1.6% exceeding the national average of 1%; net emigration showing lack of attractiveness of the city
Gender disparities	<ul style="list-style-type: none"> <li>- Illiteracy is more prominent among females</li> <li>- Unemployment among female population is higher despite the fact that women are more qualified</li> </ul>
Climate* (*Institut National de la Météorologie (precipitation days/humidity/sun 1961-1990, extremes 1951-2017));	<ul style="list-style-type: none"> <li>- Daily mean temperature range: 11.5°C ? 29.5°C</li> <li>- Average high temperatures: 17.2°C ? 37.7°C</li> <li>- Record high temperatures: 30.0°C ? 48.1°C</li> <li>- Average low temperatures: 6.9°C ? 22.9°C</li> <li>- Record low temperatures: -4.5°C ? 12.0°C</li> </ul>

4. **Building energy use:** There is a strong climate mitigation justification for investments in energy efficient or green buildings. The building sector is the main final energy consumer sector (37% in 2019, including biomass-energy). It is also related to the building materials industries which are among the most GHG-emitting sectors. From a value chain perspective, the building sector would represent ? from upstream to downstream ? around 50% of final energy demand in Tunisia, and at least 55% of GHG emissions attributable to energy in 2019\*. (\*Republic of Tunisia (2021) Updated Nationally Determined Contribution ? Tunisia (draft).) Out of the 13.8 MtCO<sub>2</sub> emission reductions to 2030 (relative to the business-as-usual scenario) expected from the energy sector, ~2MtCO<sub>2</sub> are expected to be obtained from energy efficiency in buildings. The selection of Kairouan as pilot city also stems from the fact that it already implementing a sustainable energy plan (PAED), implying strong buy-in and ownership of the proposed project by the local government\*. (\* EU (2013) Commune de Kairouan Plan d'action en faveur de l'énergie durable (PAED).) The emissions profile for 2010 for different economic sectors is shown in Table 2\*, (\*Updated values will be reconciled during the PIF formulation stage while engaging with stakeholders such as the National Energy Efficiency Agency (ANME) and the Governorate / Municipality of Kairouan.) and based on projections the total emissions were

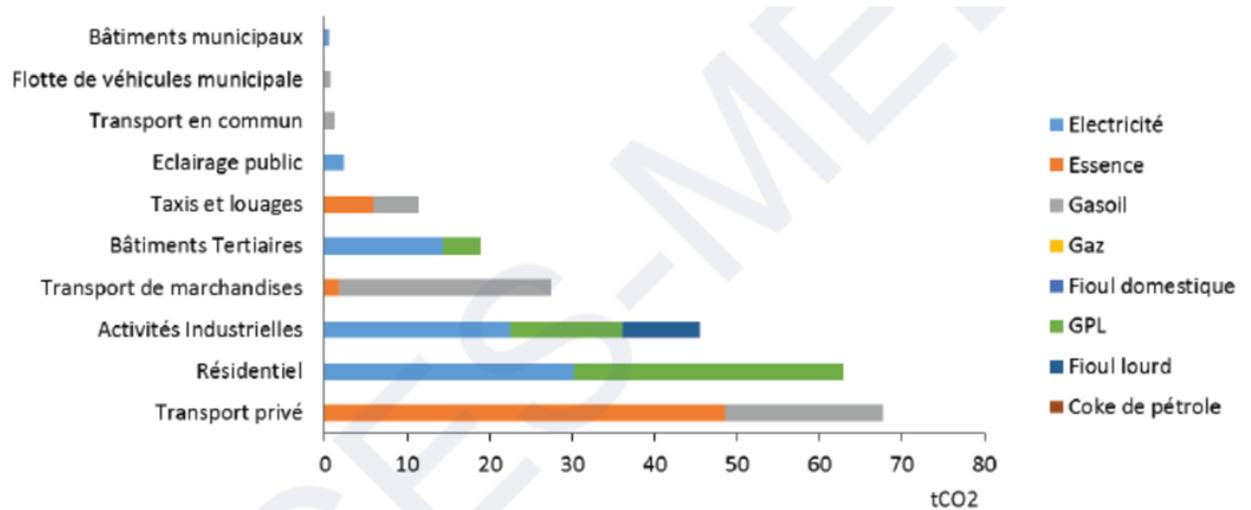
expected to reach 402,762 tCO<sub>2</sub> by 2020. As shown in Figure 1, electricity use produced around 50% of residential emissions, while buildings in the tertiary sector emitted around 20 ktCO<sub>2</sub>. In terms of primary energy consumption, the city consumed 68.5 ktoe, of which the municipality and residential sectors accounted for 0.65 ktoe and 16.76 ktoe, respectively.

**Table 2.** Emissions profile of Kairouan, 2010.

Economic Sector	Emissions, tCO <sub>2</sub>
Municipal	3,521
Residential	62,896
Tertiary	18,923
Industrial	45,404
Transport	107,577
<b>TOTAL</b>	<b>238,321</b>

**Figure 1.** Sources of emissions in Kairouan by fuel type, 2010.

(Source: PAED)



5. These data demonstrate the large potential for emissions reductions through energy efficiency in buildings. In fact, the PAED proposes a number of energy efficiency interventions in buildings, including among others: (1) energy efficiency equipment in municipal buildings; (2) demonstration of a green building through energy efficient equipment and building envelope; (3) capacity development of

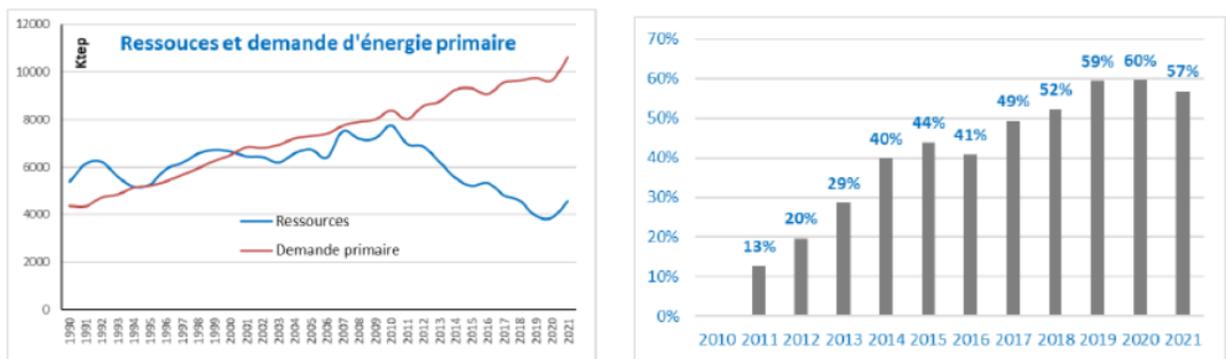
stakeholders on energy efficiency in buildings. As discussed below, the project proposes to address the PAED interventions. This approach would be aligned with the objectives of the Sustainable Development Strategy of Kairouan\*, (UNDP (n.d.) Strat?gie de d?veloppement Durable de la Ville de Kairouan 2030.) and the National Programme for Sustainable Cities in Tunisia\* (\*Minist?re des Affaires Locales et de l?Environnement (2019) R?alisation d?une ?tude diagnostique sur les villes tunisiennes et proposition d?une vision strat?gique pour une ville durable.) to develop zero emissions buildings. The proposed project is also aligned with Tunisia?s updated NDC as discussed in section 7.

6. Public lighting: Another area that is of much concern for the municipality of Kairouan is the financial burden of public lighting. The municipality would like to decrease the operational costs of street lighting through energy efficiency. In this regard, an energy audit of public lighting was carried out by the national programme Alliance des Communes Pour la Transition Energ?tique (ACTE)\*. (\*Perfect Engineering (n.d.) Rapport d?audit ?nerg?tique approfondi de l?clairage public de la Commune de KAIROUAN.) In 2019, 12.3 GWh of electricity was used for public lighting. The operational cost was 3 MDT representing 90% of the energy bill of the municipality. Using a grid emission factor of 447 tCO<sub>2</sub>/GWh,\* (\*[https://www.irena.org/IRENADocuments/Statistical\\_Profiles/Africa/Tunisia\\_Africa\\_RE\\_SP.pdf](https://www.irena.org/IRENADocuments/Statistical_Profiles/Africa/Tunisia_Africa_RE_SP.pdf) - accessed 19 May 2022.) the corresponding public lighting emissions were ~55 ktCO<sub>2</sub>.

7. Energy context: This has become an even pressing concern given the recent price inflation of imported fossil fuels, and, hence, of electricity prices, due to the global geopolitical energy conjuncture. The exposure of the local economy to the price volatility is reflected in the high level of energy import dependency of Tunisia as shown in Figure 2. In 2021, natural gas and petroleum products represented 53.3% and 26.3% of primary energy demand, respectively, while renewable energy sources accounted for only 1.3%.

**Figure 2.** (left) Primary energy demand (red) and local production (blue); (right) dependency (%) on imported fossil fuels.

(Source: Authors? elaboration)



8. Regulatory frameworks: There is a number of regulations (Table 3) that are already in place to support energy efficiency in buildings and public lighting. The project will provide human and

institutional strengthening so that the municipality of Kairouan is more capable to implement the legal provisions.

**Table 3.** Legal provisions for energy efficiency in buildings and public lighting.

Intervention	Regulation	Brief description
Energy auditing; stakeholder consultations and contractual agreements	Article 4, Law 2004-72	Mandatory energy audit for organisations with an energy use above a set threshold
	Article 5, Law 2004-72	New buildings (projects) or extensions with energy consumption forecasted to be above a threshold are verified by national agency for energy efficiency (ANME)
	Decree no. 2004-2144 and amended by decree no. 2009-2269	<ul style="list-style-type: none"> <li>- Threshold for mandatory energy audits (industry ? 800 toe/yr; transport, tertiary and residential ? 500 toe/yr; frequency of energy audit ? 5 years)</li> <li>- Threshold for extension projects (industry ? 800 toe/yr; tertiary and residential ? 200 toe/yr)</li> <li>- Auditors accredited by ANME</li> <li>- Energy audit carried out on project plan by 2 persons (engineer + architect)</li> <li>- Establishing the terms of reference of energy auditors</li> </ul>
	Regulation from Ministry of Energy date 11 June 2007	Establishing the technical requirements for energy audits of development projects in tertiary and residential sectors
Building energy codes	Article 10, Law 2009-7	Projects for the construction of new buildings and projects for the extension of existing buildings are now obliged to meet minimum technical specifications for energy efficiency, which will be set by joint decree of the Minister for Housing and the Minister for Energy.

	Joint regulation of 23 June 2008 and amended regulation of 17 December 2010	<ul style="list-style-type: none"> <li>- Lays down the minimum technical specifications to which projects for the construction of new buildings and projects for the extension of office buildings or similar purposes are subject (either performance-level or prescriptive-level approach)</li> <li>- Building thermal performance levels (public buildings: 1-3; private buildings: 1-5)</li> <li>- The prescriptive approach consists in setting the minimum technical specifications for the thermo-physical properties of the building envelope, depending on the climatic zone and the rate of the bay windows of the heated or cooled spaces, as well as their distribution over the different orientations</li> <li>- The building to be constructed or the parts of the building to be added are subject to a technical study by a consultancy firm or a specialized consulting engineer and verified and then approved by a technical controller authorized by the Ministry of Equipment, Housing and Spatial Planning</li> <li>- Any applicant of a building permit for the construction or extension of a building for office use or similar must attach to the permit application a technical sheet specifying the thermal performance of the building project according to the approach followed</li> </ul>
	Joint regulation of 1 June 2009	Lays down the minimum technical specifications for the construction of new and extension of communal residential buildings
Energy efficient public lighting	Article 11, Law 2004-72	Obligation to comply with technical specifications relating to energy saving when installing public lighting networks
	Joint regulation of 9 February 2006	The decree sets out the technical specifications of the equipment used in public lighting networks for energy saving purposes

9. Financial derisking: To promote investment in the field of energy management and facilitate the implementation of programs contributing to energy management, the Tunisian State has created the Energy Transition Fund (Fonds de Transition Energétique, FTE, replacing the National Energy Management Fund created in 2005. The FTE provides financial assistance between 30,000 and 200,000 DT (municipal scale projects) for technical assistance (e.g. feasibility studies, energy audits) related to energy efficient buildings. It also provides financial support up to 400,000 DT for efficient building materials (e.g. demonstration projects, thermal insulation).

10. Barriers: In this contextual setting, a number of barriers need to be addressed in order to enhance the adoption of energy efficiency measures in buildings and public lighting. The main barriers are summarised in the Table 4.

**Table 4.** Barriers preventing the adoption of energy efficiency in buildings and public lighting.

<b>Barrier 1: Inadequate institutional capacity at the local level to implement legal frameworks</b>
<p><u>Buildings</u></p> <p>The Municipality of Kairouan does not have the institutional capacity to operationalise the legal framework for building energy efficiency in its permit and licensing process for the approval of construction projects (new and extension to existing buildings). This is because of low level of human capacity to apply the requirements of the legal framework described in Table 3; lack of procedures and operating manuals for integrating building energy codes in permits and licensing process; lack of surveillance / enforcement capacity of the municipality; and lack of technical capacity to use modeling tools such as CLIP developed by ANME.</p> <p><u>Public lighting</u></p> <p>The Municipality of Kairouan lacks the human and institutional capacity to carry out the following: (i) formulating a business plan for efficient public lighting; (ii) developing the terms of reference for shifting to efficient lighting, including technology assessments and identifying criteria for technology selection; and (iii) implement computer-assisted management of the maintenance of the lighting network.</p>
<b>Barrier 2: Absence of pilot to demonstrate the feasibility and cost-effectiveness of energy efficient building</b>
<p>As is typically the case for energy efficiency measures, the 'taste of the pudding is in the eating'. Hence, social acceptance relies heavily on the proof-of-concept. In the prevailing baseline, and with the traditional building materials and building skills having lost their social status, there is no example of how an energy efficient building is compatible with a modern way of life. As discussed above, the proposed UNDP-GEF project could be developed around the proof-of-concept energy efficient building (building envelope using local materials, energy efficient equipment, solar thermal heating etc?)</p>
<b>Barrier 3: Lack of information on city sustainability</b>
<p>There is lack of a robust data management system to track the flows of materials in and out of the city. In the absence of verifiable data, it is difficult to support evidence-based policy-decision making. Data Standards for Sustainable Cities already exist such as the <a href="#">ISO 37120 Sustainable Development of Communities: Indicators for City Services and Quality of Life</a>. The World Council on City Data (WCCD) has developed the first International Organization for Standardization (ISO) 37120 certification system and the Global Cities Registry?,* (<a href="http://www.dataforcities.org/wccd/">*http://www.dataforcities.org/wccd/</a> - accessed 28 December 2016.) and the GEF-finance project could support Kairouan to become a member of the WCCD.</p>
<b>Barrier 4: Little use of ecological building materials (technology barrier)</b>
<p><u>Buildings</u></p> <p>The National Programme for Sustainable Cities in Tunisia has noted in the case of Kairouan that there was little use of locally available ecological building materials. The low demand implies a shrinking of the local commercial chain to make such building materials available at competitive prices, and at scale. A compounding effect is the lack of national standards for building materials. The absence of such standards hinders the application of the thermal regulation for new buildings (R?glementation Thermique des Nouveaux B?timents, RTNB).</p>

**Barrier 5: Lack of skills to work with locally-available building materials**

Buildings

The craft and workmanship with locally available construction materials is currently lacking, and it will be necessary to revitalize the traditional skills in order to support commercial value chains for producing the building materials locally and to build with the local materials.

**Barrier 6: Perception barriers**

Buildings

Lack of knowledge and negative perception of the benefits (relative to costs) of regulations and codes for energy efficiency in buildings still exist among stakeholders such as the construction industry players, the energy sector community and the general public. There is a lack of pedagogical and decision making tools widely available to the stakeholders based on lifecycle assessments. To date there has been no formal application of the ECOBat label and no capacity building and sensitization of stakeholders, including local authorities has been carried out.

**Barrier 7: Financial barriers**

Buildings and public lighting

There is concern among building developers regarding the higher upfront investment in energy efficient buildings. This situation is exacerbated by the split incentive paradox wherein the operating and maintenance costs of buildings are not borne by the developer but passed onto the owner or tenant. The Energy Transition Fund (Fonds de transition energetique, FTE) managed by ANME is necessary but not sufficient for incentivizing investments in low-energy buildings. The prohibitive cost of shifting to energy efficient lighting is shown by example of a high pressure sodium lamp costing 250 DT, whereas a LED equivalent costing 800 DT. There is a need to make low-cost commercial capital available to developers while using FTE funds as a financial derisking instrument.

Baseline scenario and associated baseline projects

11. Kairouan has been selected by the government of Tunisia as the city to showcase a transition toward sustainable cities, and the proposed small size GEF funded project fits in a broader plan from the government to pilot additional measures linked to all aspects of sustainability ? within and outside the scope of EE in buildings.

12. The Municipality of Kairouan has planned the construction of the seven buildings listed in Table 5 between 2023 and 2025. An analysis of the methods of construction in Kairouan has been carried out during PIF formulation. The structural integrity of a building is assured by steel-reinforced concrete beams and columns. The external building facade is usually double-walled with empty cavity. The wall is done using non-load bearing hollow bricks with the exterior plastered using a cement-lime mixture. The interior dividing walls are single-walled structures. The windows are single glazing mounted on aluminium frames. The flat roof is the most common model. It is composed of hollow brick or concrete and a concrete screed. In the absence of GEF-financed interventions, all new municipal buildings will be constructed using the prevailing practice just described. Similarly for public lighting,

the Municipality of Kairouan will continue to use existing lighting technologies made up high pressure sodium and mercury lamps that account for 95.5% of all city lighting.

**Table 5.** New municipal buildings planned for construction: 2023-2025.

Projects		Implementation
1	Building extension with two new floors (G+3, G+4) for the headquarter of the district of Keblia	2023
2	Building of new headquarter for the district of Khazazia with park and nursery	2023
3	Building of new headquarter for the district of Metbasta	2024
4	Refurbishment of the old headquarter for the district of Keblia into a public administrative building	2024
5	Refurbishment of the old Local Agenda 21 building in the medina into a bicycle museum	2025
6	Refurbishment of the headquarter for the district of Nasr	2025
7	Development of new municipal park (2nd phase + administrative building)	2025

There is also the SDG Climate Facility pilot project. It is under implementation and will link up and contribute to the broader goal of a joint initiative with the current GEF proposed sustainable cities-related energy efficiency project. While the GEF project focuses specifically on energy efficiency in urban settings, and the SDG Climate Facility resilience grant for Tunisia focuses on spatial planning and catalyse financing for sustainable urban solutions, these two initiatives are highly complementary as they together culminate in a cross-cutting, comprehensive sustainable cities approach for Tunisia that is expected to be catalytic in mobilizing additional finance and actors to scale up and replicate sustainable cities approaches in Tunisia in the future. The SDG Climate Facility resilience grant and the GEF-UNDP energy efficiency project will provide significant contributions towards a larger sustainable cities agenda in Tunisia. This will also support sustainability of SDG Climate Facility project results beyond project completion by building on, replicating and scaling up pilot activities through larger programmes in the future.

Alternative scenario (expected outcomes and components of the project)

13. The proposed project builds on UNDP's Urban Offer. UNDP's integrated support in this Offer coalesces around 5 areas: (1) building the capacities of cities, including for global engagement; (2) supporting the transformation of urban societies and economies to benefit all; (3) facilitating exchange of knowledge and resources (including technological) for best-fit solutions; (4) facilitating partnerships to build investment base and local digital ecosystems to support smart growth; and (5) ensuring urban

developments as integral to SDG achievement by supporting local authorities to localize the 2030 Agenda, achieve the Paris Climate commitments, and the New Urban Agenda.

UNDP adopts an integrated and multidimensional systems approach to achieve urban sustainability, inclusiveness, and resilience ? including the articulation of urban poverty into programming using metrics and tools (as framed in UNDP?s sustainable Urbanization strategy):

? Assessments: Support cities to enhance coherence across national and local planning and budgeting instruments and processes (leveraging integrated development planning and inclusive growth, local governance and local development). Enhance monitoring and reporting of urban development progress and of achieving the SDG targets.

? Thematic areas: Building on existing UNDP urban development programmes, facilitate access to lessons learned and best fit solutions on key areas for sustainable development areas, ensuring progress throughout the rural-urban continuum. This includes informal economy, circular economy, resilience-building and risk-informed development and digital transformation.

? Building capacity of municipal authorities to address targeted urban development issues using tools such as poverty data analysis, vulnerability assessments, futures analysis and scenario-building, integrated urban planning. This can relate to local management of migration and displacement, urban and community risk management, and climate change adaptation).

? Financing: Support municipal authorities to cost urban development interventions and manage finance, especially climate finance, from different local, national, and international sources, including public, private, and blended resources and innovative financing.

14. The total cost of energy efficiency interventions pledged in the updated Tunisia NDC is estimated at USD 5,755 million representing 49% of all funding required to implement measures in the energy sector. Several mitigation measures planned at the municipal level have not been implemented according to plans because of the prevailing barriers (Table 4), and particularly low levels of low-cost financing.\* (\*Solidar (2019) Evaluation du plan de d?veloppement 2016 ? 2020.) Access to climate finance is one way of circumventing shortages of local funding that has plagued measures to reduce GHG emissions in Tunisia, and the proposed project will serve as catalyst for leveraging further climate finance. Since the GEF grant is 846,906 USD and cash co-financing of USD 0.5 million are relatively small compared to investments required to transform Kairouan into a sustainable city, the proof-of-concept of a low-carbon building, while addressing barriers discussed below, could serve as template for developing a larger project intervention under the next GEF cycle or targeting the Green Climate Fund. This would be in line with government?s emphasis for a significant share of international climate finance to support conditional emission reductions in the NDC (section 7).

**15. Component 1: Institutional strengthening for regulating the market for new efficient buildings:**

In support of focusing on energy efficiency in buildings, the updated NDC notes that Tunisia intends to focus on the choice of the best energy technologies and practices for the building sector, and would

therefore need to forge international partnerships in order to develop and generalize sustainable construction techniques, materials and building materials industries. The construction sector is therefore one of the sectors on which Tunisia intends to focus on in terms of technological innovation. As discussed above, this intention is already captured in the Sustainable Development Strategy of Kairouan that has a strong cultural heritage in building construction using indigenous materials. Given climate changes (Table 1) will place more stress on thermal cooling and heating needs in buildings, the indigenous building materials and techniques could prove to be effective and efficient in the passive design of buildings. In addition to providing thermal comfort, scaling up passive design will bring strong socioeconomic benefits by reigniting a local construction industry based on locally-sourced materials, and by developing traditional building skills. Such an approach will squarely support implementation of SDG11. For this to happen, the GEF-financed project will demonstrate the proof-of-concept of an efficient building by applying the thermal regulation for new buildings (RTNB) and the EcoBAT energy label using a public building listed in Table 5. The possibility of using locally sourced materials and traditional skills will be explored. It will also strengthen the institutional capacity of the Municipality of Kairouan to issue permits and licensing process for energy efficient buildings, and, hence, to regulate the market for new efficient buildings.

16. The expected outcome from outputs proposed in Component 1 is: *?institutional strengthening with enabling conditions, methodologies and tools for enforcing regulatory framework for new buildings?*. The outputs proposed to achieve this outcome within the broader ambit of city sustainability are designed to overcome the barriers given in Table 4. The first five outputs will be through Technical Assistance, and Output 2.7 will be of Investment-type. Outputs 1.1, 1.2, 1.3 and 1.6 will be implemented in the City of Kairouan. Outputs 1.4 and 1.5 will be applicable at the national levels and supportive of local level interventions. The outputs are:

? *Output 1.1: Design an operational manual for new building licensing and permits process to operationalise RTNB* ? The Municipality is responsible for issuing building permits and licenses for new constructions. The existing procedures do not allow the municipality to effectively integrated in the permits and licensing process. This output will review the exiting process and develop an operational manual to ensure the application of the RTNB. The staff of the municipality will be trained to apply the new process;

? *Output 1.2: Enforcement capabilities of municipality strengthened for ensuring new building compliance with RTNB* - For achieving the outcome of Component 1, the staff of the Municipality will be provided with the necessary capacity building to support enforcement of the RTNB;

? *Output 1.3: A strategic plan is developed for developing a local value chain for ecological building materials* ? The City of Kairouan has a strong cultural heritage of local building materials. However, the local value chain has waned over the years. This output will develop a strategy and action plan to support re-invigorating the local production of ecological building materials in support of the Kairouan Sustainable Development Strategy. The potential for new jobs creation will be a strong focus of the strategic plan given the relatively high rates of unemployment (Table 1);

? *Output 1.4: Development and dissemination of an online tool for carrying out comparative socio-economic and environmental analysis of buildings using life-cycle methodology* - In order to overcome

perception and awareness barriers, online tools will be developed to justify the socio-economic and sustainable development benefits of green buildings using life-cycle analysis. The tool will be used as for appraisal by investors; for green marketing by developers and professionals (to complement CLIP used in the process of obtaining building licenses and permits); and as a decision-making tool by end-users. A user-friendly interface will be designed to maximise the use of the online modeling tool by hiding all the technical details of the calculations. With this interface, the tool can also be used as a pedagogical tool for teaching and training purposes;

? *Output 1.5: National standards for building materials* ? Technical assistance will be provided to Institut National de la Normalisation et de la Propriété Industrielle (INNOPRI) for developing Tunisian standards for building materials; and

? *Output 1.6: Proof-of-concept new municipal building adopting RTNB and ECOBat label* ? All of the above outputs will be contextualised and institutionalised around the proof-of-concept for a new municipal building. In anticipation of the start of GEF project implementation in the second half of 2023, and the timeline of new constructions listed in Table 5, the baseline project #3 (siège d'arrondissement municipal ?Metbasta?) is proposed to be enhanced to be in accordance with the RTNB. Further, the proof-of-concept will also make an application of the ECOBat label that is currently being tested by ANME. The use of locally sourced materials and traditional skills will be promoted. As per the SESP screening, a number of risks have been identified that relate to the construction of the proof-of-concept and the scaling-up of energy efficiency in new buildings (see Output 3.5). The Municipality of Kairouan will carry out a ESIA for the municipal building in Metbasta as is expected in the baseline as per national legislation. In order to address the risks, an Environmental and Social Management Framework (ESMF) will be formulated at PPG stage to guide the implementation of the ESIA. Given the relatively high unemployment level in Kairouan, all jobs created from this output will favour local manpower. Also, the use of traditional skills implies that the jobs will be locally sourced. Hence, there will be no influx of workers from outside Kairouan due to project activities.

## 17. **Component 2: Energy efficient public lighting:**

This component will deal with the barriers that prevent the adoption and scaling up of efficient technologies for public lighting. While this component will deliver reductions in the emission of greenhouse gases, it will deal with the main concern of high operational costs of the Municipality. The expected outcome is: *institutional strengthening for the implementation of an efficient municipal lighting system?*, and it will be achieved through the following outputs:

? *Output 2.1: Capacity building of municipality staff to implement efficient lighting projects* ? As indicated in Table 4, the Municipality does not have the technical capacity to make the business case, including technical specifications for efficient public lighting. Training will be provided to municipal staff for: (i) formulating a business plan for efficient public lighting; and (ii) developing the terms of reference for shifting to efficient lighting, including technology assessments and identifying criteria for technology selection. A strategic plan will also be developed for replacing all public lighting in collaboration with ACTE project (see section 6 below for details);

? *Output 2.2: National standards for public lighting technologies* - Technical assistance will be provided to Institut National de la Normalisation et de la Propriété Industrielle (INNOPRI) for developing Tunisian standards for efficient public lighting technologies; and

? *Output 2.3: A smart usage system for municipal lighting demonstrated* ? GEF funding will be used (i) to propose a more efficient computer-assisted lighting management system, and (ii) to implement energy efficient and site appropriate lighting technology implemented (e.g. LEDs). It is proposed to replace at market value 1,000 units (i.e. 11% of total) of 150 W high pressure sodium lamps with LEDs. The ESMF will propose a waste management procedure for collecting, transporting, storing and disposing obsolete lamps in an environmentally-sound way.

### **18. Component 3: Knowledge management, monitoring and evaluation, and scale-up strategy:**

The third component addresses outreach, and capturing and dissemination of results for scaling up the results of the proposed project. It also seeks to ensure adequate monitoring and evaluation (M&E) of the project to support adaptive project management. Emphasis is placed on the use of enablers of institutional learning on all aspects of operationalisation of the building energy code for new buildings (RTNB) and the ECOBat energy label for buildings, and outdoor efficient lighting in the city of Kairouan to support knowledge management and approaches for scaling up sustainable cities in Tunisia. Since the Sustainable Development Strategy of Kairouan goes well beyond issues related to energy efficiency, the GEF project will also put in place a framework for sustainable city data management system to support evidence-based decision making, and for monitoring & evaluation purposes. The outcome is: *?Municipal learning organisation capable to implement and manage sustainable city strategy?.*

? *Output 3.1: Output 3.1 Monitoring and Evaluation (M&E) and Reporting, including (i) Conducting Inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid-Term Evaluation and (iv) Terminal Evaluation* - An inception workshop will be planned within 60 days of project CEO endorsement. Adaptive management is a prerequisite for successful project implementation. This output will monitor the results framework and GEF core indicators; project plans (e.g. Stakeholder Engagement Plan, Gender Action Plan and Risk Register), and Social and Environmental Safeguards. Also, independent evaluations will be carried out at the mid-term and at the end of the project as per standard UNDP-GEF procedures. The financials of the project will also be verified by an independent accredited auditor on an annual basis;

? *Output 3.2: Data management system for benchmarking Kairouan City sustainability* ? The project will support the City of Kairouan to become a member of the World Council on City Data (WCCD)\* ([\\*https://www.dataforcities.org/](https://www.dataforcities.org/) - accessed 23 May 2022.), and to adopt [ISO 37120 \(Sustainable Development of Communities: Indicators for City Services and Quality of Life\)](#) to track progress in the implementation of the Sustainable Development Strategy. The data management system will integrate the indicators contained in the monitoring and evaluation framework for the National Programme for Sustainable Cities in Tunisia\* (\*Ministère des Affaires Locales et de l'Environnement (2020) Supports et instruments de planification, de suivi et d'évaluation des programmes de développement durable des villes tunisiennes.);

? *Output 3.3: Lessons learnt, experiences and best practices related to the project are compiled and disseminated in other cities of Tunisia and MENA countries* ? The results (lessons learnt and experiences) of the project will be captured and packaged into a knowledge product that will be disseminated inside Tunisia and more broadly in the MENA region; and

? *Output 3.4: Replication plan for scaling up energy efficient buildings and public lighting in Tunisia* ? In support of the National Programme for Sustainable Cities in Tunisia, a replication plan will be developed based on lessons learnt to scale up the project results to other cities in Tunisia. It is proposed that a Concept Note for accessing climate finance from the GCF will be developed. In designing this output, due consideration will be given at PPG stage for ensuring that all the concerns and guidance provided in the ESMF to manage project risks that can be amplified through scaling-up are taken into consideration.

#### Alignment with GEF focal area

19. The objective of the project is to promote green buildings and efficient lighting. Therefore, it is squarely aligned with the Climate Change Objective 1 - Promote innovation and technology transfer for sustainable energy breakthroughs. In particular, it relates to the entry point 3 on 'accelerating energy efficiency adoption'.

#### Incremental/additional cost reasoning; expected contributions from the baseline, the GEFTF, and co-financing

20. GEF funds will be used to support activities ? i.e. incremental investment and removing barriers listed in Table 4 ? that will not take place in the baseline and yet which will substantially enhance the prospects of both the baseline projects and follow-on projects catalyzed as a result. By the end of the project, it is expected that:

? Energy efficient street lighting implemented in the City of Kairouan;

? Proof-of-concept demonstrated for the application of the thermal energy code for new buildings, as well as the national label ECOBat for new buildings;

? Institutional mechanisms in the form of streamlined process with operational guidelines for mainstreaming the legal requirements of the RTNB in the new buildings permits and licensing process;

? National standards will be developed for construction/building materials and outdoor lighting technologies that will provide better quality assurance to end-users;

? Replication plan and bankable Concept Note to attract additional financing will be developed for scaling up of emission reductions in the building sector and street lighting in Tunisia in support of the National Programme for Sustainable Cities;

? A local value chain for the production of ecological building materials will be developed that will have strong gender-differentiated socio-economic benefits (e.g. gender-differentiated jobs);

? Lessons learned and project experience will be shared nationally and regionally to increase the impacts of the project results;

? Tools will have been developed to provide stakeholders about information about the benefits of investing in Building Energy Code; and

? The enabling conditions created by the project will have the long-term impact of catalysing national and international investments to implement the RTNB and ECOBat label, and efficient street lighting that will lead to direct and indirect emission reductions as discussed below.

Global environment benefits

21. Direct emission reductions accrue from investments in Output 2.7 (efficient building) and Output 2.3 (efficient lighting). Discussions with stakeholders have revealed that apart from the results of 2010 shown in Figure 1 and Table 2 given above, there are no up-to-date baselines for the building sector based on which the global environmental benefits (direct and indirect) of the proposed project can be calculated at PIF stage. Hence, a number of assumptions have been made at PIF stage for estimating potential emission reductions. As far as building envelope is concerned, there are a number of factors that determine energy use in buildings, such as: (1) fuels used for space heating during winter; (2) amount of electricity used for air-conditioning during summer; and (3) the impact of envelope insulation (including of flat roofs) on reducing energy consumption in buildings. The lack of baselines is related to the segmentation and fragmentation of the building sector, which of itself can be considered a barrier for addressing mitigation options\*. (\*Wynn Chi-Nguyen Cam. (2012). Technologies for Climate Change Mitigation ? Building Sector. Roskilde, Denmark: UNEP Risoe Center.) This segmentation and fragmentation relates to the fact that buildings are ubiquitous to most sectors, and it is unusual for energy consumed in buildings to be catalogued in its own right at the national level. Where it is catalogued, there is not disaggregation of data for different types of uses ? i.e. electrical equipments versus space heating and cooling. Hence, a significant task in the PPG phase will be to establish a baseline for the building sector using different modeling approaches (e.g. CLIP from ANME, Excel-based bottom up approach). In contrast, the baseline for the street lighting is well established because both the electricity consumed and the national grid emission factor is available. As referenced above, the grid emission factor is assumed to be 0.447 tCO<sub>2</sub>/MWh for the Tunisian electricity system. The parameters underlying the assumptions used for estimating direct emission reductions of 8,403 tCO<sub>2</sub> are listed in Table 6. Detailed emission reduction estimates will be undertaken during the PPG phase.

**Table 6.** Parameters used for estimating direct emission reductions.

<b>Intervention</b>	<b>Baseline parameters</b>	<b>Alternative scenarios</b>	<b>Lifetime emission reductions</b>

Building envelope	<ul style="list-style-type: none"> <li>- Assume energy consumption is 165 kWh/m<sup>2</sup>/yr (ECOBat level 7)</li> </ul>	<ul style="list-style-type: none"> <li>- New building will not use diesel for space heating and all heating and cooling will be done using grid electricity</li> <li>- Assume energy consumption is 90 kWh/m<sup>2</sup>/yr (ECOBat level 3)</li> <li>- Area of building = 5,000 m<sup>2</sup></li> <li>- Lifetime ? 25 years</li> </ul>	3,997 tCO <sub>2</sub>
Public lighting	<ul style="list-style-type: none"> <li>- High pressure sodium lamps ? 150W power rating</li> <li>- 4,317 hrs/year (11 hrs/day in summer; 13 hrs/day in winter)</li> <li>- Grid emission factor ? 0.447 tCO<sub>2</sub>/MWh</li> </ul>	<ul style="list-style-type: none"> <li>- LEDs ? 80 W power rating</li> <li>-Lifetime ? 18.5 years (80,000 hours)</li> <li>- Usage same as in baseline</li> <li>- Grid emission factor as in baseline</li> </ul>	4,406 tCO <sub>2</sub>

22. Indirect emission reductions are expected to be substantial and it has been estimated using a replication factor of 6 for new buildings (i.e. ~24,000 tCO<sub>2</sub>). For public lighting, the indirect emissions can be as high as ~25 ktCO<sub>2</sub> per year assuming that all conventional lamps can be replaced by efficient lighting technologies in the next 10 years. This will give a first estimate for indirect emission reductions of around 499,000 tCO<sub>2</sub>. The indirect emission reductions will arise from capacity development and institutional strengthening aspects of the project ? specifically:

- Establish a nation-wide replication plan that will focus mainly on public buildings and public lighting;
- Development of a bankable project concept to mobilise financial resources to scale up the application of the lessons learned and experience; and
- Dissemination of best practices;

23. Furthermore, the use of building envelope insulation is expected to reduce the need for space cooling that will lead to a reduction in the use of ozone-depleting refrigerants and GHGs such as halo carbons (CFCs and HCFCs) and hydro-fluorocarbons (HFCs). The baseline assessments that will be carried out during the PPG phase will include an estimation of the quantity of refrigerants that can be displaced by operationalisation of the RTNB and ECOBat energy label, as well as a detailed analysis of indirect emission reductions.

Innovation, sustainability and potential for scaling up

24. **Sustainability** of the project is based on the project strategy and timing, replication of the project results is also at the heart of the project strategy and design so that the project's replication strategy ensures that the project approach is distilled and actively disseminated to inform similar initiatives in Tunisia and elsewhere in the region.

The mitigation options selected will enhance sustainable development through minimising dependence on imported energy, minimising energy costs to the economy, creating new employment opportunities and improving the local environment. As noted in the key indicators and results section, the sustainable development and socioeconomic development impacts of the project will be substantial and multi-faceted. The project will specifically help the Municipality of Kairouan mitigate the additional financial obligations and income losses resulting from energy use in municipal buildings and public lighting. It is also important to note the high levels of unemployment in Kairouan. Distribution of wealth is unequal, and its young demographic means that there is a high dependency ratio of non-active individuals to workers. The project will include a robust set of key indicators to monitor the socioeconomic impacts of project interventions.

25. The **innovativeness** of the proposed project stems from migrating from a conventional, project-based approach to a city-wide transformational approach that will also include the testing and implementation of novel approaches based on local institution capacity strengthening to **scaling-up** the diffusion of energy efficiency technologies (buildings and public lighting) in Tunisia. As per Output 3.5, a country-wide replication plan, accompanied by an investment plan and bankable GCF Concept Note for mobilizing international climate finance, will be developed to support implementation of the National Programme for Sustainable Cities in Tunisia.

## 1b. Project Map and Coordinates

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

26. The project interventions will take place in the city of Kairouan that is located in the Governorate of Kairouan as shown in Figure 1\*. (\* <https://www.nationsonline.org/oneworld/map/tunisia-administrative-map.htm> - accessed 17 May 2022.) The baseline new building that will be enhanced using GEF investments will be in the municipal district of Metbasta. The locations for retrofitting public lighting will be chosen in high visibility public locations and the exact sites will be decided at PPG.

Figure 1. Map of Tunisia indicating the location of Kairouan.



← **City of Kairouan**  
(35.6712° N, 10.1005° E)

## 2. Stakeholders

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

## Indigenous Peoples and Local Communities

### Civil Society Organizations

Private Sector Entities Yes

#### If none of the above, please explain why:

27. The project concept is based on, and specifically responds to, a request from the Ministry of Environment that is both the owner of the National Programme for Sustainable Cities in Tunisia and the Climate Change Focal Point. As described above, a multi-criteria analysis was used to select the City of Kairouan for project interventions. The project is anticipated to be implemented jointly by the Ministry of Environment and the Municipality of Kairouan to strengthen national ownership, accountability and capacity development\*. (\*A PCAT and HACT micro assessments are currently on going for the ministry of environment.) Specific execution support services may be requested by the IP. Execution support needs will be determined based on a detailed PCAT and HACT micro assessments that will be undertaken at the PPG stage. If there is a need for execution support services, all options including third party arrangement will be explored. If UNDP is the best fit to provide execution support services, proper institutional arrangement will be put in place to segregate oversight functions from that of execution at the CO including enhanced oversight from the Regional Office and NCE team. If the project is to be implemented under the support to national execution modality, this arrangement will be subject to the GEF approval and if approval granted by the GEF Secretariat then a letter of agreement (LoA) will be co-signed by UNDP and the Ministry of Environment. The role of the various stakeholders is outlined in Table 7.

Table 7. Roles and responsibilities of project stakeholders

Stakeholders	Roles and responsibilities (project preparation & implementation)
Municipality of Kairouan	The Municipality of Kairouan will be the main beneficiary of the project and it will co-Chair the Project Steering Committee with the Ministry of Environment (Directorate of Sustainable Development). All project interventions will take place in the City of Kairouan. The Municipality is the local authority for issuing building licenses and permits for the construction of new buildings, and it has the mandate to ensure reliable public lighting. The project design and choice of locations for GEF investments were made in close collaboration with the Municipality. The Municipality as the main arm of local government is also the owner of the Sustainable Development Strategy of the City of Kairouan with which the GEF-financed project is aligned.

<p>Ministry of Environment (Directorate of Sustainable Development)</p>	<p>The Ministry of Environment is the National Climate Change Focal Point, and also serves as the GEF Operational Focal Point. The Directorate of Sustainable Development is the owner of the National Programme for Sustainable Cities in Tunisia, and it interacts with local authorities to support the formulation, implementation and monitoring and evaluation of sustainable development strategies in cities. The Ministry, through the Directorate, will be a joint implementing partner of the proposed project, and it will also be co-Chair of the Project Steering Committee. The Ministry is also provider of USD 1.4 million cash co-financing. The Directorate of Sustainable Development was closely involved in the design of the proposed project.</p>
<p>National Agency for Energy Conservation (Agence Nationale de Maitrise de l'Energie, ANME)</p>	<p>ANME is the technical body operating under the aegis of the Ministry of Energy, Mines and Energy Transitions to design and implement Tunisian national policy in the field of energy management. This is achieved through the promotion of sound energy usage, the development of renewable energies, and facilitating the energy transition. The ANME was instrumental in developing the RTNB and the ECOBat energy label for buildings. It also makes available tool such as CLIP. ANME is also supporting local authorities to adopt energy efficiency measures through the ACTE project (see section 6 below). It also manages the Energy Transition Fund (paragraph 9 above). The ANME is also responsible for the accreditation of energy auditors and it plays a key role in the verification process of planned energy use of new buildings or building extension (see Table 3).</p> <p>As discussed in section 6 below, ANME will be squarely involved in project implementation through support it is already providing to the City of Kairouan through the ACTE project, implementation of RTNB and application of ECOBat label, and technical specifications for building thermal insulation and energy efficient lights, among others. The ANME will also be involved in the use of the CLIP model for the analysis of energy savings from proof-of-concept building during the PPG stage.</p>
<p>Institut National de la Normalisation et de la Propriété Industrielle (IN NOPRI)</p>	<p>The Institut National de la Normalisation et de la Propriété Industrielle (INNOPRI) is a non-administrative public institution operating under the supervision of the Ministry of Industry, Energy and Small and Medium-sized enterprises. It is in charge of standardisation, product and quality systems certification, quality promotion and protection of industrial property.</p> <p>INNOPRI is, therefore, a key stakeholder for establishing standards and carrying out conformity tests for building materials and public lighting equipment. It will therefore be involved in the implementation of Output 1.6 and Output 2.3.</p>
<p>Private sector</p>	<p>The private sector plays an important role in the entire value chain for building construction starting from architectural design to construction, including the building materials supply chain. Hence, they are directly involved and impacted by the operationalization of the RTNB and the successful application of ECOBat energy label. More details are given in section 4 below. A detailed analysis will be carried out at PPG.</p>

Tunisian Green Building Council (TGBC)	The TGBC is the local chapter of the Green Building Council that supports the development of green buildings, and sustainable communities and cities in Tunisia. It has a strong pedagogical approach of coordinating public and private stakeholders and providing technical support. The TGBC is a non-profit organisation that will be involved in project implementation, especially regarding project activities to overcome perception and awareness barriers.
Development partners (EU, GIZ, USAID, Swiss Cooperation)	Bilateral development partners are supporting different initiatives in the baseline as described in section 6. These partners will be involved in the project through coordination with those baseline initiatives.
Citizens of the City of Kairouan	The citizens of the city are beneficiaries of services provided by the Municipality. For instance, they will use the municipal building that will be built at Metbasta, and they will also use the energy efficient public lighting that the project will demonstrate. As shown by the SESP screening, the local communities and citizens will also be impacted during the construction of the new building and replacement of baseline lighting technologies from various forms of pollution and waste that will be generated within the project boundary. The concerns and expectations of the citizens and local communities will be taken into account at PPG stage.

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

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

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

28. This project includes women's empowerment as one of its design elements. Table 1 shows that female unemployment and illiteracy rates are disproportionately high in the City of Kairouan. First, all institutional capacity building that will be provided by the project will ensure that a minimum 40% of women are beneficiaries. Job creation will take place mostly by re-invigorating the construction of locally available ecological building materials. The project will put in place a strategy, including appropriate training, to ensure that at least 40% of jobs created are for women. The replication plan that will be developed under Component 3 of the project will be gender-differentiated. Also, dissemination of lessons learned and knowledge products will be gendered.

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

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

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

**generating socio-economic benefits or services for women. Yes**

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

Yes

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

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

29. Architects play a critical role in the design and licensing process for new buildings. At PIF stage, the needs of architects have been analysed. There are currently about 3,000 who are registered with the Order of Architects of Tunisia and 300 who are added each year. The awareness-raising and information actions carried out by the ANME have made it possible to reach a certain number of architects, but not all of them. Some prime contractors point to the inequality of knowledge of regulation among designers: those who have received training are generally well informed about the regulations; the others have a vaguer and often incomplete knowledge. On the other hand, the architects mention that they are solicited on the building permit and then for the reattachment, but are rarely present at the stages between the two. Therefore, an architect who has not had a site supervision mission cannot know what has been installed in the walls and in the roofs. Under these conditions, only visible arrangements can be checked, such as double glazing. The private sector value chain for the local production of construction materials, as well as the value chain for energy efficient building materials in Kairouan will be mapped during PPG.

#### **5. Risks to Achieving Project Objectives**

**Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)**

30. A preliminary social and environmental screening has been done at PIF stage, and will be finalized during PPG using UNDP's Social and Environmental Safeguards policy. The risks that have been identified are listed in Table 8.

**Table 8.** Preliminary list of project risks.

Risk	Rating	Mitigation
Political Risk	Medium	<p>Since the Arab Spring, the country's socioeconomic situation has deteriorated. The discontent is especially high amongst the Tunisian youths as they resent the lack of economic opportunities. The situation has been aggravated by the Covid-19 pandemic. The difficult socioeconomic situation translates into a volatile political environment. The positive side is that the socioeconomic situation has been stabilised through intervention by the International Monetary Fund (IMF). While country-wide sovereign risks are beyond the control of the project, the proposed GEF project will have socio-economic benefits at the local level in the form of job creation and catalysing investments in energy efficiency value chains at the local level.</p>
Institutional Risk	Low	<p>As the project was initiated by the Directorate of Sustainable Development (Ministry of Environment) and the Municipality of Kairouan it is expected that they will be willing to build the capacity (if needed) for project implementation. The institutional appropriation of the proposed project is very high.</p>
Climate Change Risks	Medium	<p>The ambient temperature in Tunisia is expected to increase in the future due to climate change. As discussed, energy building codes related specifically to building envelope insulation will be an effective form of adaptation to this climate impact. The accentuated impacts of future climate change are expected to increase political interest in addressing the drivers of such change through large-scale implementation of building codes that will lead to scaling-up of mitigation actions. Updated climate projections will be used in the PPG stage.</p>
Environmental Risks	Medium	<p>The environmental impacts of implementing building energy codes, and energy efficiency measures generally, are considered to be negligible. In fact, the combustion of less fossil fuels for space heating purposes and reduced demand for electricity (implying less combustion of gas in electricity generation) are expected to have positive environmental benefits in terms of reduced emissions of non-GHGs (e.g. SO<sub>x</sub>, NO<sub>x</sub>, CO) and particulate matter.</p> <p><u>Disposal of waste</u></p> <p>The construction industry generates construction waste that needs to be collected, transported and disposed in environmentally safe ways. The same relates to the electrical waste in the form of sodium lamps that will be replaced, as well as the treatment of LED lamps at the end of life. The proposed project does not pose additional risks to what exist in the baseline.</p>

Social Risks	Medium	<p><u>Health</u></p> <p>In addition to having environmental co-benefits beyond GHG emission reductions, the reduced combustion of fossil fuels will also have beneficial health impacts. Further, the investment in applying the energy building code and efficient outdoor lighting is expected to have net positive financial returns over the lifetime of the assets. Consequently, the social acceptability of the proposed project is expected to be high in Tunisia, especially in a context of increasing prices of electricity and fossil fuel costs.</p> <p><u>Jobs</u></p> <p>The proposed project is also expected to create skilled green jobs that are a social and political priority in Kairouan. The capacity building and communication activities proposed in the project will enhance the awareness of stakeholders about the socio-economic and environmental benefits of energy efficiency measures.</p> <p><u>Labour (Occupational Health and Safety)</u></p> <p>The project involves occupational safety on construction sites, and the manipulation of construction materials. Both can have detrimental impacts on health through a variety of means like inhalation of dust particles and on-site injuries if adequate safety and health standards are not followed. There is also the risk posed with working on medium voltage electric network for public lighting. It is imperative to use protective equipment. The risks are not different in the project than it would be in the baseline.</p> <p>Please refer to the SESP for more details.</p>
Financial Risks	Low	<p>Discussions with leading private actors have shown that the financial risks associated with investing in the building energy code are low. However, it was also noted that care should be exercised to make sure that the enforcement of the code does not become a financial burden for buildings at the lower end of the market ? i.e. for the poorer segment of the population. The proposed project will actively address these risks by removing key barriers, thereby mitigating financial risks.</p>

## 6. Coordination

**Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.**

31. There are currently no GEF-financed projects in the proposed areas of interest in the country. Nevertheless, there are several baseline initiatives that are supportive and complementary to the

proposed project, and with which the proposed project will coordinate its activities. The most relevant ones are discussed here:

? Programme "Alliance des Communes pour la Transition Energétique" ACTE (2017 - 2022 ; Euro 3 million ; Swiss Government): ACTE was launched in May 2015, aims to strengthen the capacity of Tunisian municipalities to contribute to the national energy transition, through energy efficiency and the use of renewable energies at the level of heritage and municipal territory. The scope of the ACTE programme at the local level covers all Tunisian municipalities and covers six areas:

? Buildings and urban planning to support the municipality in its role as regulator and planner of the territory to promote sustainable territorial and urban planning and resilient to climate change;

? Municipal buildings and facilities to support the municipality in its role as a consumer and provider of "model" public services;

? Energy diversification to support the municipality's ability to promote energy efficiency and the use of renewable energies;

? Mobility and transport to support the municipality's ability to optimise travel on its territory and promote low-impact mobility;

? Internal organisation, monitoring and evaluation to strengthen the municipality's capacity to set up a system of management and internal governance within the municipality, including a system for monitoring and evaluating its local energy policy; and

? Cooperation and communication for the strengthening of the municipality's capacity to mobilize the support of its public, private and civil society partners

? Programme "Accompagnement du marché tunisien de l'éclairage dans la transition vers des technologies efficaces" (2018 - present ; USD 2.67 million ; GEF) : This project, launched by UNEP as part of the "En.lighten" initiative, aims to promote the transition of the Tunisian market to energy-efficient lighting technologies. To do this, it will intervene in the following four areas:

? The implementation of minimum energy performance standards to ensure the efficiency of replacement bulbs and the energy savings they achieve;

? The establishment of policies and support mechanisms to limit the supply of inefficient light bulbs and support the demand for more efficient alternatives;

? The implementation of monitoring, verification and enforcement programs to deter the sale of non-compliant products; and

? The implementation of measures for sustainable development, such as the determination of maximum limits for the mercury content of devices and the organization of a collection and disposal or recycling of used light bulbs.

In addition, it is noted that this project aimed to transform the island of Djerba into an "all-LED" island, which will promote green tourism in this region. Although the implementation of the project has been delayed, synergies will be sought during implementation. For instance, the minimum performance standards of the present project can be limited to outdoor lighting, while the UNDP-GEF project can focus on lower-power rated indoor lighting.

? Programme "d'efficacité énergétique dans le Bâtiment" PEEB (2016-2022; MEEM-ADEME, FFEM-AFD and GIZ) : The PEEB program is an initiative of the French Development Agency (AFD), the French Ministry of the Environment, Energy and the Sea (MEEM) and the German Technical Cooperation (GIZ) that aims to promote the emergence of energy efficiency projects in buildings in developing and emerging countries. For Tunisia, this initiative will intervene on the following components:

? Strengthening the policy framework through (i) the development of legislation relating to the thermal regulation of social housing, buildings belonging to the health sector, etc. (ii) the updating and upgrading of energy data in the sector and (iii) the strengthening of the system for monitoring the application of the thermal regulations in force;

? Support and technical assistance in the design and implementation phases of identified EA projects;

? Strengthening local capacities (policy makers & project developers) and developing guidance for planning and operating EE measures in hospitals; and

? Elaboration de conventions de financement pour les hôpitaux, logements sociaux et le secteur privé.

? Programme "digitalisation du processus d'octroi du permis de construction" (2017-2021 ; USAID) : As part of its Tunisian Government's long-term decentralization support program "TADAEEM", USAID is supporting Tunisian municipalities to automate the building permit process. This will be possible through the establishment of a platform for the electronic management of files and the training of municipal executives to ensure widespread use of the platform throughout Tunisia.

? The GEF is also financing a number of city-wide approaches to energy efficiency such as the Sustainable Cities Impact Programme in 23 cities in nine countries around the world\*. (\*<https://www.thegef.org/newsroom/publications/sustainable-cities-program> - accessed 24 May 2022.) In closer alignment with the regional scope and also scope of project interventions, the proposed project will collaborate with the UNDP-GEF funded project in the City of Amman, Jordan entitled "A systemic approach to sustainable urbanization and resource efficiency in Greater Amman Municipality (GAM)", and the UNDP-GEF project in Iraq entitled "Promoting carbon reduction through energy efficiency (EE) techniques in Baghdad City".

## 7. Consistency with National Priorities

### **Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions?**

Yes

**If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc**

32. The project design is aligned and supportive of the following strategies and the updated NDC under the UNFCCC:

? The National Programme for Sustainable Cities in Tunisia provides a multi-faceted, integrated approach to designing and planning for sustainable cities in Tunisia. It provides a template for local authorities to use to develop their town or municipal sustainable development strategies and action plans;

? The Sustainable Development Strategy of Kairouan provides the roadmap to 2030 for transforming the City of Kairouan in a sustainable city. It covers five strategic pillars: (1) Improve the quality of life and the environment of the city; (2) Reinforce social cohesion and improve the living conditions for inclusiveness of all citizens; (3) Capitalise of the different potentialities of the city and economic diversification; (4) Optimise the management of the territory and enhance urban planning; and (5) Preserve and value the cultural and architectural heritage. The Strategy also provides project ideas for implementing the strategic pillars. For pillar 1, it is proposed to develop zero-emissions buildings and to reequip public spaces. The Strategy also identifies how the 5 pillars contribute to the SDGs;

? The City of Kairouan has a sustainable energy plan (PAED) [paragraphs 4 and 5 above] that proposes energy efficiency interventions in buildings, such as: (1) energy efficiency equipment in municipal buildings; (2) demonstration of a green building through energy efficient equipment and building envelope; (3) capacity building of stakeholders on energy efficiency in buildings. The proposed project directly addresses (2) and (3). The PAED also proposes (i) to install LED public lights, and (ii) to upgrade the public lighting system using voltage regulation controllers. Each one of the two measures would result in 208 ktCO<sub>2</sub> emission reduction per year;

? Tunisia's updated NDC proposes a reduction in carbon intensity of 45% by 2030 relative to 2010. The unconditional contribution would be 13% of the proposed target. Forty percent (40%) of total investments (USD 14.4 billion) required would be for energy efficiency measures, out of which some 77% would be contingent on international climate finance (i.e. conditional contribution). Recognising that the construction/building sector accounts for a large share of primary energy consumption (and hence emissions of greenhouse gases), the NDC is explicit for support needed regarding technology transfer and innovative energy efficiency practices in buildings. The proposed GEF project squarely addresses these issues. The buildings sector is expected to contribute 25% of all emission reductions related to energy efficiency by 2030.

## 8. Knowledge Management

**Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

33. Component 3 of the project is dedicated to knowledge management, learning and scaling-up of project results nationally and regionally. Output 3.4 seeks to capture and disseminate lessons learned and best practices emanating from the project as well as within Tunisia and the MENA region. The lessons learned will be packaged as knowledge products for wide dissemination. For instance, the development of an online tool under Component 1 for carrying out comparative socio-economic and environmental benefits of buildings with or without EE measures will be disseminated broadly to be used as a decision-making and pedagogical tool for promoting low-carbon buildings. From the targeted proof-of-concept work in Components 1 and 2, lessons learned on operationalising the enabling framework, including revised licensing and permits process to operationalise the RTNB, enforcement, and the design and implementation of an efficient municipal lighting system, and the application of newly developed ECOBat energy label for buildings will be developed. The replication plans and bankable Concept Note to leverage additional financing will scale up project results in Kairouan and other municipalities in Tunisia, and in other MENA countries.

## 9. Environmental and Social Safeguard (ESS) Risks

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

**Overall Project/Program Risk Classification\***

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

**Measures to address identified risks and impacts**

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

# Social and Environmental Screening Template (2021 SESP Template, Version 1)

*The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document at the design stage. Note: this template will be converted into an online tool. The online version will guide users through the process and will embed relevant guidance.*

## Project Information

<b>Project Information</b>	
1. Project Title	Towards a Sustainable City through Energy Efficiency in Kairouan
2. Project Number (i.e. Atlas project ID, PIMS+)	6686
3. Location (Global/Region/Country)	Tunisia
4. Project stage (Design or Implementation)	Design
5. Date	31 May 2022

## Part A. Integrating Programming Principles to Strengthen Social and Environmental Sustainability

**QUESTION 1: How Does the Project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?**

*Briefly describe in the space below how the project mainstreams the human rights-based approach*

The project concept is based on, and specifically responds to, a request from the Municipality of Kairouan and the Directorate of Sustainable Development of the Ministry of Environment to develop energy efficiency measures in new buildings and public lighting. The City of Kairouan has started implementation of a city-wide sustainable development strategy, which provides an overall vision for the growth of the city until 2030 with a clear overarching focus on climate-resilient development, the creation of green jobs, and a strive for resource efficiency in all aspects of municipal planning and investments. The interventions proposed in the GEF funded project are also fully supportive of the updated Nationally Determined Contribution that seeks to have large investments in economy-wide energy efficiency. Since 77% of interventions are conditional upon financial support, the GEF funding augurs well.

Against a backdrop of deteriorating socioeconomic situation since the Arab Spring starting in Tunisia in 2011, the socioeconomic situation in the City of Kairouan is below the country average. For instance, the unemployment rate is 18.7% and is higher among the female population at 28.25% compared to 14.04% for the male population. The illiteracy rate of 17.64% is also higher than the national average of 13%. Kairouan also have a population growth rate of 1.6% per annum that exceeds the national average of 1%. The project is implemented in a city characterized by an unfavorable socio-economic situation.

Implementing EE measures in buildings and public lighting will have strong gender-responsive sustainable benefits. For instance, the project will seek to revitalize the local value chain for ecological building materials that has potential for new job creation. By catalyzing investments in energy efficiency measures, the local business value chain for energy efficient materials and supplies will be enhanced with further potential for job creation. By investing in energy efficiency in municipal buildings and public lighting, the savings on energy bill by the municipality can be invested in the provision of other social services to improve the socio-economic condition in the City of Kairouan. The overall project will contribute to improve the quality of life of the people.

***Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment***

As mentioned above, the adverse socio-economic situation in the City of Kairouan has strong gender biases against the female population. First, all institutional capacity building that will be provided by the project will ensure that a minimum 40% of women are beneficiaries. Job creation will take place mostly by re-invigorating the construction of locally available ecological building materials. The project will put in place a strategy, including appropriate training, to ensure that at least 40% of jobs created are for women. The replication plan that will be developed under Component 3 of the project will be gender-differentiated. Also, dissemination of lessons learned and knowledge products will be gendered. A detailed Gender Analysis and Gender Action Plan will be produced at PPG.

***Briefly describe in the space below how the project mainstreams sustainability and resilience***

The project is a GEF-funded climate change mitigation project and therefore environmental sustainability is the core of the project objective. To promote green buildings and efficient lighting in alignment with the objectives of the enhanced Nationally Determined Contribution, the Sustainable Development Strategy of Kairouan and the National Programme for Sustainable Cities in Tunisia.

The building sector is the main final energy consumer sector (37% in 2019, including biomass-energy). It is also involved through the building materials industries which are among the most GHG-emitting sectors. Taken as a whole, the building sector would represent from upstream to downstream around 50% of final energy demand in Tunisia, and at least 55% of GHG emissions attributable to energy in 2019. Out of the 13.8 MtCO<sub>2</sub> emission reductions to 2030 (relative to the business-as-usual scenario) expected from the energy sector, ~2MtCO<sub>2</sub> would be obtained from energy efficiency in buildings. The selection of Kairouan as pilot city also stems from the fact that it already implementing a sustainable energy plan (PAED), implying strong buy-in and ownership of the proposed project by the local government. Based on projections the total emissions were expected to reach 402,762 tCO<sub>2</sub> by 2020.

The proposed project will assist the Municipality of Kairouan to achieve a low-carbon pathway via targeted energy efficiency interventions in the municipal buildings and street lighting sectors. The building sector has been identified as having the largest potential for energy efficiency (EE) interventions in the country, and as such is the main focus of this project. Further the project will provide more general support for the application of low-carbon planning and performance tools building off the existing Sustainable Development Strategy for the City of Kairouan under the ambit of the National Programme for Sustainable Cities in Tunisia, and informed by lessons learned from the GEF-financed Sustainable Cities IAP and other projects (e.g. Jordan and Iraq).

The project will also enhance sustainable development through minimising dependence on imported energy, minimising energy costs to the municipality and the larger economy, creating new employment opportunities and improving the local environment. The sustainable development and socioeconomic development impacts of the project will be substantial and multi-faceted. Potential indicators to be considered in the final results framework include:

- ? - Performance of city (measured ex ante and ex post) based on ISO 37120
  - ? - Direct and indirect reductions in greenhouse gases
  - ? - Energy intensity/improved efficiency of buildings
  - ? - Total number of direct and indirect beneficiaries; Number of beneficiaries relative to total population
- Economic co-benefits aggregate annual monetary savings (US\$ equivalent) to the municipal budget from EE public street lighting and more efficient energy consumption in public buildings and public lighting.

***Briefly describe in the space below how the project strengthens accountability to stakeholders***

A multi-stakeholder process was used to design the project. Hence, the submission of the proposed PIF was approved by the key project stakeholders including the Municipality of Kairouan, the Directorate of Sustainable Development (Ministry of Environment) and the National Agency for Energy Conservation (ANME). A detailed stakeholder analysis and Stakeholder Engagement Plan (SEP) will be developed at PPG stage in order to fully account for the needs and expectations of national and local stakeholders. In addition, the SEP will provide for the modalities for the project to engage with the stakeholders. Importantly, the project Steering Committee (PSC) will oversee project implementation. The composition of the PSC will be informed by the stakeholder analysis, and it will be the main institutional arrangement for project accountability to stakeholders. Due care will be exercised to ensure participation of all stakeholders in project activities. The SEP will also formulate a grievance mechanism that any stakeholder that feels aggrieved by the project may use to seek redress.

**Part B. Identifying and Managing Social and Environmental Risks**

<p><b>QUESTION 2:</b> What are the Potential Social and Environmental Risks?</p> <p><i>Note: Complete SESP Attachment 1 before responding to Question 2.</i></p>	<p><b>QUESTION 3: What is the level of significance of the potential social and environmental risks?</b></p> <p><i>Note: Respond to Questions 4 and 5 below before proceeding to Question 5</i></p>			<p><b>QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High</b></p>
<p><b>Risk Description</b> <i>(broken down by event, cause, impact)</i></p>	<p><b>Impact and Likelihood</b> <i>(1-5)</i></p>	<p><b>Significance</b> <i>(Low, Moderate Substantial, High)</i></p>	<p><b>Comments</b> <i>(optional)</i></p>	<p><b>Description of assessment and management measures for risks rated as Moderate, Substantial or High</b></p>

<p><b>Risk 1: Limited human and institutional capacity of implementing institutions to adequately manage the project.</b></p> <p>Related to:</p> <p>.2 - Duty-bearers might not have the capacity to meet their obligations in the project</p> <p>P.14 ? Grievances or objections from potentially affected stakeholders</p> <p>The latter can be triggered by:</p> <p>Standard 3: Community Health, Safety and Security; 3.2, 3.3, 3.5.</p> <p>Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2</p>	<p>I = 4</p> <p>L = 2</p>	<p><b>Moderate</b></p>	<p>As the project was initiated by the Directorate of Sustainable Development (Ministry of Environment) and the Municipality of Kairouan it is expected that they will be willing to build the capacity (if needed) for project implementation.</p> <p>The Municipality has a vocation to provide services to the public. Since both the pilot projects will influence the quality of service delivery, there is always the possibility for grievances or objections to be raised by the beneficiaries. For instance, through environmental pollution and health hazards.</p>	<p>A Stakeholder Engagement Plan will be developed at PPG stage that will include a grievance redress mechanism so that aggrieved persons or parties will have recourse to redress.</p> <p>A detailed stakeholder analysis will be developed at PPG stage to account for the expectations of all stakeholders. The project will adopt new standards and labels for energy efficiency that are expected to increase the quality of public service delivery.</p>
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<p><b>Risk 2: The exiting unfavourable social conditions of women are reproduced, including gender-based violence through increase women's opportunities from the project.</b></p> <p>Related to:</p> <p>P.10 ? reproducing discriminations against women based on gender</p> <p>P.12 ? gender-based violence</p>	<p>I = 3</p> <p>L = 4</p>	<p><b>Moderate</b></p>	<p>The City of Kairouan has higher than average unemployment rate with the rate of unemployment twice as high among women than me despite women having better qualifications. Also, there is a higher than national average illiteracy rate and it is more prominent among women. Hence, all else being equal, the project that follows the baseline will reproduce these disparities, especially regarding jobs in the construction of new energy efficient building and in capacity building activities. There is also the possibility that capacity building of women potentially increase gender-based violence .[1]<sup>1</sup></p>	<p>At PPG stage, the project will carry out a thorough Gender Analysis in order to develop a Gender Action Plan with concrete actions to contribute towards overcoming the disparities just mentioned, especially on the employment side[2]<sup>2</sup> where the project can have a higher impact. The Gender Action Plan and the project Results Framework will contain sex-disaggregated indicators.</p>
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<p><b>Risk 3: Potential health and safety risks to the local community from exposure to hazardous material</b></p>	<p>I = 3 L = 3</p>	<p><b>Moderate</b></p>	<p>Municipal buildings will be built of a somewhat large scale integrating best practice resource efficient/technology measures. Nevertheless, there is the potential for health and safety risks arising from waste generation, exposure to pollution caused by construction and integrity of the building..</p>	<p>The Municipality will develop an ESIA for licensing purposes related to the construction of the new baseline building in Metbasta (to be confirmed as an 'associated facility' to this UNDP project) in 2024 as outlined in the PIF. At PPG stage, an ESMF will be developed to guide the implementation of the ESIA so that the risk is addressed and impacts mitigated. The ESMF will be carried out under Output 1.6 related to INV in new building. Also, the replication plan for scaling-up the results of the project (Output 3.5) will ensure that this risk is duly addressed.</p>
<p>Related to:  Standard 3: Community Health, Safety and Security; 3.1, 3.2, 3.3, 3.5.</p>			<p>Historical evidence shows that the structural collapse of buildings in Tunisia is quasi non-existent. Typically, buildings are built according to the civil engineering specifications of the Buildings Codes. There is a formal process for approving the structural design of buildings involving a number of public and private stakeholders, including the municipality, architects, project developers, and the Ministry of Equipment and Infrastructure.</p>	<p>As part of a new series of International Standards being developed for a holistic and integrated approach to sustainable development and resilience in cities under ISO/TC 268, International Organization for Standardization (ISO) 37120 establishes a set of standardized indicators that provide a uniform approach to what is measured, and how that measurement is to be undertaken. Components #1 and #3 will support the development of a variety of tools and metrics to foster accelerated resource-efficient urban development the Municipality Kairouan and benchmark progress against established international standards. Regarding new buildings, their building envelope energy efficiency will be benchmarked against the RTNB and ECOBat label.</p>
<p>Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2, 8.6</p>				

<p><b>Risk 4: Pollution of the environment due to pollutants and waste generated within the project boundary and damage to ecosystems</b></p> <p>Related to:</p> <p>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management; 1.1, 1.7</p> <p>Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2, 8.6</p>	<p>I = 3</p> <p>L=4</p>	<p><b>Moderate</b></p>	<p>The project site for the new municipal building in Metbasta will be constructed in an industrial zone implying that it is not in proximity to natural habitats and ecosystems (also not Cultural Heritage sites). The baseline study on modes of construction has shown that no resources from nature such as timber are utilized in construction. The main construction materials are concrete and steel. However, the project will support the development of a local value chain for local buildings materials that may have an impact on the environment and ecosystems. Further, the environment may be affected by various pollutants that are generated during construction. The transport and disposal of waste generated within the project boundary can also result in environmental pollution.</p>	<p>An ESMF will be formulated at PPG stage to guide the ESIA that will be carried out by the Municipality for the construction of the municipal building (to be confirmed as an 'associated facility' to this UNDP project). Any ESMP that will be needed will take into account the environmentally-sound disposal of all waste produced in the project boundary.</p> <p>Also, the replication plan for scaling-up the results of the project (Output 3.5) will ensure that this risk is duly addressed ? perhaps through the application of SESA (during implementation), if determined necessary.</p> <p>The project will carry out institutional strengthening to allow the Municipality to bench the sustainability of the city from a metabolic flow perspective. Related activities include:</p> <ol style="list-style-type: none"> <li>1) Quantification of all energy and material flows in the City of Kairouan;</li> <li>2) Kairouan benchmarked against other cities using ISO 37120 to measure the performance of city services and quality of life; and</li> </ol> <p>All project activities will be consistent with a resource-efficient approach.</p>
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<p><b>Risk 5: Working conditions for the project do not meet national or labour laws and international labour commitments</b></p> <p>Related to:</p> <p>Gender Equality and Women's Empowerment</p> <p>Standard 7: Labour and Working Conditions; 7.1, 7.5, 7.6</p>	<p>I = 3</p> <p>L = 4</p>	<p><b>Moderate</b></p>	<p>The baseline projects that will be enhanced under Components #1 and #2 will entail working conditions that have a bearing on occupational health and safety. Further, there is also the possibility of discriminatory working conditions between men and women based on the gender disparities mentioned for Risk 2.</p>	<p>Regarding gender-related discriminatory working conditions please see response for Risk 2 above.</p> <p>At PPG stage, an Environmental and Social Management Framework (ESMF) is proposed to account for all issues related to working conditions, especially regarding occupational health and safety. Where and if necessary, Labour Management Procedures will be included.</p>
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<p><b>Risk 6: Possible effects of climate change on the environment, living conditions and security in Tunisia</b></p> <p>Related to:</p> <p>Human rights: P.7</p> <p>Standard 2: Climate Change and Disaster Risks; 2.1, 2.2, 2.3</p>	<p>I = 4</p> <p>L = 2</p>	<p><b>Moderate</b></p>	<p>The ambient temperature in Tunisia is expected to increase in the future due to climate change. As discussed, energy building codes related specifically to building envelope insulation will be an effective form of adaptation to this climate impact. The accentuated impacts of future climate change are expected to increase political interest in addressing the drivers of such change through large-scale implementation of building codes that will lead to scaling-up of mitigation actions. Updated climate projections will be used in the PPG stage.</p> <p>Since the Arab Spring, the country's socioeconomic situation has deteriorated. The discontent is especially high amongst the Tunisian youths as they resent the lack of economic opportunities. The situation has been aggravated by the Covid-19 pandemic. The difficult socioeconomic situation translates into a volatile political environment. The positive side is that the socioeconomic situation has been stabilised through intervention by the International Monetary Fund</p>	<p>Adaptation measures which will be incorporated into this project include; 1) introduction of climate-responsive building techniques and elements to reduce the effect of heat and reduce demand on energy for cooling; 2) raising awareness on the long-term benefits of energy efficiency; 3) application of building energy codes and support to choose building insulation to reduce energy demand.</p> <p>Further, the ESMF will ensure that the vulnerability of the baseline building to the impacts of events such as floods are considered, as well as ensuring that the construction of the energy efficient building would not result in maladaptive practices.</p>
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<p><b>Risk 7: Potential damage to cultural heritage and/or local knowledge in the City of Kairouan</b></p> <p>Related to:</p> <p>Standard 4: Cultural Heritage; 4.1, 4.5</p>	<p>I = 3</p> <p>L = 2</p>	<p><b>Modertate</b></p>	<p>The City of Kairouan is a well-known Cultural Heritage (especially its ancient archaeology) site that has UNESCO inscription status. The inscribed site is a serial property that includes the medina and its suburbs, the Basins of the Aghlabids and the Zawiya of Sidi Sahib. The industrial site in Metbasta where the baseline project will be built is in an industrial zone that is geographically disconnected with the UNESCO World Heritage Site.</p> <p>Under Output 1.3, the project will propose a strategy for developing a value chain for locally-produced ecological materials. This will build and enhance local knowledge on use of local materials in ecological constructions.</p>	<p>Due consideration will be given in the development of Output 1.3 at PPG stage that local knowledge on the use of local building materials is respected. The output will be designed at PPG stage in close collaboration with the holders of the local knowledge. The need for integrating SESA into the design of this output will also be confirmed during the PPG.</p>
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<p><b>Risk 8: Potential adverse indirect impacts on communities resulting in physical displacement and/or economic loss.</b></p> <p>Related to:</p> <p>Standard 5: Displacement and Resettlement; 5.1, 5.2</p> <p>Standard 6: Indigenous Peoples; 6.1</p>	<p>I = 3</p> <p>L = 2</p>	<p><b>Moderate</b></p>	<p>There will be not displaced communities in the project area since the baseline project is taking place in a well demarcated industrial zone. Also, ?local populations? (see below) are not located in Kairouan city. However, there is the possibility that this risk may occur during implementation of the replication plan for scaling-up the lessons and results of the project.</p>	<p>In the formulation of the replication plan under Output 3.5, all due care will be exercised to highlight the need to deal with this risk. Full screening during the PPG will also reconfirm the applicability of this Standard to other project outputs.</p>
<p><b>Risk 9: Potential indirect impacts on the rights and livelihoods of local populations who might be located in the project?s area of influence.</b></p> <p>Related to:</p> <p>Standard 6: Indigenous Peoples; 6.1, 6.3</p>	<p>I = 3</p> <p>L = 2</p>	<p><b>Moderate</b></p>	<p>?Local populations? meet the criteria of SES Standard 6, but are not referred to as ?Indigenous populations? in the Tunisian context. The ?local populations? are not located in the City of Kairouan, and are therefore not directly impacted by project activities. However, there is the potential that the ?local populations? who are found mainly in the southern parts of Tunisia will be impacted during replication of the project so that their rights and livelihoods are affected.</p>	<p>In the formulation of the replication plan under Output 3.5, all due care will be exercised to highlight the need to deal with this risk. Full screening during the PPG will also reconfirm the applicability of this Standard to other project outputs.</p>
<p><b>QUESTION 4: What is the overall project risk categorization?</b></p>				

	<i>Low Risk</i>	?	

	<p><i>Moderate Risk</i></p>	<p>X</p>	<p>A total of nine risks have been identified and rated moderate. All the risks are screened for the project outputs and therefore also cover co-financing. They will be put through greater scrutiny at PPG stage.</p> <p>. Regarding the risks rated as moderate, the reproduction of gender inequalities and disparities, labour and working conditions, damage to the environment from pollution and waste generated within the project boundary, and climate change related risk. Related to these is the capacity of the project to be accountable to potentially affected project stakeholders. The project will invest in baseline projects that will produce waste that will need to be collected, transported and disposed in an environmentally-friendly manner. At PPG stage it is proposed to develop a Gender Action Plan, Stakeholder Engagement Plan (with grievance redress mechanism) and Environmental and Social Management Framework (ESMF) to deal with the risks.</p> <p>A further risk is the climate change impact. The ambient temperature in Tunisia is expected to increase in the future due to climate change. As discussed, energy building codes related specifically to building envelope insulation will be an effective form of adaptation to this long-term climate impact but nonetheless short-and medium term climate change shocks may impact the project. Specific adaptation measures which will be incorporated into this project include; Adaptation measures which will be incorporated into this project include; 1) introduction of climate-responsive building techniques and elements to reduce the effect of heat and reduce demand on energy for cooling; 2) raising awareness on the long-term benefits of energy efficiency; 3) application of building energy codes and support to choose building insulation to reduce energy demand .</p>
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	<i>Substantial Risk</i>	?		
	<i>High Risk</i>	?		
<b>QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)</b>				
Question only required for Moderate, Substantial and High Risk projects				
	<i><u>Is assessment required?</u></i> <i>(check if ?yes?)</i>	X		<i>Status?</i> <i>(completed, planned)</i>
	<i>if yes, indicate overall type and status</i>		X	Targeted assessment(s) Planned: Gender analysis, stakeholder analysis
			?	ESIA (Environmental and Social Impact Assessment) To be prepared by partners for the baseline project (likely considered ?associated facility? to this UNDP project); to be confirmed during PPG if SES requirements apply (e.g. if to be included in scope of ESMF, and/or if ?consistency? with SES is required)
			?	SESA (Strategic Environmental and Social Assessment) To be confirmed during PPG if needed for strategic plan under output 1.3
	<i><u>Are management plans required?</u></i> <i>(check if ?yes?)</i>	X		

	<i>If yes, indicate overall type</i>	X	Targeted management plans (e.g. Gender Action Plan, Emergency Response Plan, Waste Management Plan, others)	Planned: gender action plan, stakeholder engagement plan
		?	ESMP (Environmental and Social Management Plan which may include range of targeted plans)	To be prepared by partners for the baseline project (likely considered ?associated facility? to this UNDP project); to be confirmed during PPG if SES requirements apply (e.g. if to be included in scope of ESMF, and/or if ?consistency? with SES is required)
		X	ESMF (Environmental and Social Management Framework)	Planned
	<b><i>Based on identified risks, which Principles/Project-level Standards triggered?</i></b>		<b>Comments (not required)</b>	
	<b><i>Overarching Principle: Leave No One Behind</i></b>			
	<b><i>Human Rights</i></b>	X		
	<b><i>Gender Equality and Women's Empowerment</i></b>	X		

<i>Accountability</i>	X	
<i>1. Biodiversity Conservation and Sustainable Natural Resource Management</i>	X	
<i>2. Climate Change and Disaster Risks</i>	X	
<i>3. Community Health, Safety and Security</i>	X	
<i>4. Cultural Heritage</i>	X	
<i>5. Displacement and Resettlement</i>	X	
<i>6. Indigenous Peoples</i>	X	
<i>7. Labour and Working Conditions</i>	X	
<i>8. Pollution Prevention and Resource Efficiency</i>	X	

### Final Sign Off

*Final Screening at the design-stage is not complete until the following signatures are included*

<i>Signature</i>	<i>Date</i>	<i>Description</i>
QA Assessor		UNDP staff member responsible for the project, typically a UNDP Programme Officer. Final signature confirms they have 'checked' to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have 'cleared' the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

# SESP Attachment 1. Social and Environmental Risk Screening Checklist

<b>Checklist Potential Social and Environmental Risks</b>	
<p><b>INSTRUCTIONS:</b> The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the <a href="#">SES toolkit</a> for further guidance on addressing screening questions.</p>	
<p><b>Overarching Principle: Leave No One Behind</b></p> <p><b>Human Rights</b></p>	<p><b>Answer (Yes/No)</b></p>
P.1 Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
P.2 Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	Yes
P.3 Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	No
<i>Would the project potentially involve or lead to:</i>	
P.4 adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
P.5 inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities? [3] <sup>3</sup>	No
P.6 restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?	No
P.7 exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
<b>Gender Equality and Women's Empowerment</b>	
P.8 Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
<i>Would the project potentially involve or lead to:</i>	
P.9 adverse impacts on gender equality and/or the situation of women and girls?	No

P.10 reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes
P.11 limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
P.12 exacerbation of risks of gender-based violence? <i>For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.</i>	Yes
<b>Sustainability and Resilience:</b> Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below	
<b>Accountability</b>	
<i>Would the project potentially involve or lead to:</i>	
P.13 exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	No
P.14 grievances or objections from potentially affected stakeholders?	Yes
P.15 risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	No
<b>Project-Level Standards</b>	
<b>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management</b>	
<i>Would the project potentially involve or lead to:</i>	
1.1 adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	Yes
1.2 activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3 changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4 risks to endangered species (e.g. reduction, encroachment on habitat)?	No
1.5 exacerbation of illegal wildlife trade?	No

1.6	introduction of invasive alien species?	No
1.7	adverse impacts on soils?	Yes
1.8	harvesting of natural forests, plantation development, or reforestation?	No
1.9	significant agricultural production?	No
1.10	animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11	significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.12	handling or utilization of genetically modified organisms/living modified organisms?[4] <sup>4</sup>	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)[5] <sup>5</sup>	No
1.14	adverse transboundary or global environmental concerns?	No
<b>Standard 2: Climate Change and Disaster Risks</b>		
<i>Would the project potentially involve or lead to:</i>		
2.1	areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunamis or volcanic eruptions?	Yes
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters? <i>For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes</i>	Yes
2.3	increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	Yes
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	No
<b>Standard 3: Community Health, Safety and Security</b>		
<i>Would the project potentially involve or lead to:</i>		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	Yes

3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	Yes
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	Yes
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	No
3.5	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes
3.6	adverse impacts on ecosystems and ecosystem services relevant to communities? health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.7	influx of project workers to project areas?	No
3.8	engagement of security personnel to protect facilities and property or to support project activities?	No
<b>Standard 4: Cultural Heritage</b>		
<i>Would the project potentially involve or lead to:</i>		
4.1	activities adjacent to or within a Cultural Heritage site?	Yes
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No
4.3	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.4	alterations to landscapes and natural features with cultural significance?	No
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Yes
<b>Standard 5: Displacement and Resettlement</b>		
<i>Would the project potentially involve or lead to:</i>		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	Yes
5.2	economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions ? even in the absence of physical relocation)?	Yes
5.3	risk of forced evictions?[6] <sup>6</sup>	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
<b>Standard 6: Indigenous Peoples</b>		

<i>Would the project potentially involve or lead to:</i>	
6.1 areas where indigenous peoples are present (including project area of influence)?	Yes
6.2 activities located on lands and territories claimed by indigenous peoples?	No
6.3 impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to screening question 6.3 is ?yes?, then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk</i>	Yes
6.4 the absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5 the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6 forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 5 above</i>	No
6.7 adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8 risks to the physical and cultural survival of indigenous peoples?	No
6.9 impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.</i>	No
<b>Standard 7: Labour and Working Conditions</b>	
<i>Would the project potentially involve or lead to: (note: applies to project and contractor workers)</i>	
7.1 working conditions that do not meet national labour laws and international commitments?	Yes
7.2 working conditions that may deny freedom of association and collective bargaining?	No
7.3 use of child labour?	No
7.4 use of forced labour?	No
7.5 discriminatory working conditions and/or lack of equal opportunity?	Yes
7.6 occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes

<b>Standard 8: Pollution Prevention and Resource Efficiency</b>	
<i>Would the project potentially involve or lead to:</i>	
8.1 the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
8.2 the generation of waste (both hazardous and non-hazardous)?	Yes
8.3 the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No
8.4 the use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention</i>	No
8.5 the application of pesticides that may have a negative effect on the environment or human health?	No
8.6 significant consumption of raw materials, energy, and/or water?	Yes

[1] <https://www.tn.undp.org/content/tunisia/fr/home/blog/navigation-through-the-wickedness-of-gender-based-violence-in-tu.html> - accessed 9 June 2022.

[2] Ibid. Economic empowerment and financial independence is identified as a means to overcoming gender-based violence.

[3] Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, sexual orientation, gender identity, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to 'women and men' or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender and transsexual people.

[4] See the [Convention on Biological Diversity](#) and its [Cartagena Protocol on Biosafety](#).

[5] See the [Convention on Biological Diversity](#) and its [Nagoya Protocol](#) on access and benefit sharing from use of genetic resources.

[6] Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

#### **Supporting Documents**

Upload available ESS supporting documents.

Title	Submitted
<b>PIMS 6686 EE Kairouan_pre-SESP_10062022_clean and cleared</b>	

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

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

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Sabria Bnoui Ben Ammar	Operational Focal Point, Director General for External Relations	Ministry of Local Affairs and Environment	6/1/2022

#### **ANNEX A: Project Map and Geographic Coordinates**

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

26. The project interventions will take place in the city of Kairouan that is located in the Governorate of Kairouan as shown in Figure 1\*.

(\* <https://www.nationsonline.org/oneworld/map/tunisia-administrative-map.htm> - accessed 17 May 2022.) The baseline new building that will be enhanced using GEF investments will be in the municipal district of Metbasta. The locations for retrofitting public lighting will be chosen in high visibility public locations and the exact sites will be decided at PPG.

Figure 1. Map of Tunisia indicating the location of Kairouan.



← **City of Kairouan**  
 (35.6712° N, 10.1005° E)