

## Greening Hurghada

### Part I: Project Information

**GEF ID**  
10796

**Project Type**  
FSP

**Type of Trust Fund**  
GET

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

**Project Title**  
Greening Hurghada

**Countries**  
Egypt

**Agency(ies)**  
UNIDO

**Other Executing Partner(s)**  
To be decided

**Executing Partner Type**  
Others

**GEF Focal Area**

Multi Focal Area

**Taxonomy**

Focal Areas, Sustainable Development Goals, Climate Change, Climate Change Mitigation, Energy Efficiency, Sustainable Urban Systems and Transport, Renewable Energy, Technology Transfer, Biodiversity, Mainstreaming, Tourism, Infrastructure, Protected Areas and Landscapes, Coastal and Marine Protected Areas, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Stakeholders, Private Sector, Individuals/Entrepreneurs, Capital providers, Financial intermediaries and market facilitators, SMEs, Beneficiaries, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Capacity Development, Participation and leadership, Awareness Raising, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Exchange, Peer-to-Peer, Knowledge Generation, Workshop, Training, Course, Targeted Research, Innovation, Fisheries, Biomes, Coral Reefs, Mangroves

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

Climate Change Mitigation 2

**Climate Change Adaptation**

Climate Change Adaptation 0

**Duration**

60 In Months

**Agency Fee(\$)**

369,549.00

**Submission Date**

3/24/2021

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-1	GET	879,532.00	5,000,000.00
CCM-1-2	GET	879,531.00	5,000,000.00
CCM-1-3	GET	879,531.00	5,000,000.00
BD-1-1	GET	625,701.00	3,500,000.00
BD-2-7	GET	625,701.00	3,500,000.00
Total Project Cost (\$)		3,889,996.00	22,000,000.00

## B. Indicative Project description summary

### Project Objective

The project's objective is to reduce the environmental pressure of the tourism sector and related activities to mitigate GHG emissions and preserve biodiversity in the coastal area of Hurghada through mainstreaming climate smart technologies and sustainability practices in tourism, energy and transport infrastructure.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strategic policy framework in place for a green recovery and sustainable growth of the tourism sector in Hurghada	Technical Assistance	<p>1.1 Biodiversity and sustainable practices in tourism operations are integrated in future development policies, plans and programs to reduce the anthropogenic pressure on the ecosystem around Hurghada</p> <p>1.2 Planning and management of marine and coastal PAs adjacent to Hurghada are enhanced (Northern Islands Red Sea PA).</p>	<p>1.1.1. Natural Capital Accounting (NCA) established to provide clear guidance to the policy-making process in tourism/marine coastline development planning (e.g. Strategy on Urban and Tourism Development of Hurghada, LSC procedures) by incorporating the evidence-based value of the natural capital of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea Governorate</p> <p>1.1.2 Support development of policy and regulatory framework on promoting green and circular investments and mainstreaming biodiversity conservation measures in tourism operations considering the mitigation hierarchy to limit impacts on biodiversity (e.g., Sustainable and Green Tourism Plan) building on the work of GEF ID 5073 on the national policy and law for biodiversity off-setting in the tourism sector, as well as Biodiversity Conservation Guidelines for EIAs and related training.</p> <p>1.1.3 Guide future development plans, and nature-based solutions to incorporate climate change impacts in the policy</p>	GET	704,758.00	2,000,000.00



1.3 A suitable policy package is developed to enable and promote sustainability and green investments in the tourism sector	<p>framework based on the outcome of the completed Strategic Environmental Assessment (SEA) focusing on the tourism's impacts (hotels, boats, diving centers) on the marine ecosystem and climate change</p> <p>1.2.1. Support the adoption of new, innovative regulations of economic activities in Hurghada (including e.g.: zonation, licensing of all marine developmental activities, diving centers carrying capacity, boats sizes, economic alternatives, monitoring, boat radar system, law enforcement, etc.).</p>
1.4 Gender and youth mainstreaming are integrated into relevant strategies and policies	<p>1.3.1 Relevant policies and standards promoted to integrate climate change mitigation and biodiversity conservation in hospitality structures and other tourism activities (natural mooring, sustainable diving centers, energy and electric mobility)</p> <p>1.4.1 Guidelines designed and workshops conducted for decision-makers to incorporate gender and youth dimensions into relevant strategies and policies (incl. in 1.2.1 and 1.2.)</p>

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2. Green technology investments mitigate GHG emissions and reduce, degradation on coastal and marine ecosystems, and improve economic competitiveness of tourism sector	Technical Assistance	<p>2.1 Green economy investments de-risked and financing barriers removed</p> <p>2.2 Establish the business case to enable the increased investment in nature-based infrastructure</p>	<p>2.1.1 Climate-smart capital investment plan with a viable pipeline of investments across the energy and mobility sectors and nature-based solutions (NBS) for sustainable use of PAs including integrated climate-risk, and biodiversity conservation principles</p> <p>2.1.2 Interventions identified and priority projects prepared for investment through technical assistance</p> <p>2.1.3 Financial policy framework developed and proposed for approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity;</p> <p>2.2.1 Systematic integration of key biodiversity-friendly design principles, nature-based infrastructure (NBI) in development plans, management plans, certification schemes to manage natural ecosystems and touristic landscapes to generate value for society</p> <p>2.2.2 TA to tourism enterprises to implement the requirements of effective management frameworks including the national certification scheme (currently being developed) for nature-based/biodiversity-friendly tourism, in line with a biodiversity and tourism development monitoring program</p>	GET	400,000.00	3,000,000.00
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2. Green technology investments mitigate GHG emissions and reduce, degradation on coastal and marine ecosystems, and improve economic competitiveness of tourism sector	Investment	2.3. Greenhouse gas emissions reduced and monitored	<p>2.3.1 Green investments in renewable energy, energy efficiency and e-mobility facilitated through risk mitigation instruments such as long-term incentives with linkages to green recovery stimulus packages</p> <p>2.3.2 GHG emission inventory developed for the tourism sector, and capacity in place for continued tracking and MRV</p>	GET	1,600,000.00	11,000,000.00
3. Long-term environmental and economic sustainability of low-carbon infrastructure and biodiversity investments are ensured	Technical Assistance	<p>3.1 Enhanced stakeholder capacities, awareness and partnerships influence behavior change towards sustainable tourism</p> <p>3.2 Mainstreaming biodiversity conservation and climate action into income generating activities</p>	<p>3.1.1 Strengthening institutional capacity through workshops tailored for governmental stakeholder and tourism sector, including sustaining the climate MRV system</p> <p>3.1.2 Communication and participation strategies and information campaign targeting tourism sector and governmental stakeholders to promote sustainable tourism and its economic and environmental benefits</p> <p>3.1.3 Participation and contribution in relevant global platforms: global events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation)</p> <p>3.2.1 Improving staff awareness and responsibility for biodiversity and ecosystems, participate in actions that protect the environment and biodiversity</p>	GET	710,000.00	4,000,000.00

3.3 Impacts from fisheries, boating, anchoring, diving and snorkelling on coral reef ecosystems in Northern Islands Red Sea PA decreased.

3.4 Financing and management effectiveness of the Northern Islands Red Sea PA (NIRSPA) improved (e.g., NIRSPA to be declared on the Green List of PAs)

3.2.2 Capacities developed for various community-based tourism activities, including women-owned businesses

3.3.1 Establish a regional biodiversity steering committee to ensure that sustainable management of marine resources and fisheries is maintained

3.3.2 Provision of technical assistance and support to identify best practices and solutions to minimize the threats from tourism and economic harmful practices on biodiversity (e.g., sustainable fishing guideline, diving and snorkelling guidelines)

3.4.1 PA management plan, visitors' management plan, business plan, monitoring plan and visitors' infrastructure enhanced, adopted and implemented according to the international standards

4. Monitoring and Evaluation	Technical Assistance	4.1 Adequate monitoring and evaluation mechanisms are in place, facilitating successful project implementation and sound impact	4.1.1 Periodic monitoring of project implementation as per GEF and UNIDO guidelines 4.1.2 Monitoring and evaluation of gender impact and gender mainstreaming strategy 4.1.3 External Mid-Term Review and independent Terminal Evaluation conducted	GET	290,000.00	1,000,000.00
Sub Total (\$)					3,704,758.00	21,000,000.00

Project Management Cost (PMC)

GET	185,238.00	1,000,000.00
Sub Total(\$)	185,238.00	1,000,000.00
Total Project Cost(\$)	3,889,996.00	22,000,000.00

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Private Sector	Tourism enterprises in Hurghada	Equity	Investment mobilized	5,000,000.00
Other	Financial Institutions	Loans	Investment mobilized	12,000,000.00
Recipient Country Government	Programme for Country Partnership	Equity	Investment mobilized	2,000,000.00
Recipient Country Government	The Governorate of the Red Sea region	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	The City of Hurghada	In-kind	Recurrent expenditures	600,000.00
Recipient Country Government	EU CES-MED – City of Hurghada SECAP	Grant	Investment mobilized	550,000.00
Civil Society Organization	HEPCA	In-kind	Recurrent expenditures	500,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	73,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	277,000.00
<b>Total Project Cost(\$)</b>				<b>22,000,000.00</b>

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

Investment will be mobilized under all components, but most prominently under the Component 2. The Component 2 will link the pipeline of prepared investments across tourism, energy and mobility sectors with available financial instruments including the government COVID19 financial recovery package for the tourism sector, complementing financial initiatives from finance institutions, as well as the local private sector itself wherever feasible. Component 3 will focus on mainstreaming the investments that have integrated climate change risks and biodiversity preservation principles through the strengthened capacity of the tourism sector players, and the establishment of a financial platform or similar to facilitate project realization. Co-financing under Component 1 will consist primarily of in-kind contributions from the public sector, including the Governorate and City of Hurghada and NGOs. UNIDO's in-kind co- financing refers to scientific research (e.g., Annex E - Background biodiversity report), and knowledge and training materials that the project will benefit from (e.g., from Industrial Energy Accelerator programme and other relevant programmes and projects with similar focus) throughout the project duration. UNIDO's in-kind co-financing refers to scientific research (e.g., Annex E - Background biodiversity report), and knowledge and training materials that the project will benefit from (e.g., from Industrial Energy Accelerator programme and other relevant programmes and projects with similar focus) throughout the project duration.



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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	GET	Egypt	Climate Change	CC STAR Allocation	2,638,594	250,666	2,889,260.00
UNIDO	GET	Egypt	Biodiversity	BD STAR Allocation	1,251,402	118,883	1,370,285.00
Total GEF Resources(\$)					3,889,996.00	369,549.00	4,259,545.00



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

PPG Amount (\$)				PPG Agency Fee (\$)			
150,000				14,250			
Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	GET	Egypt	Biodiversity	BD STAR Allocation	48,255	4,584	52,839.00
UNIDO	GET	Egypt	Climate Change	CC STAR Allocation	101,745	9,666	111,411.00
Total Project Costs(\$)					150,000.00	14,250.00	164,250.00

Core Indicators

Indicator 2 Marine protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
180,000.00	0.00	0.00	0.00

Indicator 2.1 Marine Protected Areas Newly created

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 2.2 Marine Protected Areas Under improved management effectiveness

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
180,000.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Northern Islands Red Sea PA	555543022	Protected Landscape/Seascape	180,000.00						

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
96,000.00			

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

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

Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
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Indicator 5.3 Amount of Marine Litter Avoided

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

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)	338300	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	676600	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)	338,300			
Expected metric tons of CO <sub>2</sub> e (indirect)	676,600			
Anticipated start year of accounting	2025			
Duration of accounting	10			

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)	3,000,000,000			

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Solar 0.20  
Photovoltaic



**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>	10,750			
<b>Male</b>	14,750			
<b>Total</b>	25500	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

More information on the indicative figures can be found in section f) global environmental benefits as well as in Annex H. In addition to the BD core indicators (indicators 2 and 5), project targets are aligned with Aichi Biodiversity Targets. The project outcomes will contribute in particular to 4 strategic goals listed below: - Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society - Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use - Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity - Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

## Part II. Project Justification

### 1a. Project Description



## Executive Summary

The tourism sector in Hurghada is the main source of the GHG emissions and causes degradation of its on natural assets; biodiversity, coral reefs and environment. Therefore, the project's goal is to reduce environmental pressure from the tourism sector to preserve biodiversity in the coastal city of Hurghada through mainstreaming climate smart technologies and sustainability practices in tourism, energy and transport infrastructure. The project will improve the sustainability of tourism in Egypt through the mainstreaming of BD conservation into CCM investments and with emphasis on vulnerable coastal-marine areas as through the consolidation of effective management and planning with strengthened capacities and financial mechanisms. It will facilitate coordinated implementation through setting up action plans to achieve better policy and planning coherence between tourism and environmental/energy and biodiversity management.

Key issues to be addressed by the project are:

- Sustainable tourism practices promoted and investments prioritized towards ecological, economic and social sustainability
- The impact of tourism and fishing activities on biodiversity incorporated into policy and strategy development, including a strategic environmental assessment
- Climate change and air pollution mitigated through a dedicated TA program and pipeline for investments developed
- COVID-19 recovery plan linked to financial support mechanisms that would drive climate resilient private sector investments in the future

Avoiding and minimizing impacts to biodiversity will be considered in the development of new public and touristic infrastructure, by assessing and evaluating the natural capital basis and establishing a sound monitoring system. The "Greening Hurghada" project will build on those baseline initiatives and will especially add the integration of biodiversity conservation into climate smart infrastructure investments. Thus, the project is going to tackle the main environmental challenges in Hurghada, with a sectoral focus on tourism in line with the national pandemic recovery packages and policies targeted to the sector.

The project will put a particular focus on demonstrating the benefits of climate smart technologies on reducing GHG emissions, but also mitigate the pressure on the local environment (e.g., air pollution, noise) thus the drivers of biodiversity degradation.

The following interventions will be upscaled to a broader level with policy frameworks and capacity building on sustainable tourism and biodiversity preservation:

- Improve management of key touristic destinations/sites, e.g., diving centers, promote eco-friendly environmentally sound practices in hotels and other tourism enterprises (BD)
- Optimize the energy use in hotels (CCM): support the implementation of energy efficiency and resource efficiency measures, increase the share of renewable energy use
- Reduce GHG emissions and air pollution in the transport sector (CCM/BD) through e-mobility solutions
- Mainstream biodiversity conservation and climate action into income generating activities (e.g., fisheries) including for local communities, e.g., community-based ecotourism (CCM/BD)

The GEF increment will complement these interventions by establishing and systematizing monitoring for BD and CCM, harmonizing their objectives and facilitating their implementation. This will translate into effective tourism development and management of touristic sites, increased area under sustainable use and conservation of species. The effective operation of selected tourism sites is expected to result in their environmental sustainability in the long term, considering the mitigation hierarchy as an iterative process to reduce impacts through avoidance and minimization measures.

## 1a. Project Description

### A. The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

This section is divided into 3 subsections:

A.1. Global environmental problems focusing on GHG emissions, impacts of biodiversity and waste.

A.2. Root causes behind these problems with focus on Hurghada

A.3. Barriers needs to be addressed to overcome to baseline/business-as-usual (BAU) scenario

### **A.1. Global environmental problems**

1. The most pressing challenge in Hurghada today is the *environmental degradation caused by the tourism sector and related activities such as fishing due to increasing demand*.
2. The tourism industry is one of the most important and fastest growing components of Egypt's economy which is predominantly based on sun & beach tourism. The number of international tourist arrivals to Egypt went up 14.8% in 2019 compared to 2018 [i].
3. Tourism development potential is a major criterion behind the selection of new and expanded urban development areas in Egypt, because the sector is prioritized by the Government to provide employment and economic growth for its growing population and act as attractant for resettlement. This is causing pressure on scarce resources and environmental challenges that need to be prevented and addressed. Otherwise, if and where these challenges remain unmanaged, the very foundation on which the tourism economy is supposed to feed (clean air, water and attractive ecosystems especially coral reefs; clean urban areas and beaches; pleasant transport; etc.), risks being undermined.
4. Some of the top tourist destinations in Egypt such the Red Sea coast rely on the marine ecosystems, most notably healthy coral reefs for their business. Hurghada, located at the Red Sea coast is facing increasing environmental and biodiversity challenges due to the intensifying pressure from the tourism activities.
5. Red Sea governorate population, mainly represented by Hurghada population, increased from 0.27 million in 2006 to 0.37 million in 2017 with annual growth rate percentage at 2.8%.
6. To ensure sustainable growth of tourism, environmental and climate considerations (e.g., clean energy generation and use, fossil-free transportation systems, ecosystem and biodiversity management, considering future climate change impacts, etc.) needs to be integrated as a step towards ensuring low carbon, ecologically-sensitive and climate resilient – but also economically sustainable – development.

The following sections give further information on environmental problems with focus on biodiversity and GHG e missions.

#### Biodiversity

7. Egypt has a unique biodiversity that contributes to its economy and supports human wellbeing and provides regulating and supporting services. It is the home of a wide variety of ecosystems (marine, desert and riverine) and life forms. Despite being consistently arid or semi-arid, Egypt is home to an extensive diversity of habitats, fauna, flora and microorganisms due to its very varied eco-zones. It hosts 262 higher species found nowhere else on earth. Unfortunately, about 24% are classified as threatened, including 19 plants that are endangered. 53 endangered species of fauna are also found in Egypt. These endangered species represent a priority for conservation measures such as habitat restoration, protected areas and special land management schemes. As habitat destruction continues the monitoring of its impact on these endemic and endangered species becomes of increasing importance.
8. Unsustainable tourism activities, as well as poorly managed urban resource consumption and practices can have major harmful impacts on natural habitats, ecosystems and biodiversity, in and near urban areas and the coastal areas, but also within nearby protected areas. Pressures vary across the landscape in time and space: some areas only experience seasonal impacts; and while some areas are currently not heavily impacted, there is no guarantee that they remain so in future.

9. Due to increasing demand for fish and shellfish, land and sea-based aquaculture is a growing industry in the Red Sea. Unsustainable fisheries and destructive fishing practices are high-risk threats to the coral reefs and biodiversity especially in northern part of the Red Sea (Fine et al., 2019). Overfishing through commercial or artisanal fishing causes algal dominance with lack of grazers which in return threatens the endemic species (Spaet and Berumen, 2015). In addition, studies show that coral microbial communities change in overfished areas which directly impacts the health of the coral ecosystem. 55% of all coral reefs in the Red Sea suffers from overfishing (Burke et al., 2011).

10. Data collected on maritime transportation shows a total of 2,450 boats (thereof approx. 450 daily trips and safari boats), depart from either the 3 main marinas or 67 jetties spread along Hurgada city coast. The boats are running mainly on fossil fuels, which causes frequent oil leakages, exhaust gas emissions and noise pollution are impactful on the fragile marine ecosystem. In addition, improper mooring practices caused by excessive access to diving centers result in long-term damage to coral reefs. The exhaust emissions are mainly resulted from the old and inefficient engines which consumes more fuel and produce more harmful emissions.

#### GHG emissions

11. The most recent available UNFCCC data for Egypt's GHG emissions is from 2015. Egypt's GHG emissions in 2015 totaled 325.6 million tons (Mt) CO<sub>2eq</sub>. The breakdown by gas is 237.9 Mt CO<sub>2eq</sub> from CO<sub>2</sub> emissions, 41.5 Mt CO<sub>2eq</sub> from CH<sub>4</sub> emissions, and 38.6 Mt CO<sub>2eq</sub> from N<sub>2</sub>O emissions. Total GHG emissions have increased by 31% from 2005 to 2015 with an average annual growth rate of 2.35%. GHG emissions from the Energy, Industrial Process and Product Use (IPPU) and Waste sectors have increased by 40%, 49%, and 34% respectively; while the emissions from the Agriculture, Forestry and Other Land Use (AFOLU) sector have decreased by 7% over the same period [ii].

12. The energy (43%) and transportation sectors (23%), are among the primary contributors to GHG emissions in Egypt, and together with manufacturing industries (23%) represent almost 90% of CO<sub>2eq</sub> emissions in the country.

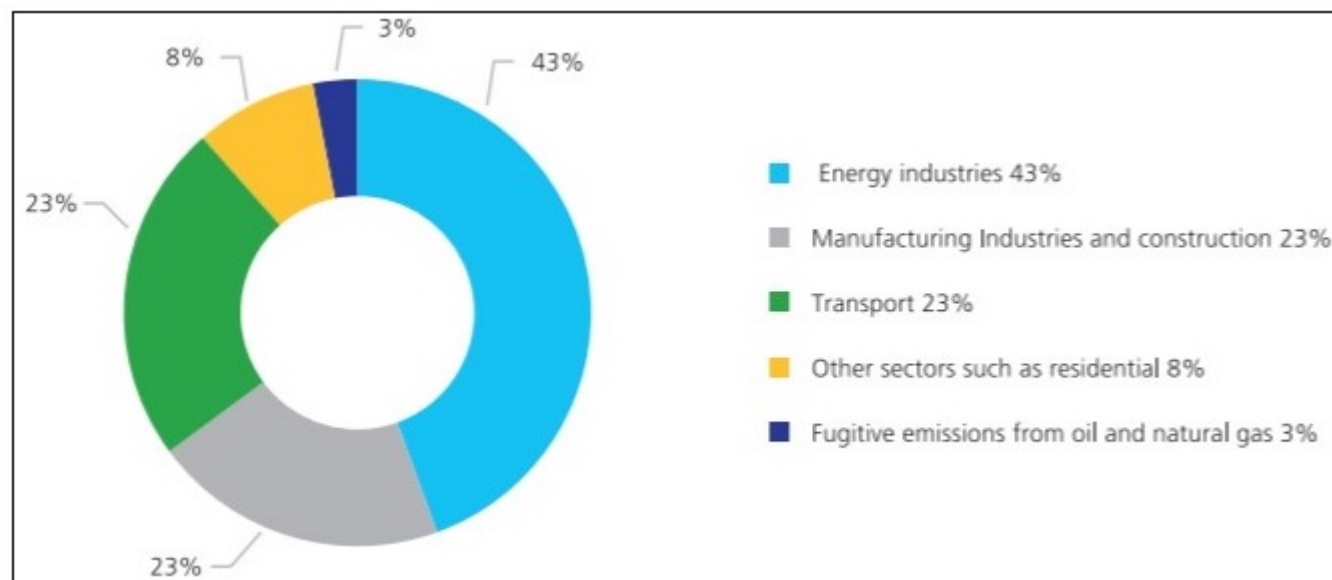


Figure 1: Emissions per category for the energy sector, 2015

13. The tourism sector in Hurghada holds the highest rank in energy consumption with 36% of the total consumption and consequently the biggest share (37%) of GHG emissions equivalent to 490 ktCO<sub>2</sub>eq/year[iii]. All the tourism related transport is based on fossil fuels thus reducing the urban air quality. This problem is not limited to the roads, but also extended to water transport, especially tourist boats that run by fossil fuel in the Red Sea. The sustainability problem in the tourism sector in Hurghada needs to be urgently addressed. The estimated data will be validated during the PPG.

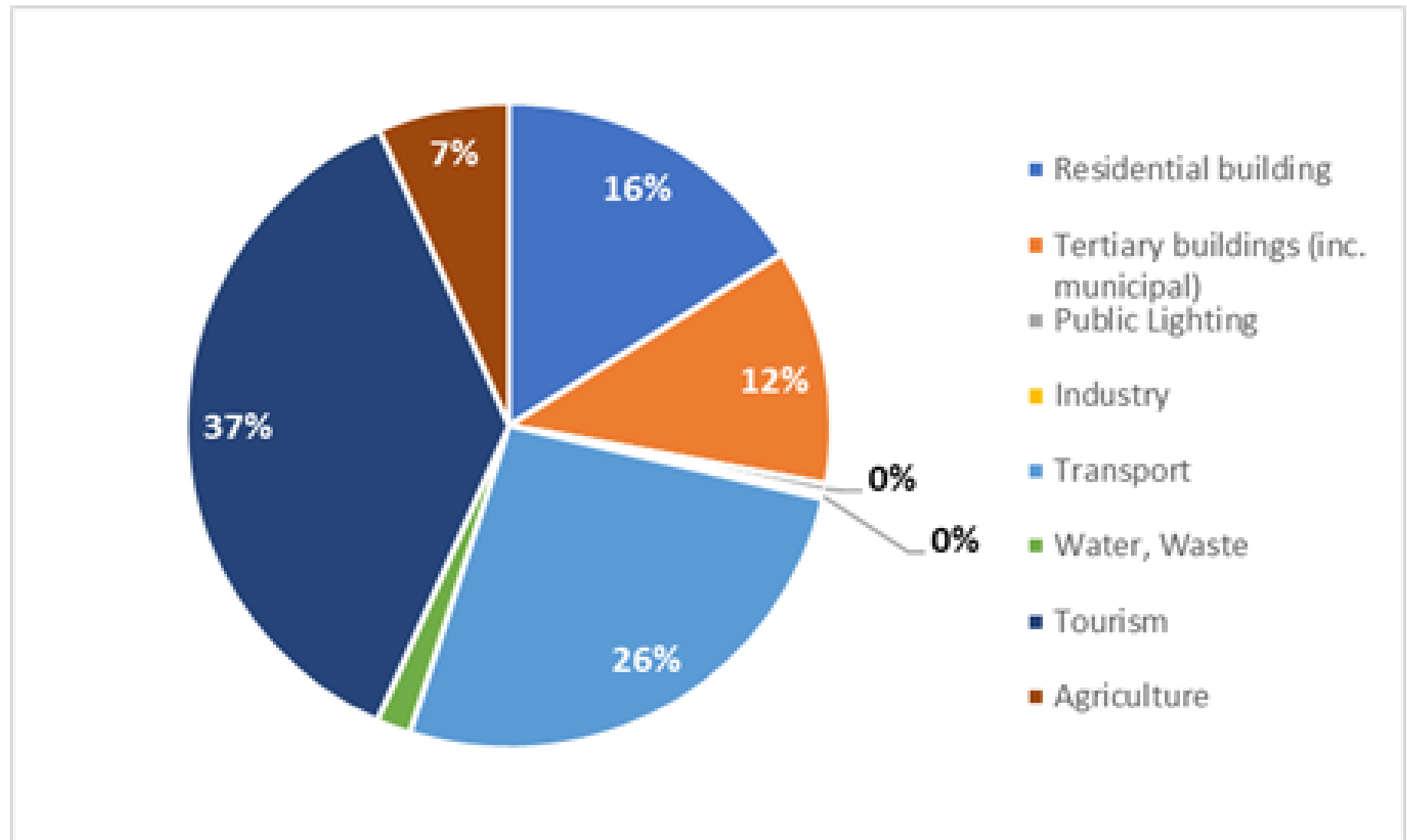


Figure 2: GHG Emissions Hurghada, 2015

#### A.2. Root causes

14. The increase of tourism activities over the past decades and the associated numbers of tourists arriving in the country/region have increased the pressure on the environment and ecosystem constantly. It is expected that tourism – after coping with the COVID-19 pandemic – will remain the lead economic activity in the future, both in terms of investments and employment. In hard times, due to political instability in the region, there has been a tendency for hotel and resort operators to sell rooms at considerable discounts and such discounts are very common in less strategically placed resorts.

15. Dependency on fossil energy sources creates air pollution and GHG emissions: The energy system is heavily dependent on fossil fuels like oil and gas, and local (renewable) sources are yet marginally used. Energy production leads to environmental impact in the form of emissions to air and water usage and leakages into the sea (e.g., hot water and cooling water demand), and waste heat not being recovered.

16. The hospitality sector in Egypt requires a set of energy efficiency strategies in addition to the diversification of energy supply with renewables. The cooling and hot water facilities in the hotels are often obsolete and inefficient. There are not many examples of efficient centralized cooling systems. Excess use of electricity increases the pressure on the electricity infrastructure and even causes black-outs and brown-outs. The tourism sector has high green investment potential with significant emission savings and the paybacks are interesting with the actual energy prices for large consumers. However, the penetration of energy efficiency and sustainable technologies is still low. [v]

17. Tourism activities increase pressure on biodiversity and ecosystem. Along the Egyptian Red Sea coast, coral reefs are experiencing increasing pressure from the rapidly expanding tourism industry. Diving and snorkeling activities directly impact the coral reef health and cause its damage while developing tourism facilities including dredging for artificial beaches, boat anchors and grounding, and sedimentation can indirectly but severely impact the health and coverage area of coral reefs. Now, tourist developments extend from about 30 km north of Hurghada nearly all the way south to Safaga. All this development has taken place with little regard for the natural environment, obviously with severe negative impact, particularly on littoral and marine habitats. There is, likewise, increasing pressure for tourism development on the islands. Two eco-facilities have been established on Giftun Kabir Island and others are planned. There has been a request to establish a hotel on one of the islands at the mouth of the Gulf of Suez.

18. The direct threats to biodiversity include:

I. Increased number of diving boats (daily trips and safari boats) in the attractive diving areas, with high concentration of divers and turbulences created by the boats, leaking fuels (diesel and gasoline) into the sea etc.

II. Unsustainable touristic and recreational activities in sensitive environments including within nearby protected areas causing disturbance and habitat degradation. Pressures on biodiversity stem from fishing, reef impacts from diving, boating, anchoring, plant collection and trampling, off-road vehicle use, uncontrolled trekking and climbing, etc. This is a particular concern for Egypt's arid vegetation, for coral reefs and for highly sensitive animal species such as the Dugong.

III. The construction of buildings and other urban infrastructure such as roads, airports and ports or coastal defenses leading to the loss, degradation and fragmentation of natural ecosystems. This includes the dredging/ smothering and mining of coral reefs, off-site extraction of building materials, and the widespread uncontrolled disposal of building debris. The resulting loss of connectivity between different habitat blocks poses a significant risk to biodiversity and undermines the utility of PAs as biodiversity reservoirs.

19. The indirect threats to biodiversity include:

I. The development of new roads providing easier access to ecologically important areas; unless planned to incorporate biodiversity values and adequately monitored, this could have the inadvertent effect of increasing pressures exerted by residents and tourists.

II. Exploitation on natural resources due to demand from new urban populations and increasing number of tourists: an increase in fishing, agriculture and animal grazing can occur to satisfy rising demand for food produce from tourism, causing additional pressure on biodiversity and potentially leading to habitat degradation on protected areas.

III. *Habitat destruction and biodiversity loss due to overfishing.* The Red Sea in Egypt is experiencing both overfishing and destructive fishing. Overfishing of target commercial species is threatening the biodiversity and fisheries stocks where the fishermen target the spawning aggregations that could cause systematic stocks depletion. With more impact, destructive fishing takes place when the unsustainable fishing practices and inappropriate nets are used. Over-fishing and destructive fishing practices have already led to a significant degradation in many of Egypt's coral reef ecosystems.

### **A.3. Barriers that need to be addressed to overcome the baseline/BAU challenge**

#### **Barriers to sustainable management of the energy**

20. *Lack of robust planning and adequate policies to promote sustainable and integrated management of energy.* Although there are certain policies specifically on renewable energy use and energy efficiency, they still need to be tailored to the tourism/hotel sector in an urbanized setting where there are other parameters such as seasonality, water management and requirement for a certain level of service to be provided.

21. *Lack of adequate technical capacity on sustainable energy use and management in tourism sector.* There are some weaknesses in the technical capability in investing and maintenance of EE and RE technologies (e.g., renewable electricity and hot water production, efficient desalinators etc.). There is also no entity that is responsible for measuring, reporting and verification of the EE performances of hotels in Hurghada.

22. *Lack of adequate financial incentives:* The main constraint to investing towards EE measures have been the heavily subsidized fossil energy and electricity prices. However, there is a strong signal from the Government of Egypt to increase energy prices as part of a wider plan to reduce its subsidies towards fossil fuel (electricity, water and gas). Lending schemes specific to renewable energy projects have to be explored that would enable the best use of limited concessional public resources (including those provided by development banks and institutions) to soften the terms of overall project financing. In addition, there is significant lack of data and good example of investments on sustainable energy use in tourism enterprises. Stimulus packages bring new opportunities to be linked with sustainable energy investments to ensure the green recovery of the sector.

23. *Lack of sufficient awareness and information:* Most of the hotel managers do not have sufficient awareness regarding sustainable use of energy and water resources and related solutions. There is low awareness on the cost of the investment needed versus the payback period, but also fears of compromising guest comforts. A thorough information campaign is lacking in order to increase the interest of the key stakeholders, but also to showcase the good examples of similar projects such as in Cairo.

#### **Barriers to reduce the pressure on biodiversity**

24. *Lack of capacity, demonstrated knowledge and awareness on sustainable tourism activities:* Tourism is one of the most important economic sectors which experienced significant growth in the last years. In Hurghada, the majority of tourists are expected to be marine tourists who are basically attracted to water activities diving, snorkeling and other water sports. Earlier surveys reported snorkeling as the main motivator for one third of tourists and coral reefs as the most enjoyed aspects for 73% of these tourists. This attraction of tourists, if accompanied with uncontrolled touristic activities, constitutes a major threat and causes severe stress on coral reefs, the major biodiverse ecosystems along the Red Sea coast, in general, and Hurghada, in particular. Tourism-exposed sites, in contrast to fairly non-exposed sites, suffer from physical damage reflected in decreased frequency of hard coral, higher percent of soft coral, and a higher percentage of algae. This coral reef damage is primarily a result of anchor and diver damage. There is a need for more mooring buoys, maintenance and networking of mooring buoys to protect the coral reefs. There is no coherent awareness and marketing campaigns for sustainable tourism practices by the tourism industry.

25. *Inadequate environmental management of PAs:* Policies for biodiversity/natural capital and regulations for biodiversity-harmful economic activities are patchy and have loopholes. Ecosystem assets continue to be largely taken for granted in day-to-day decision making. Use of the marine space by different economic activities is not clearly regulated, especially in the Managed Resource PAs e.g., around Hurghada and in new development

areas. For instance, on reef carrying capacity, oil leaks and waste from passing ships, marine pollution risks, sea cucumber harvesting, flora damage from off-road driving and quarrying, illegal tree felling, illegal hunting, guarding natural sites, shortage of resources.

26. *Lack of institutional coordination:* There is a weak inter-institutional exchange and coordination considering integrated land use and resource planning. The main governmental bodies dealing with policy formulation and implementation of relevant plans and actions on national and local level, the General Organization for Physical Planning (GOPP), the Ministry of Local Development (MLD), the New Urban Communities Authority (NUCA), and the Ministry of Planning, Monitoring and Administrative Reform (MPMAR) have different mandates regarding the formulation and implementation of urban policies in both new and existing settlements: while GOPP formulates policies and spatial plans for development, both MLD and NUCA are responsible of the implementation and management of those policies in existing and new cities respectively. MPMAR ensures that the policies and plans are coordinated at the local, regional and national levels and that the required budget for implementation is allocated. However, to achieve a better urban inter-linkages and synergies, an improved consolidation of efforts between the four authorities is urgently needed and requires linkage with the environmental authority, Ministry of Environment/EEAA. Yet, the result is a weak urban resilience, and therefore lack of adaptive and sustainable growth at all levels (public, private and civil society).

## **B. The baseline scenario or any associated baseline Programs**

### **Project target areas and relevant past/recent interventions**

27. Hurghada is the administrative capital of the Red Sea Governorate. It is located on the coast of the Red Sea South of Suez and 550 km from Cairo, spanning over 40 km of pristine. It is bordered from the north by El Gouna and Ras Gharib city, from the south by Safaga (approx. 60 km South), from the east by the coast of the Red Sea and from the west by the Red Sea mountains (Figure 1). Hurghada has a mild climate throughout the year; its dry desert climate leads to differences in temperature between day and night, which is hot in the day and cold at night especially during the winter months. Temperature can reach highs of 42°C and lows of 18°C throughout the year [vi].

28. The city has a population of approx. 280,000 and is divided into:

- El Ahia and El Helal – the northern part
- El Dahar (Downtown) – the old town
- Sakala – the city center
- El Kawsar – the modern part
- El Mamsha (Village Road) – a pedestrianized street (around 4 km)

29. Many of Hurghada's hotels and touristic shops are located along Village Road towards to south to Safaga. Dahar is the old center where the traditional bazaar, the post office and the coach stations are located. The busiest part of the city is Sakala.

30. Hurghada International Airport is located only 5 km southwest of the downtown with scheduled passenger traffic connecting to Cairo and directly to several cities in Europe. A new terminal was opened in 2015 to accommodate increased air traffic. More than 40 airlines perform seasonable charter flights to the cities in Western and Eastern Europe to bring international tourists.

31. Hurghada is considered the most important Egyptian tourist center on the Red Sea coast and one of the most important tourist centers in the Middle East. It is estimated that around 4 million tourists visit Hurghada every year. The city has grown significantly in the last decades mostly thanks to the booming tourism activities. Hurghada is one of the most important diving areas in the world. It offers all possibilities for fishing, underwater fishing and snorkeling because of the clarity of its water and the worldwide fame of its coral reefs and rare marine life [vii]. Although it is rated one of the three best diving areas in the world, it is a popular destination also for non-divers. Leisure on the beach, water sports, clubbing and golfing are just a few of the options to choose from it in addition to Hurghada's health resorts [viii]. The Red Sea is also known for its cultural heritage and historical sites. Moreover, adequate world-class infrastructure and support facilities are available. Added to these are the warm and cordial accommodation of

the local people, the active promotion of tourism, the government's liberal policy on tourism and land ownership and the Red Sea's strategic location, particularly for European tourists. As well as adventure tourism and marine sports, where many marine competitions and festivals are held every year, such as fishing and underwater photography, and there is also medical, historical and religious tourism, conference and seminar tourism. There is also safari tourism due to the presence of deserts, mountains, and the availability of many wild animals and birds.

32. In 2017, there are 178 hotels in Hurghada and resorts with many small tourist boats and yachts on their seashore. Based on a rough calculation, these hotels and resorts have more than 44,400 rooms at average occupancy rate of 62% lodging about 4 million (3,953,665) tourists every year. Primary data collection involved the official data of the ministry of tourism in Egypt [ix].

33. Currently, there are more than 80 hotels in the Green Star Hotel initiative distributed in a group of tourist destinations: Makadi, Coraya, Hurghada, Marsa Alam, Safaga and Sahl Hasheesh in the Red Sea Governorate, Ain Sokhna in Suez, Sharm El Sheikh, Taba and Dahab in South Sinai, in addition to Cairo, Alexandria, Luxor, and Matrouh [x].

34. Diving, snorkeling and water sports are among the most important attractions for tourists, especially on the coasts of the Red Sea. Hurghada has 57 registered diving centers These basic centers have branches in different hotels.

See Annex F for the key facts about Hurghada metropolitan area.

### **Baseline Scenario: (Tourism, Energy consumption, Transport)**

#### The Tourism Sector and Biodiversity

35. The tourism sector in Egypt it contributed about 9% to the Egyptian GDP (USD 30 billion), employing more than 3.5 million Egyptians (about 15% of Egypt's workforce) in 2019 [xi]. The total number of overnight stays amounted to 136 million [xii]. Government-driven investments and the resulting continuing construction and development boom are mirrored in the growth of hotel establishments and holiday home complexes. The total number of hotels and hospitality structures in Egypt along with the lodging capacity has increased considerably in the past years. The vast majority of this growth has taken place along Egypt's coasts.

36. With the political stabilization and improvement of the security situation after 2017, private sector investments in the tourism sector were increasing up until COVID-19 pandemic. The Government of Egypt (GoE) had ambitious plans to further increase the tourism offer, most notably along the Red Sea. The goal was to host 25 million international tourists by 2020 cannot now be met due to the spread of COVID-19 by the original timeline. However, the government policy to support tourism remains and the private investment is expected to resume its growth 2021 in line with the recovery from the pandemic. Tourism and related services are expected to be revived in the forecast period. Confidence in hard-currency availability would attract foreign investors from 2022. With growth becoming broader-based and unemployment falling, consumer spending should accelerate in 2022-25.

37. It is crucial that this revived tourism investments are steered towards sustainable and biodiversity friendly investments to ensure building back tourism better. GoE established a green tourism program, to support the hotels to invest in energy efficiency and renewable energy projects. Another initiative is the Green Star Hotel (GSH) which is a national green certification and capacity-building program managed by the Egyptian Hotel Association (EHA).

38. Presently, there are 178 hotels in the city, 60% having solar water heaters on their roofs, but mostly in no or low functioning capacity. In addition, there are 162 tourism companies, 28 safari offices operating desert tours, 189 diving centers, 96 aqua centers and 101 touristic restaurants. There are also various touristic activities that require transportation such as yachts, boats, cars and buses. The average distance travelled by tourists in the City is 38 km per day which is suitable for electric vehicles. Hotels in the City of Hurghada consume 653,939 MWh/year of electricity, 18 million m<sup>3</sup>/year of natural gas and more than 2 million m<sup>3</sup>/year of sewage water is produced. In addition to this, hotels consume 36,500 tons of diesel and gasoline each year for water heating.



39. Tourism in Egypt is predominantly focused on recreational sun & beach tourism (86% of international arrivals and also the largest share of domestic tourism), and to a secondary degree on the country's outstanding cultural heritage. However, some key destinations also heavily rely on the marine ecosystems, most notably healthy coral reefs, for their business. This applies particularly to the already-large city of Hurghada (pop. 280,000) with its satellite El Gouna as well as to Marsa Alam (pop. 10,000) on the mainland Red Sea coast, and to Sharm El Sheikh (pop. 75,000) and neighboring Dahab (pop. 15,000) on the southern tip of the Sinai Peninsula.

40. Maritime transport is a major source of negative environmental impacts, yet daily and safari boats are an important means to transport tourists to the diving centers and excursion points along the coast. There are roughly 2,000 boats (yachts, fisher boats) and an additional ~500 diving boats operated by the diving centers. Replacing diesel boats with electric boats has the potential of reducing fuel leakages and emissions to the sea, therefore reducing the impact on the maritime environment and at the same time avoiding anthropogenic noise pollution, thus safeguarding the marine species. In addition to their climate advantages, electric boats have low levels of noise and vibration.

41. Anthropogenic noise is now globally recognized as a stressor, directly or indirectly impacting all fauna and, as such, the push to minimize its production is growing [xiii]. Sources of anthropogenic noise pollution include shipping, fishing fleets and other commercial vessels such as diving boats, private recreational boats, and blasting devices for oil, gas, and mineral prospecting [xiv]. Replacing diesel boats with electric boats has the potential of reducing anthropogenic noise pollution, thus safeguarding the marine species.

42. The Green Star Hotel (GSH)[xv] is a national green certification and capacity-building program managed by the Egyptian Hotel Association (EHA) under the patronage of the Egyptian Ministry of Tourism. The GSH program offers an opportunity for hotels operating in Egypt to be internationally recognized for raising their environmental performance and social standards while reducing their operational costs. The Green Star Hotel rating system is based on a certification system where "Green Stars" are awarded according to the level of environmental performance of the hotel. A team of certified local and international experts guide interested hotels through a sequence of training and information support sessions leading to field audits to ensure compliance with the program standards prior to granting the GSH certification. Around USD 2,000 is request for the certification process (auditing) depending on the hotel size, while the overall investment per hotel to meet the requirement are around USD 400,000. 10 hotels in Hurghada and 16 in El Gouna joined the program, representing a baseline of USD 9.6 million private investment.

43. The growing volume of tourism and maritime activities cause air pollution and biodiversity loss due to solid and organic waste as well as increase the pressure on the City's infrastructure. With the takeover in 2014 of the sanitary waste sites of Hurghada, HEPCA is contracted to organize the proper collection and disposal, material recovery, and recycling within the city premises.

44. Nevertheless, tourism sector remains to be one of the sectors most affected by COVID-19 pandemic due to travel restrictions. The government announced stimulus packages to support tourism sector in Egypt. It is crucial to steer the stimulus programs towards green investments to ensure a sustainable and resilient recovery of the tourism sector.

45. Hurghada shares the common urban challenges with the other developing touristic, coastal cities, along with other best practices like Sharm El-Sheikh being developed under a UNDP-GEF project to become a Green City. The lessons from this and other similar projects will be shared with other coastal cities in Egypt and in the region to showcase the environmental and economic benefits of integrating circular practices. The best replicable solutions will create a source of practical knowledge towards increasing sustainability and resilience of the cities in the MENA and Mediterranean region and around the globe.

46. There is no geographical overlapping with GEF ID 5073 *Mainstreaming the Conservation and Sustainable Use of Biodiversity into Tourism Development and Operations in Threatened Ecosystems in Egypt*, UNDP (2019-2023). The project area of GEF ID 5073 is located in the center/south of the Red Sea. Hurghada on the other hand is located on the northern side of the Red Sea in front of separate PA called Red Sea Islands. Baseline requirements will be adapted to the specific requirements of the project area in Hurghada. The project will coordinate with existing projects on BD-policy development and SEA implementation, lessons learnt will be identified and shared in coordination with other projects. Further details will be provided during PPG phase.

**Energy Consumption [xvi]**

47. Egypt is a country with a high potential of natural resources: precious stones, natural gas, oil, coal and large reserves of fossil fuel energy sources; approximately 4,189 billion barrels of oil reserves and an estimated 77,200 billion cubic meters of natural gas reserves, as the reserves are in the form of both mainland and coastal deposits. While more than 90% of the Egyptian generated electricity comes only from oil and natural gas, the major problem that Egypt encounters, especially in the energy-sector is the dynamic growth of population, which is estimated by around 1.3% per year, consequently increasing demand, which eventually fastens the rate of depleting the country's major resources [xvii].

48. Egypt's power demand has grown consistently over the past decade, recording an annual growth rate of 6%. In 2016, the peak load demand was close to installed capacity[xviii]. In 2014, the MOERE initiated plans to add 51.3 GW of conventional and renewable sources to respond to the growing power needs, based on an estimated annual requirement for new capacity of approximately (though not consistently) 2.5 GW per year, as illustrated in the Figure below. Given the increase in installed capacity, total electricity generation in 2015/16 amounted to 186,320 gigawatt hours (GWh), whereas total electricity consumption was 156 300 GWh in 2015/16, resulting in sufficient reserves of over 16.11% to meet electricity demand surges. Electricity is consumed by different end users in the economy, divided between residential (47%), industrial (25%) and commercial (12%), with the remainder used by government, agriculture, public lighting and public utilities (4%).

49. Egypt's economic development hinges on the energy sector, which represents 13.1% of overall gross domestic product (GDP). To meet burgeoning energy demand, the Egyptian government has pursued an energy diversification strategy, known as the Integrated Sustainable Energy Strategy (ISES) to 2035, to ensure the continuous security and stability of the country's energy supply.

50. The economy will expand strongly in 2021/22, by 4%, as global demand picks up in earnest and new energy projects gain momentum, increasing investment. Lower unemployment will boost private consumption, but widespread poverty will constrain consumer demand growth. The construction and energy sectors will be the main engines of growth in the middle of the forecast period.

51. Tourism and other export and services sectors will revive later in the forecast period. Confidence in hard-currency availability will recover and attract foreign investors from 2022. With growth becoming broader-based and unemployment falling, consumer spending should accelerate in 2022-25.

52. By adopting the right policies, Egypt could realistically draw 53% of its electricity from renewables by 2030. This higher uptake of renewable power, when combined with renewables used for heat and transport, would end up reducing total costs, including energy, environmental and health-related costs by USD 9 billion per year on average compared to current energy plans.

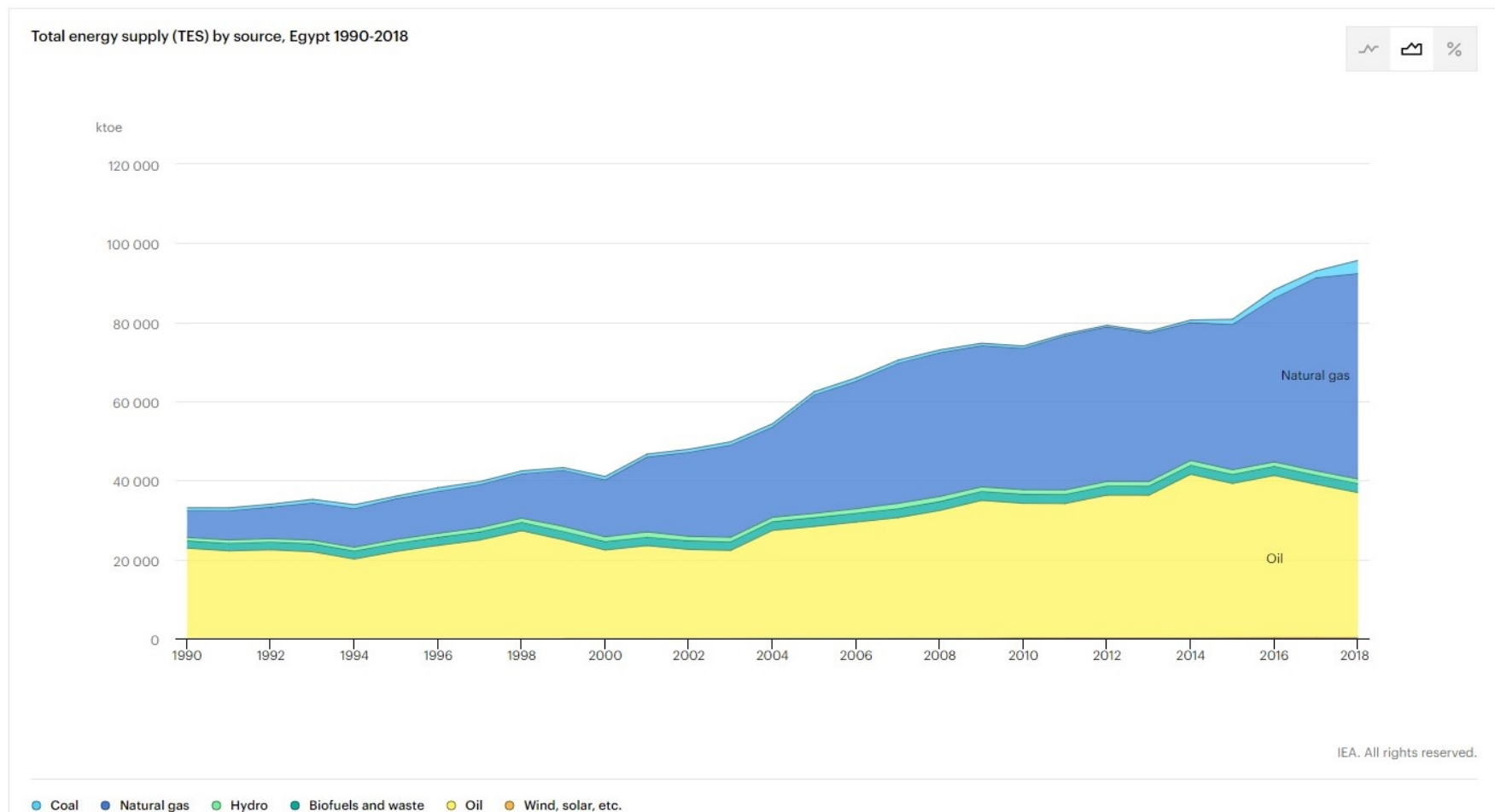


Figure 3: Egypt energy supply by source[xix]

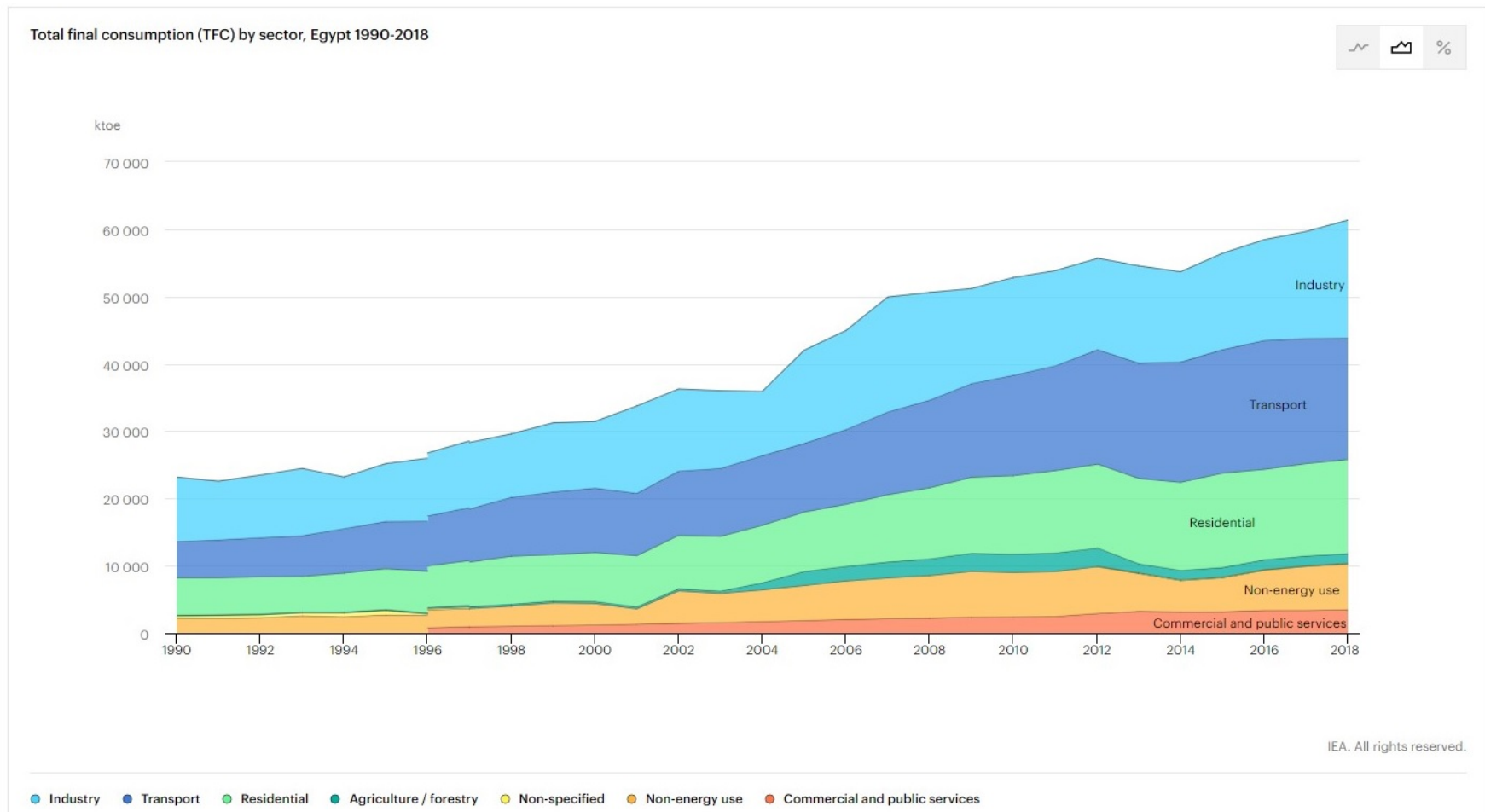


Figure 4: Egypt energy consumption by sector[xx]

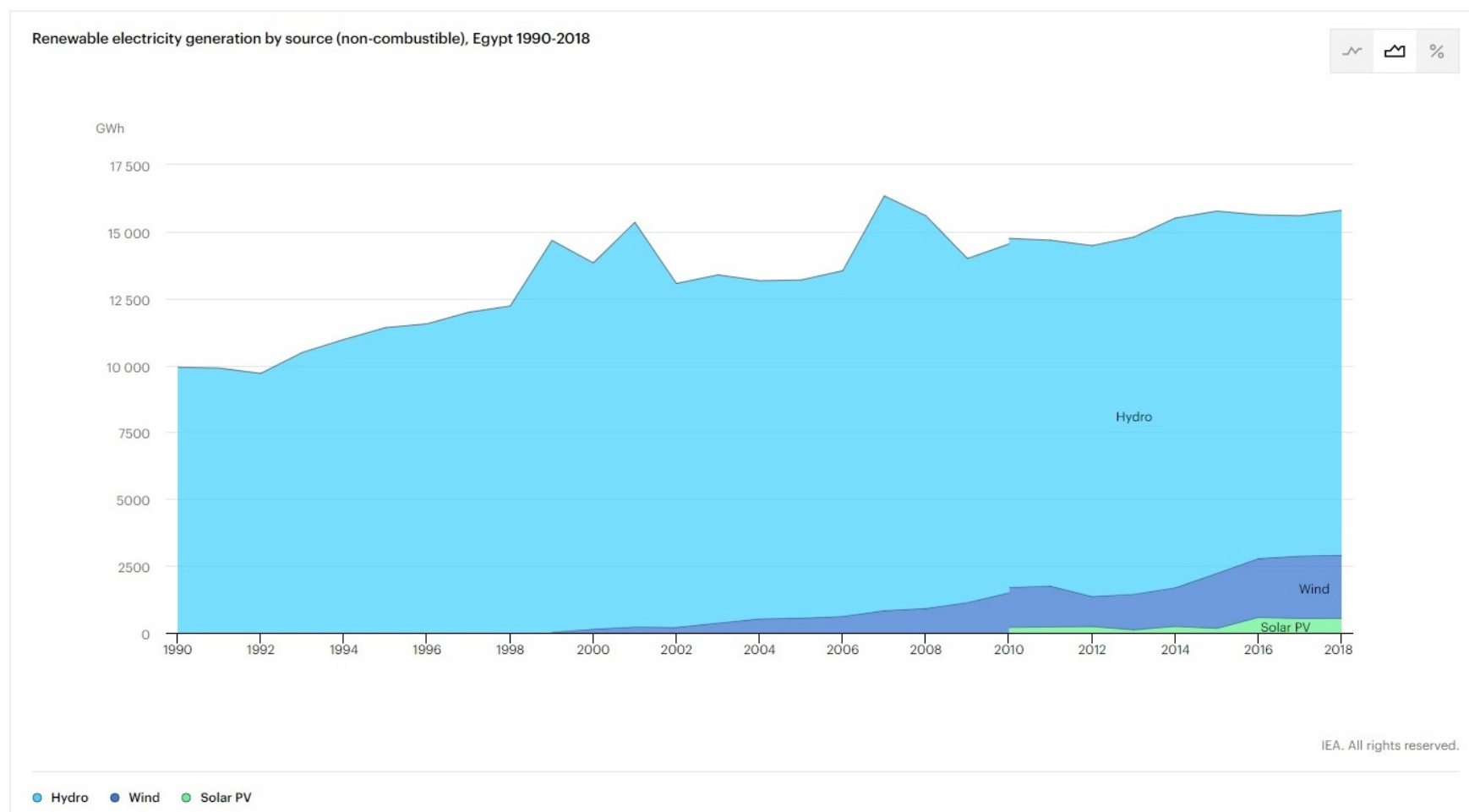


Figure 5: Egypt renewable energy generation by source[xxi]

53. Like other emerging economies, there is a growing demand for electricity in Egypt. The combination of population and economic growth, increasing demand for existing customers, and high subsidies for fuel have strained the Egyptian energy sector. Electricity consumption has almost doubled during the last decade increasing from about 49.3 TWh in 1996/97 to 98.5 TWh in 2006/2007 then reached 152.5 TWh in 2014 [xxii] representing an average annual growth rate of 6-7%. Meanwhile, the peak demand has jumped from 27,000 MW in 2012 to 29,200 MW in 2016 and is expected to reach 54,000 MW in 2022.

54. While more than 90% of the Egyptian generated electricity comes only from oil and natural gas, the major problem that Egypt encounters, especially in the energy-sector is the dynamic growth of population, which is estimated by around 1.3% per year, consequently increasing demand, which eventually fastens the rate of depleting the country's major resources [xxiii].

55. Egypt experienced a significant power shortage during this period and blackouts that were initially confined to rural areas then reached everywhere in Egypt and affected the economic and industrial activities between 2012 and 2014. The appearance of load-shedding in the capital and major cities was a clear indication of increasingly severe problems. Installed nominal capacity increased to 39 GW in 2015 [xxiv].

56. Egypt has developed a plan to increase the contribution of renewable energy to 20 % of the electricity generated by the year 2022, of which 12 % of wind power plants is foreseen, mostly at the Red Sea Coast between Zafarana in the north and Wadi Dara in the South. In 2014/2015, the first wind farm (200 MW) in the Gabal El Zayt region, located about 110 km northwest of Hurghada, has been constructed and put into operation. One other wind farm (220 MW) in that region has been completed in early 2017 and a third wind farm (120 MW) was completed in 2018.

57. Hotels are considered one of the highest energy consumers and are therefore responsible for large amounts of carbon dioxide emissions. Most of the energy consumption is for water heating, general heating, cooling, as well as lighting. Therefore, the potential savings on energy for both heat and power are significant in the hotel sector, especially in geographical areas where solar irradiation is high.

58. On energy efficiency (EE), Egypt has made important strides in energy efficiency in the last five years, but more rapid adoption is still required in the tourism sector. The country has, however, made significant progress in the EE scoring in the 2017 Arab Future Energy Index Report on Energy Efficiency since 2015 and has risen three places in the latest regional EE rankings[xxv]. This progress is due in part to the implementation of several key EE policies and a variety of EE interventions supported by the GEF-funded “Improving the energy efficiency of lighting and other building appliances” project, as well as reduced subsidies for both electricity and fuel introduced in recent years, as part of the government’s 5 years plan to remove energy subsidies by 2020. However, much of the support for EE measures has focused either on the twin metropolis of Cairo and Alexandria or on ‘new cities’ such as El Gouna or Sheikh Zayed.

#### Transportation

59. The transport sector sees energy demand increase by 93% between 2014 and 2030. Oil products meet 95% of this increase in demand, with only small additions from liquid biofuels and electricity. The renewable energy (RE) share in the sector is just 2% in the Reference Case. REmap focuses on identifying the potential of Electric Vehicles (EV) in various modes, and as a result the demand for electricity in the sector almost triples. The number of private EVs on the road by 2030 would be total 700000 and the renewable energy share in the sector would increase to 11%. REmap also assumes some additional liquid biofuels, namely biodiesel [xxvi].

60. In the road transport sector, the fuels consumed are mainly diesel and gasoline for motor vehicles in Egypt concentrated in urban road transport.

61. Following the global trend, a significant potential exists for improving the public transport means as well as shifting towards electric mobility – an emerging technology that could provide an important link with the power system when coupled with renewables such as solar PV or wind, from which Egypt is expected to generate significant power in the future. EVs are also a means to drive down levels of air pollution and PM2.5 in urban areas and serve as “batteries on wheels” to store the variable energy produced by renewable energy sources.

62. The policy environment in Egypt is yet under development to accommodate nation-wide rollout of electric vehicles (EVs), but there are a number of key strengths that may provide a stepping stone for a larger framework of action: Custom duty exemption for electric cars are in place since 2013 (and maintained in 2018 provisions), public procurement of full electric buses in Alexandria, and charging stations being rolled out starting with demonstrational stations in Cairo, in the New Administrative Capital, and elsewhere, as well as planning for assembling/manufacturing EVs and charging stations by public and private sector players. A further incentive of allowing import of used electric cars has been initiated by a decision by the Ministry of Trade and Industry, although the policy impact must still be investigated (e.g., to assess and mitigate the risks related to introducing used batteries, etc), and the licensing of electric vehicles has been partly formalized within 2019 (yet pending further regulatory development).

63. Egypt’s grid emission factor shall continue to decrease (i.e., cleaner electricity in terms of CO<sub>2</sub>) due to planned relatively more efficient Combined Cycle Gas Turbines (CCGT) power plants, and expansions in new and renewable energy in the pipeline, which further magnifies the benefit of EV deployment when compared to conventional vehicles.

64. With regards to EVs promotion, high-usage, high-occupancy vehicles should be prioritized in order to maximize relative benefits (taxis, buses, minibuses, tuktuks, ride-share and car-share fleets, company fleets, etc), due to the improvement of the relative Total Cost of Ownership (TCO) (i.e. the comparison with gasoline/ diesel vehicles generally improves when the EV is being used more throughout its lifetime), rather than private cars. Such an approach should be reflected in available incentives (e.g., custom duties remain high for electric buses, 40%, while electric cars receive full exemption, despite being destined to private use).

65. In the last 30 years, installed electric chargers in Egypt have exceeded one hundred points, predominantly of AC chargers. There are a few players yet setting up/operating chargers, e.g., the Egyptian start-up company Revolta Egypt, has established notable presence through cooperation with state-owned fuel distribution company National Petroleum Company (NPCO) to install EV charging stations at their gas stations. They envisioned the deployment of 300 charging stations throughout year 2021, along with further plans to initiate after-sales services for EVs as well as explore deployment of electric taxi services. Key challenges have been the lack of accompanying regulatory and administrative considerations to facilitate EV ownership and licensing and certainty about the regulatory environment and tariff scheme to be implemented. The Egyptian company Infinity-e is rolling out EV charging points at gas stations and selected gated communities. Developments in new urban communities are also increasingly considering charging infrastructure at the early stages of development, such as evolving plans in the new administrative capital, however, not yet it seems in touristic centers.

66. The electrification of marine transportation is gradually increasing despite the technological challenges. With ships contributing around 2.2% of global emissions, the industry is looking for disruptive change to reduce its carbon footprint by 50% by 2050. Electric propulsion technology is currently considered suited for slow-speed vessels, or where there is a regular service between relatively close ports allowing frequent charging. Examples include in-port ferrying between shore and vessels, slow personal watercraft, slow "nature tours" such as tourist boats, regular ferry services, etc. The operations are preferred to be in sheltered waters to allow for minimum propulsion designs (i.e., and not designs that have significant reserve available).

67. Possible feasible options include the application in smaller vessels (e.g., personal watercraft powered by around 5 kW e-outboards for fishing in local/inshore waters for instance with battery capacity of 2 kWh batteries). At this size it is possible to augment the batteries with on-board solar which reduces the amount of onboard battery capacity required. The batteries can have the option to be able to be lifted, providing the option of battery-swapping, or at least making it easy for at-home charging.

68. Dive boats are 22 m-40 m vessels set up for liveaboard dive operations, with many dive areas a reasonable distance from the service ports (10 km-90 km). This requires a considerable amount of energy to be consumed to get there and back/for a port-to-port round trip. The engines of the dive boats are normally diesel. Replacing the engines with more electric motors and battery storage would be reasonably costly. The batteries involved would likely take up valuable accommodation/other space, etc., and the added weight of the batteries would increase the propulsive power required to steam at the same speed. Since the vessels are anchored for the vast majority of time, the payback period of the retrofitting investments could be long. In addition, significant additional costs on safety features should be taken into considered in the investments. Hybridization is particularly beneficial for larger vessels. It combines the best electric benefits of low speed, silent running and station keeping with the high speeds achieved through diesel. Clever strategies can be used that ensure diesel engines run for as little time as possible, and at more optimal fuel-efficient loads points when they do.

69. Another application option involves lithium-ion batteries to provide house loads (i.e., auxiliary loads) and possibly small maneuvering power via a separate electric propulsion system (e.g., via thrusters or telescopic electric drive options). This can totally avoid at-anchor operation (e.g., mooring around coral reefs in case of dive boats) of the main engines or reduce the operation of the separate generator, if one is fitted. There are several advantages with this including reducing main engine/generator hours (results in lower per-trip service costs), avoiding noise and vibration (less impact on BD), and the size/cost of batteries involved are getting increasingly more feasible. The smaller battery size also allows it to be more easily isolated from liveaboard areas, safety-wise, etc. The technology is also well proven.

70. One positive global trend is that the battery costs are expected to drop significantly in the near future. In the last decade, battery prices have fallen 87% to reach around US\$ 150/kWh today. By 2023, average prices are expected to be close to US\$ 100/kWh and further down to US\$ 61/kWh by 2030, according to the latest forecast from Bloomberg NEF (BNEF). [xxxv]



## Baseline Policy - Country and Governorate Level

71. The **Egypt's Green Economy Strategy 2030** serves as the national sustainable development strategy [xxvii]. Sustainable city development and clean energy are among the main pillars in the 2030 strategy. The pillar outlines six objectives for the energy sector in Egypt: 1) ensuring energy security; 2) Increasing the contribution of the energy sector to GDP; 3) Maximizing utilization of domestic energy resources; 4) Enhancing rational and sustainable management of the sector; 5) Reducing the intensity of energy consumption; and 6) Limiting the environmental impact of the sector's emissions. Under these objectives, the strategy has also developed programs to develop an integrated medium and long-term energy strategy, restructure the energy sector to increase efficiency, energy security, reform legislative frameworks, develop electricity sector infrastructure including the use of smart grids, demand side management, and energy storage, and applying environmental standards. The Green Economy Strategy highlights further significant challenges for the **transportation sector** including weak planning framework for managing transportation system, weak public transportation capacity compared to demand and the deteriorating quality of mass transportation. [xxviii]

72. The Governorate of the Red Sea has a strategy to make Hurghada a 'Green City', and in the long-term a carbon neutral city [xxix]. The City of Hurghada, keeping in consideration of its specific values and the local context, developed a strategy consistent with Egypt's Vision 2030, the Energy Strategy 2035 and the Sustainable Development Strategy 2030. This strategy is structured on two pillars:

- Reduce energy consumption in all sectors through energy conservation and efficiency, in order to provide better services while reducing costs and impacts; and
- Promote energy production from locally available renewable resources in order to cover, as far as possible, energy needs from these decarbonized sources.

73. The Development Strategy will help the Governorate to reduce its dependency on energy imports from outside its territory, reducing its financial needs to fund these imports. Relevant medium-term and long-term objectives (2030) of Hurghada include:

- *Boost efforts to reduce energy consumption and improve efficiency* resulting in a continuous trend of improvement in energy intensity (energy consumption compared to gross development product) in tourism industry, public services infrastructure and transportation (including maritime transport),
- *Continue reducing GHG emissions* with the objective of reaching at least a reduction of 27% by 2030. Such an effort will place the city in the appropriate trajectory to match the collective target agreed at international agreements
- *Optimize service delivery to inhabitants and all stakeholders* in order to speed the energy transition towards sustainable development,
- *Develop renewable energy production capacities in and around the city, as well as in the southern region of the Governorate*
- *Anticipate risks and adapt to climate change*
- *Raise awareness of all citizens to promote sustainable transportation and public network to reduce GHG emission and improve air quality in the city*
- *Strengthen the City of Hurghada's attractiveness, positioning the city as an example of responsible tourism example.*

74. The Government has established a number of projects to address challenges related to biodiversity conservation [xxxvi]. The two main examples are given below:



- Improved infrastructure and management necessary to develop biodiversity protection efforts (2020-2025): The programme aims to empower efforts to conserve ecosystems and biodiversity by developing their infrastructure and management.
- Increasing participation of the civil and private sector in biodiversity conservation and protection efforts (2025-2027): This programme aims to reduce the financial and administrative burden of implementing biodiversity conservation programmes by engaging the private sector and strengthening community participation frameworks.

75. In addition, the Ministry of Environment has developed biodiversity conservation policies through:

- Reducing the negative impacts of different sectoral policies (land-use planning, transport, energy, uncontrolled urbanization, etc.) in particular on biodiversity, and implementing measures to correct these impacts through the development and implementation of land-use plans.
- Promoting the implementation of good fishing practices and sustainable harvesting in order to conserve fish and their habitats, restore and protect key biological resources
- Developing and expanding the network of reserves' areas to include 17 per cent of total land and inland waters and at least 5 per cent of coastal and marine areas; and prioritizing sites of particular importance to biodiversity and key ecological processes and effective management of these reserves.
- Developing and implementing a unified Egyptian methodology for identifying and monitoring all the components of biological diversity in accordance with international standards to ensure the conservation or rehabilitation of 50 per cent of the most threatened species with a focus on mammals and reptiles.
- Developing and implementing national programmes for the protection and rehabilitation of endangered and indigenous species.
- Adapting to and minimizing the potential risks of climate change in Egypt, verifying priority setting, taking necessary measures and providing funding mechanisms to address and monitor all impacts of climate change on natural resources, coastal areas, biodiversity and ecosystem services.
- Consideration and implementation of measures and strategies to enhance the capacity of biodiversity to combat desertification at the local level.

76. The Prime Ministerial Decree No. 1599/2006 on the protection of Egyptian Seashores specifies that two hundred meters inwards from the shoreline are considered crucial areas of special nature and require integrated management and protection from tourism development. In addition, the Decree no.80/1989 concerning standards, stipulations and the technical regulations for tourism development projects, acts as the basis for planning when conceptualizing a detailed and comprehensive plan for any beach area.

77. The enforcement of these Decrees is foreseen under the Integrated Coastal Zone Management (ICZM) which clarifies the concept and coordination requirements in the amendments of the Environmental law, with Ministry of Environment (EEAA) the authorized entity. As such, new projects are typically subject to detailed studies and the preparation of EIAs, even though the level of scrutiny and verification may not always ensure compliance with the higher-level planning policies. The above demonstrates that a regulatory framework is in place, yet an informed and evidence-based consideration of the impact of new projects on the specific nature and environmental value of the coastal zone is not sufficiently foreseen. The project will support the regulatory level as well as project developers in their capacity to better assess and evaluate such impact.

78. **See Annex G** for the detailed description of the relevant policies and regulatory framework set by Egypt to promote green investments in the tourism sector with a focus on sustainable urban and green economy development.

## Baseline Projects

79. The Sustainable Energy and Climate Action Plan (SECAP) for Hurghada was developed in 2017 as part of the CES-MED (Cleaner Energy Saving Mediterranean Cities) project, funded by the EU. The CES MED project aims to support the cities in developing their SECAP in unison with the already existing strategies for the city of Hurghada. This project will build on the outcomes and recommended actions of the SECAP. The project will identify priority projects targeting tourism industry among the proposed pipeline projects in the SECAP and prepare them for investment through feasibility studies and business plans. The project will follow the recommended action on developing Sustainable and Green Tourism Plan (SGTP).

80. EBRD research titled *"Sustainable Energy Support for Built Environment Projects Review of Sustainable Energy Opportunities in the Hotel Sector of Egypt (Red Sea and Sinai Region)"* [xxx] found that the design of the majority of the hotels led to significant energy consumptions and in particular mechanical refrigeration air conditioning. The study found that cooling demand is the largest energy consumption in the resorts, but only 28% of the hotels have centralized cooling systems for common areas and/or guest rooms; and most of them (81%) use split units for the guest rooms where they can freely control the temperature. Public areas are generally cooled using central air condition with large chillers. Guest rooms can use either central (mainly 5 stars) and/or split systems (4 stars and 3 stars). All HVAC systems are electrically powered with the exception of a very small number of absorption chillers. The energy demand for cooling is exacerbated as there is a relatively low penetration of variable speed drivers on fans, pumps and other motors. Various studies have shown that significant energy savings could be achieved by e.g., switching from individual splits to centralized cooling systems, replacement of air-cooled chillers to absorption chiller or installation of waste heat recovery systems.

81. The UNDP-GEF proposed project "Green Sharm" (GEF ID 10117) is to turn Sharm El Sheikh into a model integrated and ecologically sustainable tourism city of national and international importance through the adoption of further low-carbon technologies, good waste management practices and a further-enhanced protection of its natural capital basis. This will be achieved by developing an integrated Sharm El-Sheikh Sustainable Development Strategy (SESDS) and Action Plan, with a focus on technical assistance, capacity building and demonstration of good practice for climate change mitigation, chemicals and waste prevention and management, through a series of pilot investments, organization and development of an integrated sustainable development strategy and its implementation plans, and promotion of enhanced biodiversity protection measures, in conjunction with national priorities and needs articulated by the Government.

82. The Project shall capitalize on the Green Sharm multi-framework initiative by promoting the integrated municipal development strategy and policy framework for green tourism development (component 1) that incorporates climate change mitigation and biodiversity protection into a sustainable investment program focused on climate resilient tourism infrastructure, transport and management of sensitive maritime and coastal ecosystems. The Hurghada project shall furthermore benefit from the component 3 outcomes of the Green Sharm Project to coordinate and further strengthen the planning and management of marine and coastal PAs and better manage and mitigate biodiversity-harmful economic practices in the long term. Both cities, being the major touristic hotspots in the Red Sea, shall therefore become best practice touristic destinations in terms of infrastructure development with the active involvement of the policy-makers at national, regional (directorate) and local level and private sector representatives from touristic operations. While the investment focus of Green Sharm will be on clean energy, improved waste management/minimization and biodiversity-friendly practices at hotel and touristic infrastructures, the Greening Hurghada will further promote efficient and clean energy use in hotels, land and maritime transportation systems and thus avoid the environmental impact along the Northern Red Sea coast.

83. The UNDP-GEF Project "Mainstreaming Bio-Diversity in Egypt Tourism (MBDT)" (GEF ID 5073) aspires to mainstream sustainable practices and the conservation of biodiversity which are of vital importance for the productivity and continuity of the tourism sector in Egypt. MBDT goal is to strengthen the legal, policy, regulatory and institutional frameworks at national and sub-national levels used to plan, license and oversee tourism activities and developments in Egypt as means to enhance sustainable practices among service providers and operators.

84. The project objectives shall capitalize on the MBDT specially with its first component focus on Strategic policy framework for a green recovery and sustainable growth of the tourism sector where the principles of sustainable tourism planning and management will be integrated in future development policies, plans and programs to reduce the anthropogenic pressure on the ecosystem around Hurghada. Adding to that the development of a suitable policy package to enable and promote sustainability and green investments in the tourism sector.

85. The project is divided into three main components:

- Firstly, the project aims to make sure that the direct adverse impacts of tourism infrastructure development on biodiversity are avoided, reduced or compensated.
- Secondly, the project aims to reduce the negative impacts on biodiversity caused by inappropriate practices from tourists and tourist establishments.
- Thirdly, the project aims to strengthen the existing PA system and its management in three target regions with high levels of biodiversity that are exposed to tourism development and activities.

Finally, the Greening Hurghada project will consider using the knowledge tools that will be developed under the recently approved UNIDO GEF project "Using systemic approaches and simulation to scale Nature Based Infrastructure for climate adaptation (ID 10632)", especially to informing decision makers and other stakeholders on cost-benefit analyses of nature-based solutions.

86. **HEPCA Activities:** One of the most active players when it comes to municipal waste management, marine and coastal environmental protection and conservation is HEPCA, an internationally recognized NGO specializing in the field of marine and land conservation. HEPCA is engaged in various projects to encourage the understanding of the impact of climate change on the Red Sea Region:

- Recycling and solid waste management: HEPCA handles solid waste in Hurghada, collecting 600 tons of solid waste every morning. HEPCA's solid waste management authority extends two hundred kilometers, starting at its northern most point at Port Ghalib and ending in the south at the small town of Beranice. The waste collection scheme has 34 subscribing resorts and businesses.
- Development of a sustainable hotels' initiative: HEPCA is working alongside the Governorate to offer practical solutions and substitutes for plastic bags.
- Creation of a schools' educational curriculum: HEPCA designed a Healthy Habitat Education Program. together with teachers and scientific experts. The sessions are informative and aim to establish awareness about local environment.
- In addition, HEPCA initiated training programs for more than 800 boat skippers and hundreds of additional boat crews throughout the Red Sea region on preservation of the coral reefs and marine life.

87. **Central Bank of Egypt (CBE)'s Measures to Offset the Impact of COVID-19.** CBE provides several packages and financial support instruments to help the tourism sector recover from the pandemic. By the end of 2019, prior to the outbreak of the pandemic in Egypt, the CBE announced the largest financing plan to support the tourism industry, which includes increasing the value of its initiative to renovate and develop hotels from LE 5 billion to LE 50 billion. In March 2020, in response to the pandemic, CBE instructed all banks to introduce further measures supporting the tourism sector, including introducing credit facilities for tourism enterprises to be paid over a maximum of two years with a six-month grace period to pay the salaries of employees as well as their obligations towards suppliers and maintenance work. In June 2020, the CBE approved an initiative launched by the finance ministry in May to support the tourism and hotels sector against the severe repercussions of the pandemic in response to President Abdel-Fattah El-Sisi's orders. The initiative included offering an EGP 3 billion insurance credit for the CBE to give to national banks to provide three-year loans to hotels and tourist facilities with a discounted interest rate of five percent. The CBE raised the maximum limit for loans based on the salary of the workers who benefit from the initiative to EGP 25,000, instead of EGP 15,000. In January 2021, the CBE has extended for six months the two initiatives focused on the tourism sector. The initiatives will end by late June 2021 and both are meant to support the sector that has been ailing under the coronavirus.

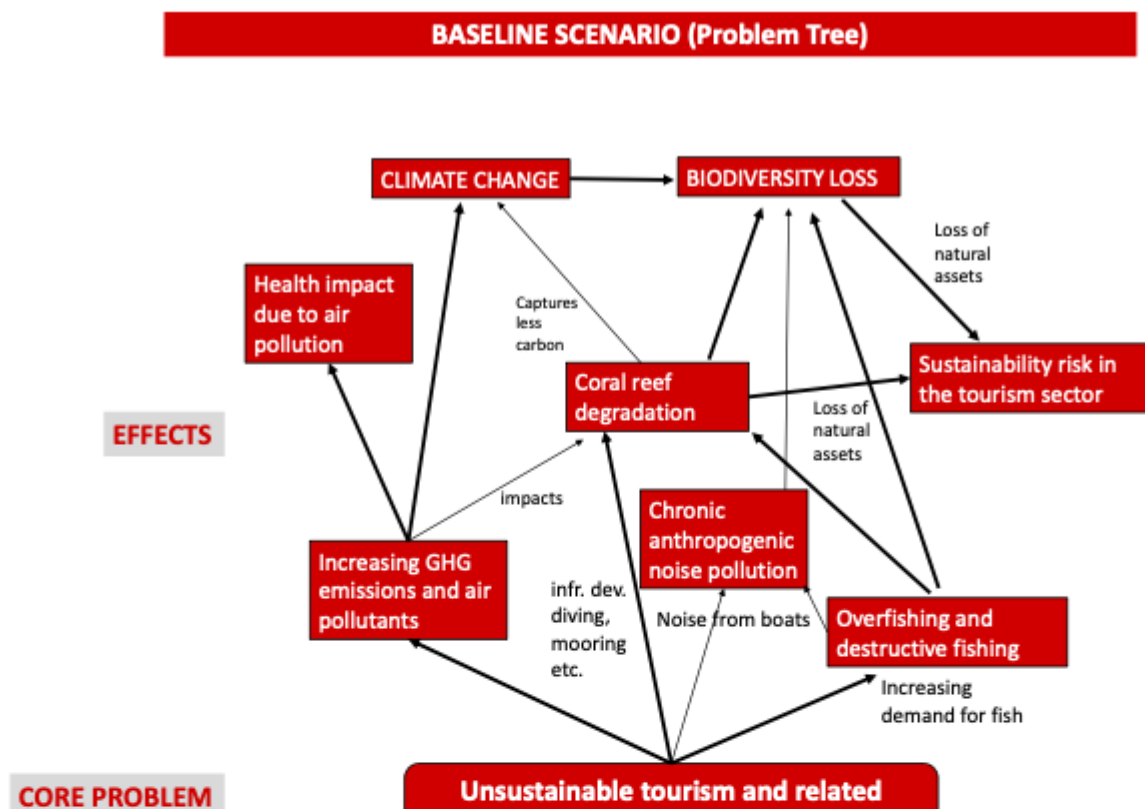
88. Based on the initial consultations conducted with the CBE, the hotels and other tourism enterprises in Hurghada are eligible to use CBE financing. The project will link the pilot tourism enterprises with the CBE or other similar national recovery packages with the aim to secure co-financing for the green technology investment projects. During the PPG, further engagement will take place with the CBE to investigate the criteria and the details of the application processes and recommended models.

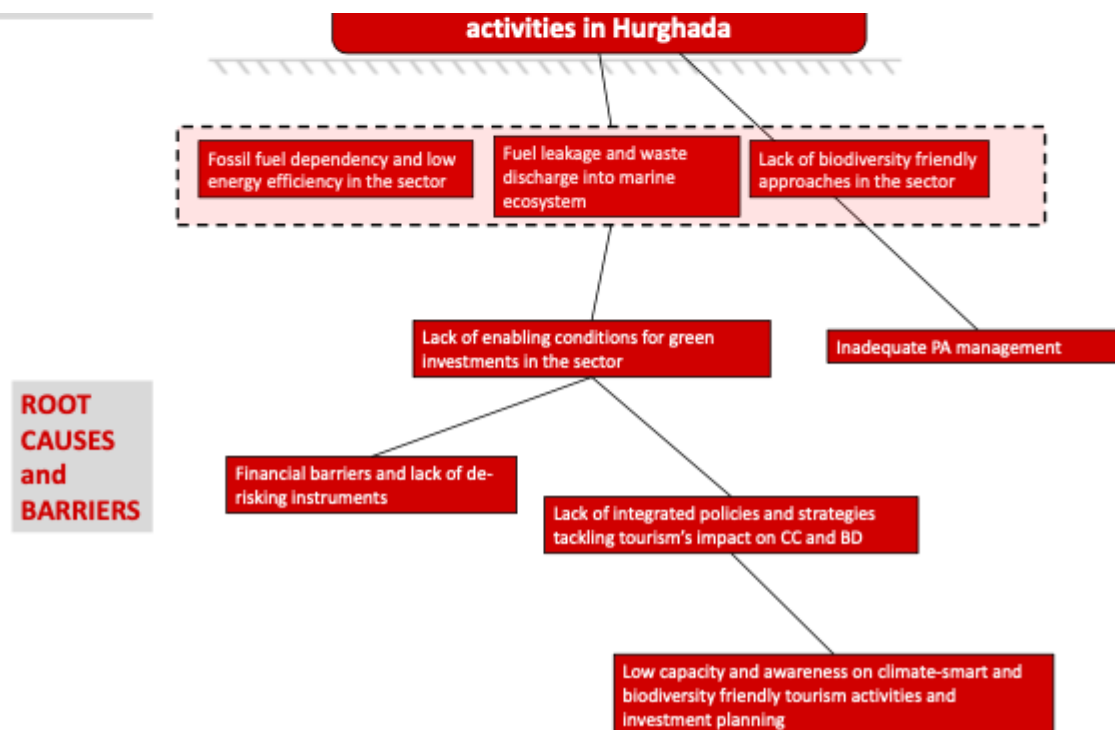
89. **Green Value Chain (GVC)** credit line [xxxii] provides finance and TA for private sector SMEs to support their competitiveness and growth by strengthening product quality and adding value, improving standards, and creating an enabling environment for exports. The facility supports CapEx investments through local participating FIs in general and gives a special emphasis to green technologies. Through the Green Technology Selector businesses are able to identify the most suitable high-performing equipment and materials eligible for financing. The Facility is promoted by the **European Bank for Reconstruction and Development (EBRD)**, and supported by the European Union (EU) and the Green Climate Fund (GCF).

90. Another EBRD TA assistance program (in cooperation with UNWTO) to Egypt for recovery of the tourism sector is under development and expected to incentivize job creation as a key cornerstone of the cooperation package, which seeks to identify support mechanisms for tourism enterprises, particularly for small and medium-sized enterprises, in order to support the local economy and strengthen local linkages.

91. Further relevant national and city-level initiatives will be identified during the PPG stage, as well as planned and ongoing development projects (incl. WB, UNDP, EU proposal on greening the transport system in Hurgada and/or in the Red Sea Governorate); the project will support the setting up of a coordination mechanism between the mentioned financial institutions to support climate resilient and nature-based infrastructure development.

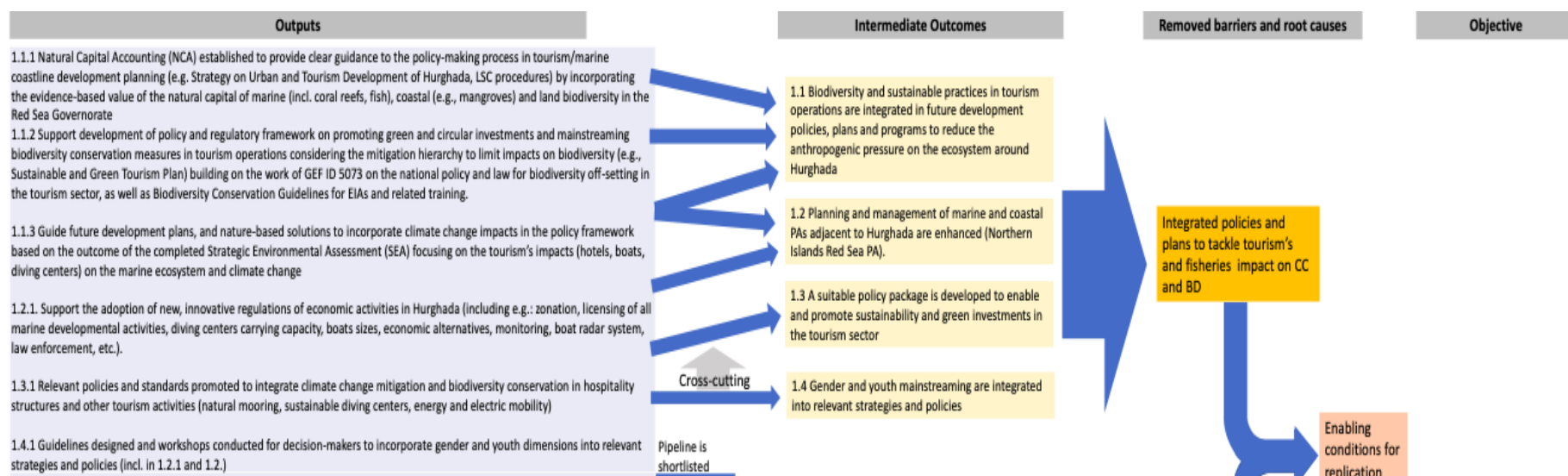
92. The objective of the project is to reduce environmental pressure from the tourism sector to preserve biodiversity in the coastal city of Hurgada through mainstreaming climate smart technologies and sustainability practices in tourism, energy and transport infrastructure. The project will thus contribute to the sustainability of tourism in Egypt through the mainstreaming of BD conservation into CCM investments and with emphasis on vulnerable coastal-marine areas through the consolidation of effective tourism development and PA management with strengthened capacities and financial mechanisms. The interventions will be upscaled to a broader level with integrated policy frameworks on sustainable tourism, energy and biodiversity preservation.

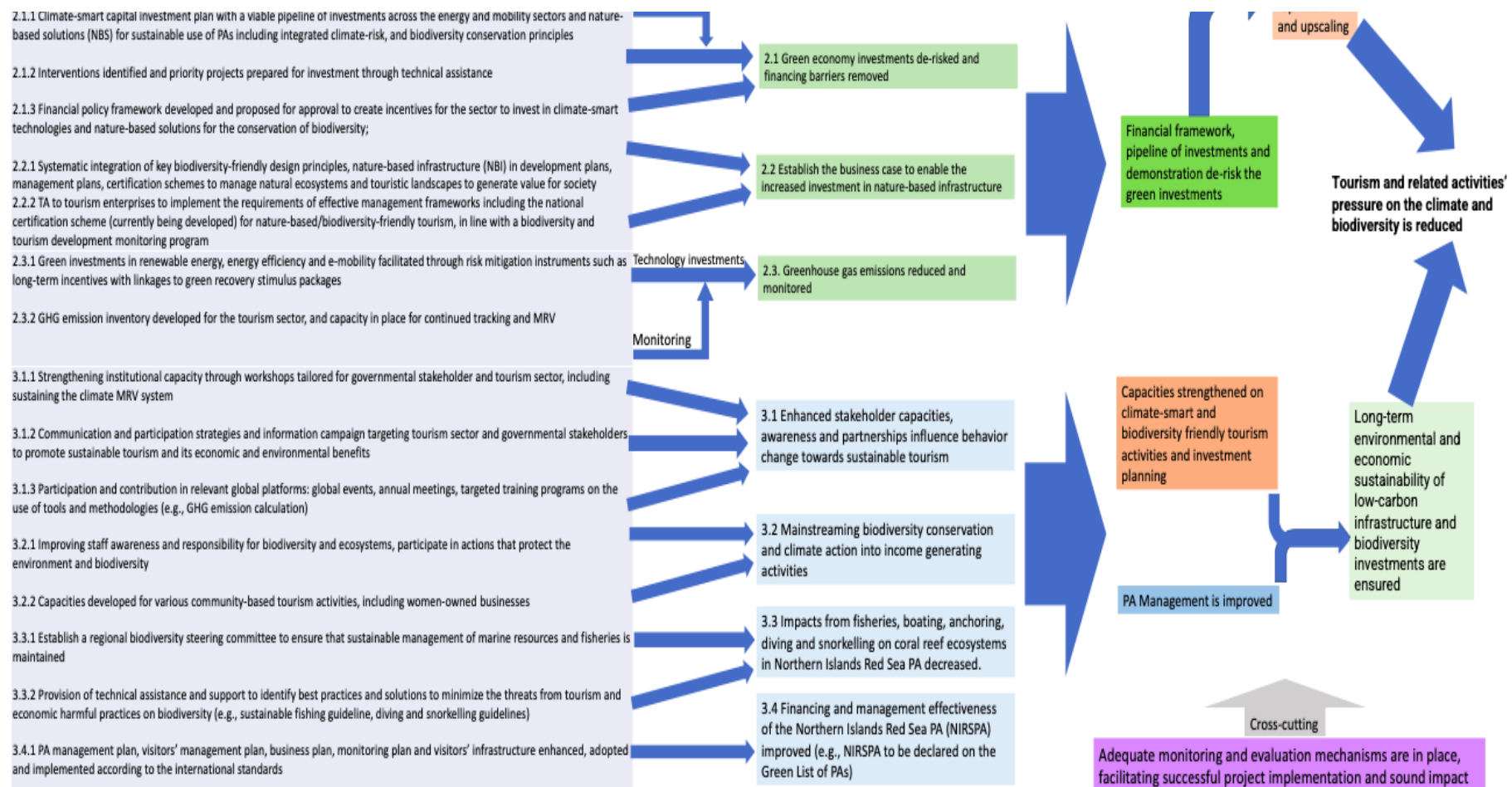




c) The proposed alternative scenario with a brief description of expected outcomes and components of the Program;

The Theory of Change (ToC) of the project as well as a short narrative is presented below and can be found in the Annex D.





The ToC is based on the problem tree that outlines the root causes and barriers of the existing environmental problems in Hurghada. The environmental degradation in Hurghada is mainly resulted from the unsustainable tourism activities. Thus, the core problem is identified as 'unsustainable tourism activities in the coastal area of Hurghada'. The reference to the coastal area highlights the impact on the marine ecosystem. The project outputs are structured to target one or more root causes of GHG emissions and BD degradation. The logical pathways between the outputs and outcomes are shown with arrows connecting the boxes.

IF the outputs are completed successfully THEN the project will reduce GHG emissions and biodiversity degradation BECAUSE mainstreaming climate smart technologies and sustainability practices in tourism, enabling conditions for green investments, improving the management of PAs, integrating sustainability into policies will shift the sector towards sustainable tourism.

93. The Project will:

Improve management of key touristic destinations/sites, e.g., diving centers (BD)

o Introduce a management plan for diving centers

- o Promote sustainable diving centers
- o Establish guidelines for carrying capacity of coral reefs
- o Introduce monitoring programs for coral reefs and marine mammals
- o Develop awareness and capacitation programs for tour/diving operators and tourists

#### Optimize the energy use in hotels (CCM)

- o Promote the increased production of energy from renewables (mainly solar PV and solar thermal) to cover for increased own demand
- o Implement energy (and resource) efficiency measures in hotel facilities

#### Reduce emissions the transportation infrastructure (CCM/BD)

- o Promote electrification of boats as one key technology to mitigate the impact on marine ecology – consider most suitable options for engine conversion – more efficient / electric engine / solar driven boats and consider possible limitations of the electric grid. The economic feasibility of e-boats will be validated during PPG.
- o Electrification of land transportation, touristic shuttles / buses
- o Promotion of e-bikes and e-tuktuks for local transportation means

#### Mainstream biodiversity conservation and climate action into income generating activities including for local communities (CCM/BD)

- o Capacity development for various community-based tourism activities: e.g., EcoTourism - setup and management of eco lodges, women-based businesses (handicraft, etc.)

#### Introduce a financial policy framework to support tourism facilities

- o To increase the uptake of private sector investments in clean technologies (incl. energy management and sustainable transport) and biodiversity conservation

94. The GEF increment will complement these programmes by establishing and systematizing monitoring for BD and CCM, harmonizing their objectives and facilitating their implementation. This will translate into effective tourism development and management of touristic sites, increased area under sustainable use and conservation of species. The effective operation of selected tourism sites is expected to result in their environmental sustainability in the long term, considering the mitigation hierarchy applied as an iterative process to reduce impacts through avoidance and minimization measures.

95. The project will be aligned with baseline initiatives and ongoing BD and CCM projects (e.g., UNDP-GEF ID 5073 and ID 10117) and will focus on integrating biodiversity conservation into climate resilient infrastructure investments.

96. Thus, the Project is going to tackle the main environmental challenges in Hurghada, with a sectoral focus on tourism sector in line with the national COVID-19 recovery plans provided to the sector.

**Component 1** – Strategic policy framework in place for a green recovery and sustainable growth of the tourism sector in Hurghada



**Expected Outcomes:**

- 1.1 Biodiversity and sustainable practices in tourism operations are integrated in future development policies, plans and programs to reduce the anthropogenic pressure on the ecosystem around Hurghada
- 1.2 Planning and management of marine and coastal PAs adjacent to Hurghada are enhanced (Northern Islands Red Sea PA).
- 1.3 A suitable policy package is developed to enable and promote sustainability and green investments in the tourism sector
- 1.4 Gender and youth mainstreaming are integrated into relevant strategies and policies

**Expected Outputs:**

- 1.1.1 Natural Capital Accounting (NCA) established to provide clear guidance to the policy-making process in tourism/marine coastline development planning (e.g. Strategy on Urban and Tourism Development of Hurghada, LSC procedures) by incorporating the evidence-based value of the natural capital of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea Governorate
- 1.1.2 Support development of policy and regulatory framework on promoting green and circular investments and mainstreaming biodiversity conservation measures in tourism operations considering the mitigation hierarchy to limit impacts on biodiversity (e.g., Sustainable and Green Tourism Plan), building on the work of GEF ID 5073 on the national policy and law for biodiversity off-setting in the tourism sector, as well as Biodiversity Conservation Guidelines for EIAs and related training
- 1.1.3 Guide future development plans, and nature-based solutions to incorporate climate change impacts in the policy framework based on the outcome of the completed Strategic Environmental Assessment (SEA) focusing on the tourism's impacts (hotels, boats, diving centers) on the marine ecosystem and climate change
- 1.2.1. Support the adoption of new, innovative regulations of economic activities in Hurghada (including e.g.: zoning, licensing of all marine developmental activities, diving centers carrying capacity, boats sizes, economic alternatives, monitoring, boats radar system, law enforcement, etc.).
- 1.3.1 Relevant policies and standards promoted to integrate climate change mitigation and biodiversity conservation in hospitality structures and other tourism activities (natural mooring, sustainable diving centers, energy and electric mobility)
- 1.4.1 Guidelines designed and workshops conducted for decision-makers to incorporate gender and youth dimensions into relevant strategies and policies (incl. in 1.2.1 and 1.2.)

97. A diagnostic assessment shall be integrated in the early stages to have an assessment of the baseline for the current situation of Hurghada city and adjacent coastal area; the focus will be to establish the baseline situation, identify priorities & areas of intervention and ensure stakeholders support & 'buy-in' of the proposed interventions.

98. A NCA will be established to guide the policy-making process to allow the improvement of conditions of marine and land biodiversity in the greater Hurghada area and along the touristic infrastructure development hot-spots over course of time. Budget and time-frame will not allow for a national-scale natural capital accounting exercise in line with either the SEEA General Framework or the Experimental Ecosystem Accounting frameworks, and to institutionalize NC Accounting in Egypt. The project will however attempt to conduct a NC accounting or assessment exercise focused on Hurghada and the project region to integrate the value of the natural capital basis for the urban strategies, tourism economy, i.e., with a clear policy focus to leverage some political decisions linked to future tourism investments, biodiversity protection, PA finance, tourism practices, and enforcement of related regulations.

99. In order to setup an enabling framework for sustaining green tourism in Hurghada, Component 1 will strengthen the legal, policy, regulatory and institutional frameworks at national and sub-national levels used to plan, improve and monitor tourism and related municipal infrastructure developments in the municipality. The component will build on the work of GEF ID 5073 on the national policy and law for biodiversity off-setting in the tourism sector, as well as Biodiversity Conservation Guidelines for EIAs and related training.

100. The GEF increment will cover a multi-year implementation plan (action plan) up to the year 2030 (or beyond). The action plan will present goals for the focus areas selected in the strategy. The action plan will include both, long-term strategic infrastructure investments (implementation scope beyond the project duration, i.e., > 5 years), as well as short-term measures implemented with TA and financial support under the GEF Project. The action plan will ideally form the prioritization framework and include a scoring system for infrastructure investment projects (incl. multi-criteria analysis), including assessment of environmental and climate impacts. The plan will be evaluated annually, and additions will be made as necessary. Involvement of stakeholders and resources to be dedicated to this process will be further assessed within the PPG.

101. Planning for sustainable tourism needs to recognize and protect the characteristics of the Hurghada destination that attract visitors in the first place which is most often a natural beach, island or landscape. For this, the project will work towards the integration of climate-resilient investment into municipal planning and develop the relevant metrics, as well as natural capital values and biodiversity conservation considerations, to be incorporated into all relevant city/governorate-level strategies, planning documents and regulations.

102. This component is targeted at the institutional capacities for planning, implementation, monitoring and enforcement so that they are strengthened in the Red Sea Governorate, especially within the City of Hurghada and adjacent coastal area and islands with their associated protected areas, in order to improve management of the impacts of tourism development as well as biodiversity within ecologically valuable and sensitive areas.

103. The Project will support drafting the guidelines for a Strategic Environmental Assessment (SEA) specifically to identify the potential impacts of tourism on biodiversity and climate change in Hurghada and the Southern Red Sea coast that are classified as areas of special environmental importance with pristine natural resources, under threat of tourism development. These will identify the critical areas for biodiversity, the points of conflict with development and as much as possible the interconnectedness within these systems so that developments take notice of externalities and impacts. A key aim of these SEAs will be to identify areas which may be damaged beyond recovery, areas where tourism can be developed under strict controls and areas where tourism must have a minimal impact upon the environment. The purpose of these SEAs is to inform planning and provide the framework for avoidance, mitigation and any future offsetting mechanism.

104. Gender mainstreaming will be a priority in the development of the policy advocacy support and will be approached at different levels: i) political level dialogue with the authorities of the key concerned institutions (ministries, governorate/municipality, civil society organizations and private sector) to raise awareness on the importance of gender equality and the empowerment of women in development processes; ii) capacity building and training on bias as well as on operational gender mainstreaming; and iii) pro-active involvement of women's groups, NGOs/CSOs promoting GEEW as well gender focal points of stakeholders.

**Component 2-** Green technology investments mitigate GHG emissions and reduce degradation on coastal and marine ecosystems, and improve economic competitiveness of tourism sector

**Expected Outcomes:**

- 2.1 Green economy investments de-risked and financing barriers removed (TA)
- 2.2. Establish the business case to enable the increased investment in nature-based infrastructure (TA)
- 2.3. Greenhouse gas emissions reduced and monitored (INV)

**Expected Outputs:**

- 2.1.1 Climate-smart capital investment plan with a viable pipeline of investments across the energy and mobility sectors and nature-based solutions (NBS) for sustainable use of PAs including integrated climate-risk, and biodiversity conservation principles
- 2.1.2 Interventions identified and priority projects prepared for investment through technical assistance
- 2.1.3 Financial policy framework developed and proposed for approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity
- 2.2.1 Systematic integration of key biodiversity-friendly design principles, nature-based infrastructure (NBI) in development plans, management plans, certification schemes to manage natural ecosystems and tourist landscapes to generate value for society
- 2.2.2 TA to tourism enterprises to implement the requirements of effective management frameworks including the national certification scheme (currently being developed) for nature-based/biodiversity-friendly tourism, in line with a biodiversity and tourism development monitoring program
- 2.3.1 Green investments in renewable energy, energy efficiency and e-mobility facilitated through risk mitigation instruments such as long-term incentives with linkages to green recovery stimulus packages
- 2.3.2 GHG emissions inventory developed for the tourism and capacity in place for continued tracking and MRV

105. The Governorate of the Red Sea will be engaged to support the projects to address the current environmental and urban development challenges in order to promote a sustainable tourism that significantly reduces its impact on the local environment and global climate.

106. Tourism, as one of the most promising drivers of growth for the world economy, can play an important role in driving the transition to a green economy, and contribute to more sustainable and inclusive growth. With close connections to different sectors at destination and international levels, even small improvements toward greater sustainability in tourism will have important impacts.

107. The project will seek to enhance adaptation to climate change by establishing a business case that will enable the increased investment in nature-based infrastructure (NBI) and provide cost-effective solutions for Hurghada as the pressure on the land and marine ecosystem increase.

108. The output of NCAA exercise will aim to mainstream biodiversity in the Strategy on Urban and Tourism Development of Hurghada and target the decision makers from the Red Sea Governorate and Ministry of Environment (specifically EEAA) and Ministry of Tourism (specifically the Tourism Development Authority - TDA). These entities are members of the Licensing Supreme Committee (LSC), which is responsible for approving the licenses for coastal development projects based on their impact on the shoreline, and the marine environment. As such, these decision makers will be primarily targeted and supported. Other stakeholders involved in marine coastline planning are the following:

- Egyptian General Authority For Shores Protection under Ministry of Irrigation and Water Resources according to the Prime Ministerial Decree No. 1599/2006 on the protection of Egyptian Seashores
- General Organization for Physical Planning (GOPP) under Ministry of Housing, Utilities, and Urban Development

These stakeholders will be involved from the onset on the scoping of the NCA exercise.

109. Investment and financing are essential parts of this development. The possibilities are wide-ranging and include public and private investment in low carbon transport options and the construction of resource efficient tourism infrastructure, as well as initiatives to support innovation, promote the adoption of responsible business practices and encourage the integration of tourism businesses into low carbon and sustainable tourism supply chains.

110. The project will support increasing the investment in innovative low carbon and resource efficiency technologies in hotel facilities and other touristic infrastructures that will also benefit the NBI. Based on a competitive selection process to be developed during the PPG and discussed with relevant stakeholders (e.g., ETF, directorate, financing sector), the project will invite hotels and resorts to submit their investment proposals, covering a range of projects improving the use of energy and resources, electric mobility and associated charging infrastructure and provide them with TA and co-financing for implementation.

111. The amount of GEF contribution to be provided will be based on a set of criteria, examples include: maturity of technologies to be installed, amount of energy saved or renewable energy produced, environmental benefits (achievable GHG ER), cost-effectiveness and comparison of economic costs and benefits of NBI with grey infrastructure solutions, as well as willingness to disseminate and promote good practice.

112. Hotels and other tourism enterprises will be enhanced to apply good environmental practice and demonstrate commitment to long-term continuous improvements, e.g., by certifying their facilities according to the available Green Star hotel rating program promoted by MoT/GTU and EHA, by introducing other management systems (e.g. environmental management according to ISO 14001 or energy management according ISO 50001).

113. The project will setup a coordination group between governmental stakeholders, financing sector (e.g. CBE, EBRD, commercial banks) and the Egyptian Tourism Federation to develop a long-term financing framework for hotels and touristic infrastructure operators to support with appropriate financing schemes and provide the necessary capital investment to offset the impact of COVID-19 and recovery of the tourism sector by installing new energy- and resource related infrastructure in hotels (e.g., energy efficiency, renewables, environmental management, and biodiversity related aspects in hotel management – e.g. in line with the Green Star certification guidelines) against specific criteria. Using respective co-financing from government and/or commercial financing sources, appropriate financing conditions at lower interest rates (compared to commercial interest rate) will be proposed for the benefit of developers of investment projects, including the setup of a fund with financing sources being made available beyond this project.

114. The Project envisages to support through TA climate-friendly investment opportunities in tourism in the following areas:

i) Energy efficiency and renewable energy:

- Increasing the investment in innovative low carbon and resource efficiency technologies in hotels and tourism facilities will be supported, by promoting the mobilization of innovative, commercially driven investments of more energy and resource efficient technologies, leading to GHG emission reductions and increased use of resources among the hotel and tourism industry.
- Generally, in the accommodation sector there are many opportunities for investments in green performance, including improvements of HVAC systems (heating/hot water, ventilation, air-conditioning/cooling), lighting systems and laundry.
- Energy efficiency and renewable energy use hold the key to sustainable tourism in Egypt. As the hospitality sector in Egypt requires a set of energy efficiency strategies in addition to the diversification of energy supply with renewables. The cooling and hot water facilities in the hotels are often obsolete and inefficient. There are few hotels using more efficient centralized cooling systems. Excess use of electricity increases the pressure on the electricity

infrastructure and even causes black-outs and brown-outs. The tourism sector has high green investment potential with significant CO<sub>2</sub> savings and the paybacks are interesting with the actual energy prices for large consumers. However, the penetration of energy efficiency and sustainable technologies is still low.

- The Project will trigger investments in complex energy refurbishments (e.g., HVAC systems) and installation of larger rooftop PV systems to cover the own power demand of hotel facilities. As electricity subsidies are gradually been removed and tariffs go up, the industrial and commercial sectors can couple small-scale PV systems to meet heightened energy demand, reduce fossil fuel consumption and decrease utility bills.
- The Project will provide technical assistance in system design and the necessary technical specifications of equipment and technical guidelines (or grid code), evaluation and specification of contractual requirements, such as IPP contracts as needed for installation and grid-connection of PV and other renewable energy systems in hotels.

## ii) E-mobility

- The average distance travelled by tourists in Hurghada is ~38 km per day which is suitable for electric vehicles and other eco-friendly means of transportation. Figures from 2015 estimated the number of vehicles operating for tourism transportation as 1,785 large buses, ~270 micro buses and 50 cars run on diesel, and about 700 cars running on gasoline. In addition, there are about 4,000 taxis. Public transportation is not commonly used by residents and tourists in the city, neither does the Governorate operate public transportation and depends mainly on the private network. Therefore, the use of small vehicles and eco-friendly means of transportation including electric vehicles (EV), e.g., electric buses, electric mini-vans, tuk-tuks and other means of public and individual transportation will be promoted. In addition, electric mobility requires a switch to renewable electricity to supply the charging points.
- The project will setup an EV promotion program for public and touristic infrastructure and will aim to provide a considerable share of EVs by the end of the project. The program will suggest different business cases for public transportation and transport of tourists within the town, between key destinations (e.g. from airport to hotels/resorts, between hotels and touristic spots/marinas/sightseeing tours) and support their implementation within the project, together with the introduction of a scalable EV charging network based on 100% renewable energies across the city. Experiences from El Gouna, where electric mobility already exists, will be considered and expanded to the whole project area. The plans for expansion of electric vehicles will be aligned with the city administration as well as the tourism federation to confirm the total investment and additional co-financing means from public and private sources. Details will be assessed in agreement with the key stakeholders during the PPG.

## iii) Promoting electric boats

- A total of ~450 boats (diving and safari boats) depart either from the 3 main marinas or 67 jetties spread along Hurghada city coast, with the boats basically running on fossil fuels. Boats often cause oil leakages, and their exhaust gas emissions are impactful on the fragile marine ecosystem. Alternative solutions to fossil fuel driven engines include electric and solar-electric propulsion as well as hybridization (combined diesel and electric engines). In addition to a significantly quiet system, the electric motors do not produce any exhaust emissions. They are therefore considered climate and ecosystem friendly. Unlike the combustion cylinder counterparts in fossil fuel-based boats, electric boat motors do not need regular oiling for their components. This reduces the risk of oil leakage to the sea. There are types with solar roof that would allow onboard energy production.
- The project will assess the energetic and economic feasibility of electric motor and battery applications in boats during the PPG. The feasibility study will assess the most suitable technical requirements and the benefits and challenges of the technical considerations for slow speed vessels (e.g., tourists boats for "slow" nature tours, ferries), other smaller vessels (e.g., for fishing in local/inshore waters) as well as dive boats (larger vessels up to 40 m, operating at reasonable distances 10-90 km from their service ports) running on electricity or hybrid mode.
- Further assumptions on the business case, including the integration of renewable energies in seaports, marinas and diving centers along the project area, and the installation of a charging infrastructure for electric boats and road vehicles based on 100% renewable electricity, and the resulting environmental benefits in terms of GHG emission reductions will be also assessed and detailed during the PPG stage. Designing a

competitive financing mechanism for marine electrification will encourage investors to replace old fossil fuel motor boats or at least consider the electric motor when they buy a new one. In the long term, such innovations would allow diving/daily boat industry to mitigate – in combination with measures to reduce marine littering – the environmental impact to the sensitive marine ecosystem.

- The results of the assessment during PPG on the technical feasibility, innovation potential, cost-effectiveness and GHG emission reduction potential will ultimately guide the choice of technology interventions for the project implementation phase.

iv) Systematic integration of key biodiversity-friendly design principles and their effective management including cooperation with and support programs for hotels and dive centers

- Hoteliers will be enhanced to apply good environmental practice and demonstrate commitment to long-term continuous improvements, e.g., by certifying their facilities according to the available Green Star hotel rating program promoted by MoT/GTU and EHA or by introducing other management systems (e.g., environmental management according to ISO 14001 or energy management according to ISO 50001).

- The project will support tourism enterprises to achieve environmental certification schemes (e.g. Responsible Tourism Grading Scheme for nature-based/biodiversity-friendly tourism, Green Star, Green Key, Green fins, etc.), as well as a national biodiversity and tourism development monitoring program in coordination with the other GEF-financed projects (especially UNDP-GEF ID 5073) and initiatives in Egypt. Main stakeholders to be engaged in the partnership and the form of partnership between the Egyptian Tourism Federation's Committee on Environmental Protection and Sustainable Development, the Hurghada Authorities and the Chamber of Diving and Water Sports will be identified during the PPG.

- The project will engage with global initiatives such as the IUCN's principles and guidance on how biodiversity considerations should be integrated into hotel and resort siting and design decisions as well as into management activities during the lifetime of the property:

Principle 1: Adopt an ecosystem-based approach in tourism development planning

*Hotel and resort planners and governmental agencies consider the dynamics of ecosystems, their services and interconnectivity when developing new hotels and resorts and take into account the impacts that the development(s) could have on all components of the ecosystems concerned.*

Principle 2: Manage impacts on biodiversity from hotel development and attempt to achieve an overall positive contribution

*Hotel and resort developers make all efforts to avoid negative impacts on biodiversity and associated livelihoods from siting, design and construction.*

Principle 3: Design with nature and adopt nature-based solutions

*Where possible, hotels and resorts blend into their natural landscape, enhance it, and use nature as a source of inspiration in design and in operations.*

Principle 4: Respect, involve and support local communities

*Hotel and resort developments contribute positively to local community development, respect land rights and land-use rights of local stakeholders and involve them in decision making*

Principle 5: Build collaboration among stakeholders

*Tourism development practitioners and national government authorities develop mechanisms – ad hoc and long-term – to support collaborative efforts that mobilize and foster the knowledge and capacities of all stakeholders.*

- They are targeted at all relevant stakeholders, including planning authorities, tourism development agencies, developers, investors, hotel managers and management companies, project managers and consultants, architects and construction firms. It is also expected that these Principles could be integrated into relevant policy and planning processes in Hurghada, including Environmental Impact Assessment (EIA) procedures, National Biodiversity Strategies and Action Plans (NBSAP), national and local management plans, tourism development plans, and the environmental management strategies of hotel corporations and developers.

- Furthermore, biodiversity-friendly practices and nature-based infrastructure will be implemented in pilot hotels to promote a more holistic and integrated approach to improving their overall environmental management. This would require hotels and resorts to grasp emerging opportunities based on owner, management/operators commitments to develop biodiversity and ecosystem services (BES), securing cost effective options,

develop new and biodiversity-friendly products and services and help them integrate BES in their business strategy and actions. For example using energy and water more efficiently; using organic and sustainably produced food; reducing/avoiding single-use-of-plastic - especially on beaches and tours; making sustainable purchasing decisions and managing gardens and resorts with natural-style plantings can all help a hotel to reduce its adverse impacts on biodiversity.

**Component 3** – Long-term environmental and economic sustainability of low-carbon infrastructure and biodiversity investments are ensured

**Expected Outcomes:**

- 3.1 Enhanced stakeholder capacities, awareness and partnerships influence behavior change towards sustainable tourism
- 3.2 Mainstreaming biodiversity conservation and climate action into income generating activities
- 3.3 Impacts from fisheries, boating, anchoring, diving and snorkeling on coral reef ecosystems in Northern Islands Red Sea PA decreased.
- 3.4 Financing and management effectiveness of the Northern Islands Red Sea PA (NIRSPA) improved (e.g., NIRSPA to be declared on the Green List of PAs)

**Expected Outputs:**

- 3.1.1 Strengthening institutional capacity through workshops tailored for governmental stakeholder and tourism sector, including sustaining the climate MRV system
- 3.1.2 Communication and participation strategies and information campaign targeting tourism sector and governmental stakeholders to promote sustainable tourism and its economic and environmental benefits
- 3.1.3 Participation and contribution in relevant global platforms: global events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation)
- 3.2.1 Improving staff awareness and responsibility for biodiversity and ecosystems, participate in actions that protect the environment and biodiversity
- 3.2.2 Capacities developed for various community-based tourism activities, including women-owned businesses
- 3.3.1 Establish a regional biodiversity steering committee to ensure that sustainable management of marine resources and fisheries is maintained.
- 3.3.2 Provision of technical assistance and support to identify best practices and solutions to minimize the threats from tourism and economic harmful practices on biodiversity (e.g., sustainable fishing guideline, diving and snorkeling guidelines)
- 3.4.1 PA management plan, visitors' management plan, business plan, monitoring plan and visitors' infrastructure enhanced, adopted and implemented according to the international standards.



115. Currently, there is a technological gap in the local communities' level on the possible innovations and interventions that can help the environment and reduce GHG emissions from their daily practice, such as sewage tugs, energy efficient boats, e-mobility and others that the project will intervene in Hurghada.

116. Therefore, raising an awareness campaign will be a core activity for this project since the main beneficiary and user of such innovations would be the local citizens, this shall take place by various approaches as the change process would be challenging and requires presentation of strong argument that shall relate the impact of the current practices starting from the microlevel up to the macro level; per say on their economic situation, short/long term effect on natural resources as the main source of income reach to the global environmental situation. Upon reaching project targets, Ministries can disseminate and replicate experiences and especially sustainable business models from the pilot demonstration and the selected route to the other routes of public transportation to ensure wider replicability as well as sustainability.

117. The knowledge, experiences, and lessons learned from Component 1 and 2 will be integrated as content of Component 3 and will be shared across national, regional, and global networks. The project will share the knowledge and dissemination materials such as analytical reports, policies, business models and lessons learned with the global programmes in order to support scale-up and replication of e-mobility in other countries and regions. Them examples of these global platforms are; Global Energy Efficiency Accelerator Platform, Industrial Energy Accelerator, Global Programme to Support Countries with the Shift to Electric Mobility (GEF ID 10114), and Tourism for SDGs. The Global Sustainable Tourism Council's [xxxiii] criteria for the tourism industry as well as provided destination criteria for sustainable management of tourism destinations will be considered for application, in cooperation with the ETF and EHA. The GSTC Criteria serve as the global baseline standards for sustainability in travel and tourism. The Criteria are used for education and awareness-raising, policy-making for businesses and government agencies and other organization types, measurement and evaluation, and as a basis for certification.

118. Workshops to be developed shall be gender-responsive. This will encompass to include national and international NGOs and business associations such as the National Women Council of Egypt to enable reaching gender targets of the project.

119. Community-based ecotourism (CBET) has become a popular tool for biodiversity conservation, based on the principle that biodiversity must pay for itself by generating economic benefits, particularly for local people. Together with HEPCA and other NGOs, CBET initiatives will be launched. HEPCA is experienced in spearheading community-based initiatives aimed at engaging and empowering the Red Sea's local community. Alternatives will be sought on how to help local communities to engage in non-consumption-based economies (e.g., local tourism) instead of consumption-economy (e.g., fishing) only

#### **Component 4 – Monitoring and Evaluation**

##### **Expected Outcome:**

4.1 Adequate monitoring and evaluation mechanisms are in place, facilitating successful project implementation and sound impact

##### **Expected Outputs:**

4.1.1 Periodic monitoring of project implementation as per GEF and UNIDO guidelines

4.1.2 Monitoring and evaluation of gender impact and gender mainstreaming strategy

4.1.3 External Mid-Term Review and independent Terminal Evaluation conducted

120. UNIDO will regularly monitor progress on each component to ensure the project is completed on time and to budget, as well as to be responsive and proactive about any potential adjustment or opportunities that arise that can further leverage the GEF grant for achieving additional GEBs. As per GEF and UNIDO guidelines, a mid-term review (MTR) and an independent terminal evaluation will be conducted at the conclusion of the project to glean best practices and lessons learned for future projects.

121. All monitoring and evaluation tools and documents, such as the monitoring plan, progress reports, final evaluation report, and thematic evaluations (e.g., capacity needs assessment), will include gender dimensions, and report with respect to an established baseline for gender related targets.

#### **d) Alignment with GEF Focal Area and/or Impact Program Strategies**

122. The GEF funding of this project will mitigate tourism sector's GHG emissions aligned with priorities of CCM focal area and reduce the degradation on marine ecosystem under the BD focal area.

123. On Climate Change, the here-proposed project is fully aligned with three out of the four entry points outlined in the GEF VII CCM Focal Area 1 Promote innovation and technology transfer for sustainable energy breakthroughs, namely De-centralized renewable energy power with energy storage (CCM- 1-1), Electric drive technologies and electric mobility (CCM-1-2) and Accelerating energy efficiency adoption (CCM-1-3). The project supports decarbonization of Egypt's energy and transport sectors by promoting the adoption of low-carbon energy installations in hotels and touristic infrastructures, including energy efficiency measures. In addition, electric mobility and development of innovative electric mobility solutions in public and marine transportation will contribute to direct reductions in GHG emissions and indirect reductions via scale-up within the market and country.

124. On Biodiversity, the project is furthermore and primarily aligned with Objective 2 – Address direct drivers to protect habitats and species, Focal Area Strategy 2-7 Improving Financial Sustainability, Effective Management, and Ecosystem Coverage of the Global Protected Area Estate. In doing so it addresses priorities and outcomes identified by CBD COP-13: E) Reduce pressures on coral reefs and other vulnerable coastal and marine ecosystems. In addition, the project is aligned with Objective 1 – Mainstream biodiversity across sectors as well as landscapes and seascapes, Focal Area Strategy 1-1 Biodiversity Mainstreaming in Priority Sectors, most notably the tourism sector in the effort to convert Hurghada into a more sustainable tourism destination and city.

#### Synergy between Biodiversity and Energy.

125. The project is designed to focus on the tourism sector to tackle the common source of both GHG emissions -due to low efficiency and fossil fuel dependency- and the biodiversity degradation -due to unsustainable practices-.

126. The project will incorporate biodiversity conservation principles into climate-smart capital investment plan and pipeline as well into policies and development plan.

127. The energy sector encompasses a range of activities and economic sectors involved in the exploration, extraction, processing, generation, distribution and delivery of energy. These activities show strong links to biodiversity and ecosystem services, in terms of both impacts and dependencies.

128. There is growing recognition from a wide set of stakeholders, including government, industry and finance institutions, that biodiversity needs to be integrated into government, financial and corporate policies. Fossil energy-related activities causing most of the global GHG emissions through their extraction, processing and subsequent combustion. Climate change is recognized as a serious threat to biodiversity and ecosystem services at the global scale. The transition away from fossil fuel-based energy sources is key to mitigating this threat [xxxiv].

129. The project's interventions will demonstrate and promote the biodiversity preservation benefits of sustainable energy technologies. For instance, reducing the impact of fossil energy sector on marine ecosystems by increasing the share of locally generated clean energy and energy efficiency and electric mobility to avoid fuel leakages and reduce the anthropogenic noise pollution.

130. The improvement of environmental sustainability is an important opportunity to promote the synergy between climate and biodiversity friendly practices in tourism that depends on ecosystem integrity and associated biodiversity asset as their main attraction.

131. The project has the potential of creating more GEBs due to its sectoral focus on tourism that is the main common source of both GHG emissions and biodiversity degradation in Hurghada. The project will reduce the impacts of tourism activities and push the sector towards holistic eco-tourism that covers climate action, biodiversity preservation as well as economic sustainability

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

132. Unsustainable tourism practices in Hurghada are the main reason behind the degradation of its own natural assets; biodiversity and coral reefs that attract tourists and generate income. The barriers on tackling this root cause are lack of enabling conditions such as integrated policies and their effective implementation, financial incentives, and lack of capacity and awareness. Should no intervention of GEF project take place, the pressure on the environment and the ecosystem will increase, and the Red Sea will lose its attractiveness as an international tourist destination.

133. The project will build on documented outcomes and results and setup a coordination mechanism with various ongoing initiatives in Egypt (e.g. UNDP-GEF ID 5073 Mainstreaming biodiversity into tourism development in selected regions in Egypt, UNDP-GEF ID 10117 Green Sharm) to conserve globally significant biodiversity by mainstreaming biodiversity into the overall tourism planning and regulatory frameworks especially at the regional (directorate) and municipal levels. Hurghada and its coastal line within the Northern Red Sea islands PA, extending beyond the PA to the South until the city of Safaga are going to benefit from the project impact generated. The project will influence the placement of infrastructure and internalise climate-resilient development and biodiversity conservation into tourism sector planning and tourism operations, thereby seeking to reduce greenhouse gas emissions and resource use, and safeguard valuable biodiversity in which tourism is expected to increase substantially over the coming years.

134. The project will implement sustainable technology applications and strategic policy framework to de-risk green investments in the tourism sector, enhance capacities through trainings and raise awareness to safeguard biodiversity and reduce emissions. The financial assistance from the GEF will trigger the shift towards sustainable tourism in Hurghada.

135. The project will generate multiple global environmental benefits building on a substantial baseline but also a strong increment due to considerable investment and co-financing expected from public and private sources. Details on incremental cost reasoning and GEB are included in Annex H.

136. The project is expected to result in GHG emission reduction of total 1,014,900 tCO<sub>2eq</sub>, of which 338,300 tCO<sub>2eq</sub> is direct emission mitigation. These figures correspond to 3.83 US\$ (GEF CCM TF) per ton of total CO<sub>2eq</sub> mitigated and 11.5 US\$ (GEF CCM TF) per ton of direct emission reduced.

137. The project's technical assistance will link the pipeline of climate smart investments with available financial instruments including the government's stimulus package for the tourism sector, complementing financial initiatives from finance institutions, as well as the local private sector itself wherever feasible.

138. The tourism enterprises such as hotels and diving centers are expected to co-finance the investments through equity and borrowing. One of the opportunities is to make use of the national COVID-19 recovery packages provided to tourism sector through low-interest bank loans such as the stimulus package available for tourism by CBE.

139. During the PPG phase, further information will be verified on co-financing, including source, amount and type.

**f) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);**

140. The detailed calculations of the expected GEBs are given in the Annex H.

141. The breakdown of total (direct + indirect) GHG emission mitigation of 1,014,900 tCO<sub>2eq</sub> is summarized here briefly. The indirect post-project mitigation of this total corresponds to 676,600 tCO<sub>2eq</sub> assumed to be realized through replication in similar tourism enterprises in Hurghada or other cities. The remaining is the direct GHG emission mitigation of 338,300 tCO<sub>2eq</sub>. This amount is further break down below:

- 14,800 tCO<sub>2eq</sub>/year through sustainable energy use (RE and EE technology investments) in the tourism enterprises.
- 2,500 tCO<sub>2eq</sub>/year through increasing use of road electric mobility
- Through conversion of touristic boats to solar-powered electric motors there is no emission reduction expected under the assumption that at least in the beginning 50% of the electricity will be effectively charged from the electric grid (because grid emission factor is double the factor for diesel/gasoline). However, the underlying assumption is that all EVs (land and marine transport) will benefit from electricity charged from 100% of new renewable capacities installed locally.

These three interventions will result in direct GHG emission reductions (without replication) in total of 17,300 tCO<sub>2eq</sub>/year for 2 years of project duration since it is estimated that reductions will start occurring only after the 3rd year onwards, which results in 34,600 tCO<sub>2eq</sub>.

142. Taking into consideration the lifetime of investments, the expected direct post-project emissions is calculated as 321,000 tCO<sub>2eq</sub>. Therefore, the total direct GHG emission mitigation is 17,300 tCO<sub>2eq</sub> + 321,000 tCO<sub>2eq</sub> = 338,300 tCO<sub>2eq</sub>. The assumptions for the GEB calculations will be validated during the PPG stage.

143. The calculation of energy indicators (Core indicators 6.3 and 6.4) is also given in the Annex H.

144. The estimation of number of beneficiaries calculated as total of 25,500 beneficiaries of 10,750 being female.

145. The GEBs on improved management of PAs and non-PAs are calculated with the associated GEF tool and available satellite information by comparing to the business-as-usual scenario.

136. All the figures will be further verified and confirmed during the preparation phase of the project.

#### **g) Innovation, sustainability and potential for scaling up.**

##### Innovation

147. The project "Greening Hurghada" is bringing an innovative angle by mainstreaming green investments by using efficient technical solutions that were developed and streamered throughout different projects and proved successful with their best practices available for knowledge sharing such as renewable energy and energy efficiency usage, electric boats, smart mobility and other relevant interventions.

148. The project has an innovative approach focusing on the synergies between biodiversity and climate change mitigation sustainability to tackle the environmental problems holistically and promote the shift toward sustainable tourism. Electric mobility (road and maritime) will be introduced for a wider use, whereas energy efficiency and renewable energy solutions for a significant increase of decentralized, clean energy solutions within hotel and touristic infrastructure will be demonstrated and scaled-up with suitable financing mechanisms and capacity programs to be put in place (see below).

##### Sustainability and scale up

149. The project will remove root causes and barriers hindering the shift to sustainable tourism such as lack of integrated policies and sectoral approach (See Output 1.1.2), the absence of replicable sustainable energy investment examples (See Output 2.3.1.) and low capacity and awareness. The projects sectoral approach will ensure the sustainability of the project after its life-time in particular through financial framework (Output 2.1.3),

policies and standards and enhancing capacity and awareness of key stakeholders. As a result, enabling conditions and available financing models will promote and increase confidence of the key stakeholders to continue to design and invest in similar project in touristic coastal cities in Egypt and in the region.

150. The tourism sector is a large consumer of electricity and fuel. However, the limited amount of funds channeled through public sources will require a significant share of private co-financing investment to be committed to mitigate the climate and biodiversity related impacts in the Hurghada area. The project will demonstrate the interesting payback periods of RE and EE investments and share the knowledge with private sector and similar initiatives. This will increase competition in the sector thus lead to replication over the lifetime of the project. It is assumed, that based on the best practice developed within this GEF project and shared simultaneously through similar other activities – e.g., Green Sharm El-Sheikh, other national or global initiatives to promote a sustainable tourism sector development – the private sector will engage thoroughly in the post-project period, with variety of funds and financing mechanism becoming available from different sources and a clear sector guidelines developed for the hotel and tourism industry in Hurghada, Egypt and beyond. As for the assumptions on GEB to be achieved, a replication factor of 2 for the calculated bottom-up emission reductions seems viable.

151. The project will identify important best practices and lessons learned and which can be of value to all key stakeholders, specifically national decision makers in the EEAA, MOT, TDA, ETF, and the Red Sea Governorate, important development actors in the country. These best practices, lessons learned and guidelines will be documented for facilitating their wider replication and “up-scaling” (see Output 3.1.1 and 3.1.2). The collected data and lessons-learned will be publicly shared with relevant knowledge sharing platforms as well as on the project website and social media to increase the reach-out. Subsequently, the project will make systematic efforts for their dissemination including publishing in written and digital format, dissemination workshops and cross-fertilization.

152. The project will link the tourism enterprises with the grading and certifications on sustainable tourism such; GSH, Green Fins, Green Key, Green Globe, Responsible Tourism Grading and support the application process where required.

153. A Monitoring and Evaluation Plan will be prepared during the PPG and integrated into project to ensure the sustainability within the project management plan to support the scale up and replication of sustainable technologies within the tourism sector in Egypt. Hurghada is one of the top destinations in Middle East, hence it will have a staggering impact as a leading city for the rest of the country and region to replicate and follow to reach out project main outputs of climate change mitigation, reducing environmental degradation and enhance biodiversity preservation.

154. The following diagram shows the project approach, baseline, scale up and targets.

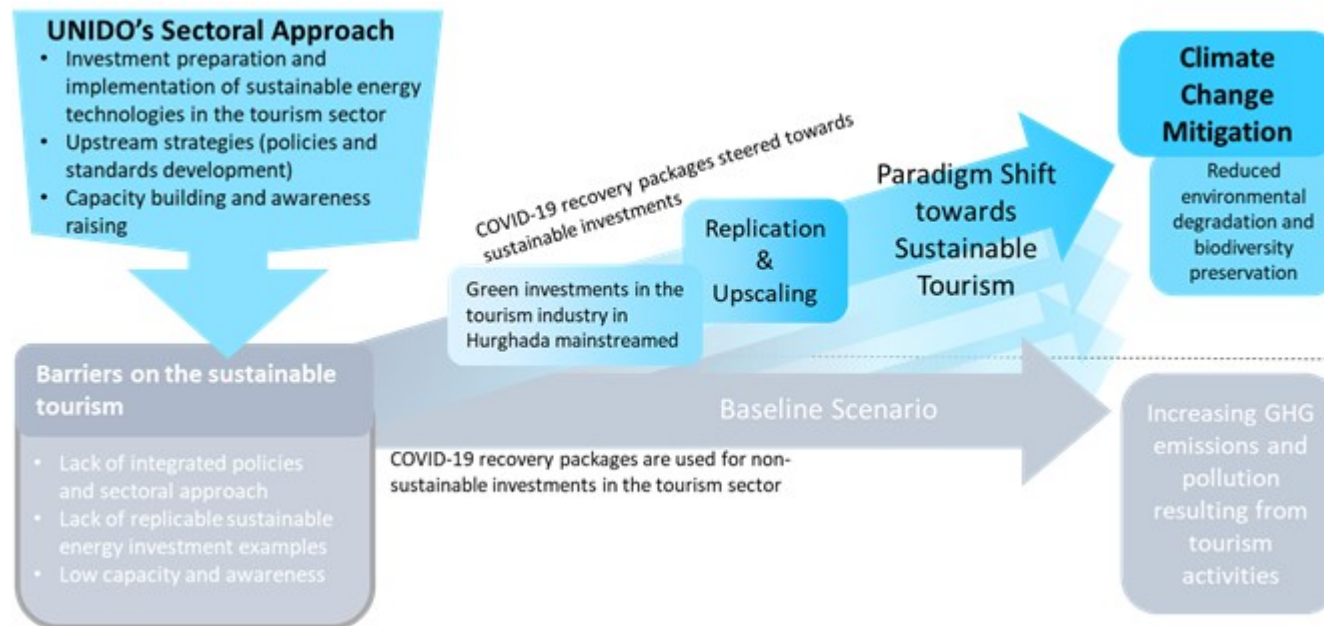


Figure 6: Project's Sectoral Approach to shift the Baseline Scenario

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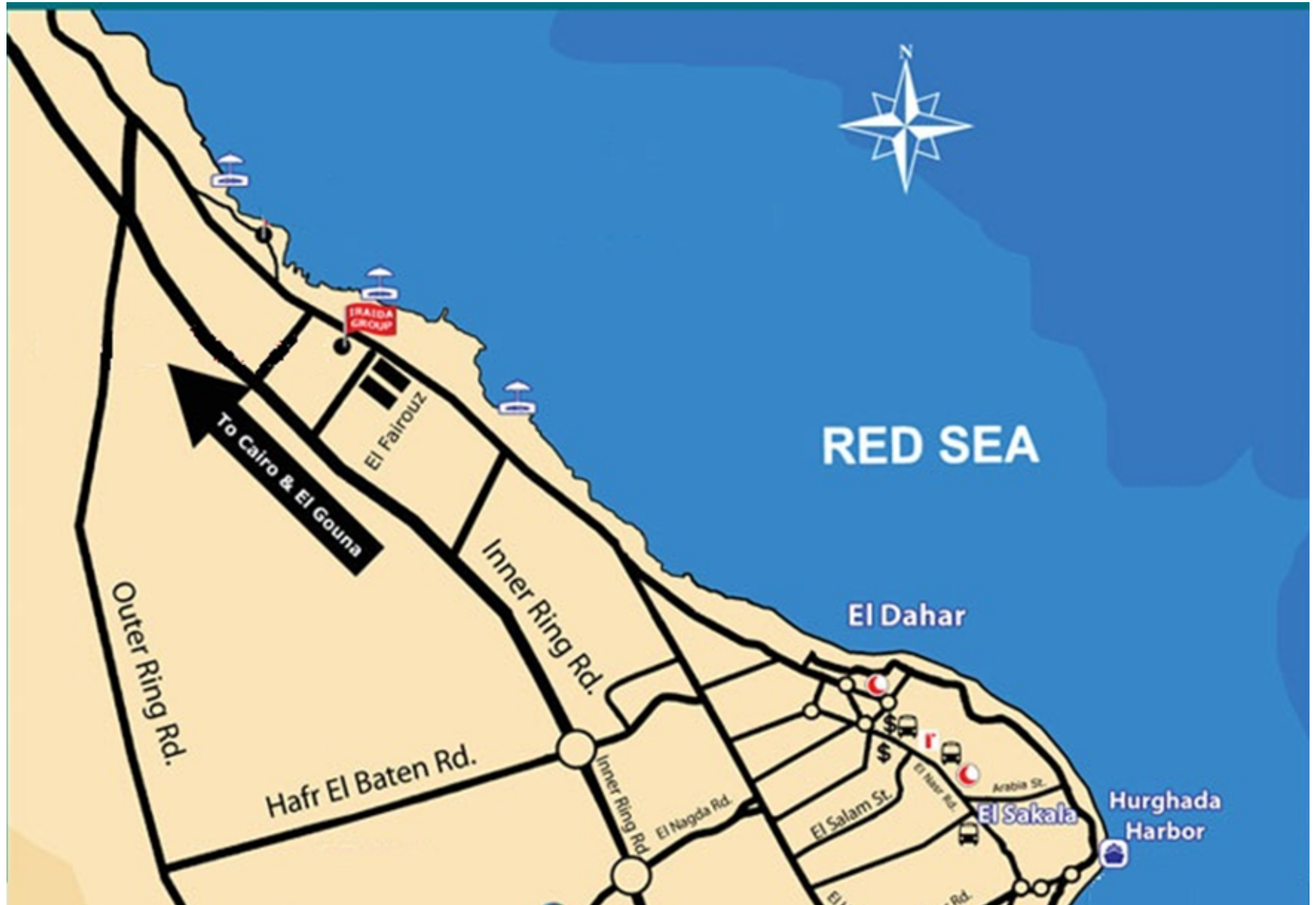
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## 1b. Project Map and Coordinates

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







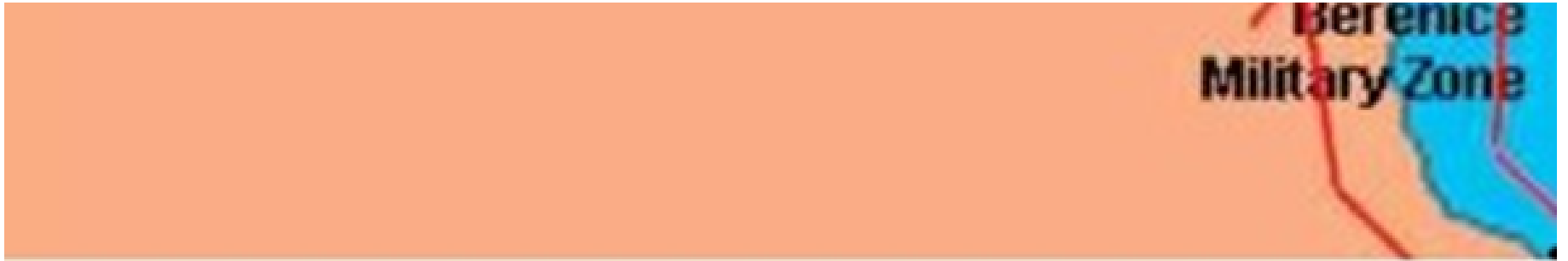


Figure: Hurghada Maps (Coordinates Area 27.2579° N, 33.8116° E)

Table: Northern Protected Islands

Island	Location	Area	Distance from the shore	Description
Ashrafi Island	27°:45':57' N and 33°:42':4.49' E	1.4 km <sup>2</sup>	12 km	Coralline Island surrounded by submerged coral reef with narrow channels.  The island is composed of 3 small elongated isles located at the entrance of Gubal strait southern Gulf of Suez.
Tawila Island	27°:35':15.24' N and 33°:45':52' E	21.5 km <sup>2</sup>	22 km	Has sandy beaches and surrounded by shallow lagoons.  Has recreational activities (snorkeling and diving).  Hotel construction started on the island in 2020 (Mahdy <i>et al</i> ., 2021).
Ghanim Island	27°:46':23' N and 33°:35':51.7' E	4.6 km <sup>2</sup>	3 km	It is surrounded by submerged reef that extends to Ashrafi island and  The Island is located near the coast of Gabal el Zeit and the fishermen's port Marsa Ras El Bahar
Small Gubal Island	27°:41':23" N and 33°:46':34.6"E	1.5 km <sup>2</sup>	30 km	Located at the south entrance of the Suez Gulf.  It has a sandy beach that is a nesting area for Hawksbill sea turtles.
Northern Um Elhimat Island	27°:39':9.1' N and 33°:38':19.45' E		4.5 km from the coast of Ras Gamsa	Surrounded by a submerged reef barrier. There is an oil platform located approximately 3 km east of the Island
South Um Elhimat Island	27°:37':56.91' N and 33°:40':29.91' E		lies to the south of the North Um Elhimat Island	Surrounded by a submerged reef barrier.
South Geisum Island	27°:39':4.29" N and 33°:42':33.25"E	9.7 km <sup>2</sup>	5 km west of Gubal Island and	Characterized by a monospecific mangrove stand <i>Avicenna marina</i> , surrounded by submerged back reefs and few lagoons.  Has an old harbor in the southern part, extends for 200 m long
North Geisum Island	27°:41':5.63" N and 33°:41':26.78"E		0.5 km	Just a small extension to the southern island separated by submerged back reef

## 2. Stakeholders

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

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

1. The project team has conducted meetings with national stakeholders to sharpen the project activities and expected outcomes, collect baseline information, assess gaps, identify the project role. The consultations are conducted with the following agencies:

- Ministry of Environment
- Minister of Trade and Industry
- Center for Environment & Development for the Arab Region & Europe (CEDARE)
- Hurghada Environmental Protection and Conservation Association (HEPCA)
- Hurghada Business Association
- Hurghada and Red Sea Chamber of Hotel Establishments
- Advisor to the governor on environmental affairs

2. The relevant outcomes of these meetings are integrated in the PIF document. The project team collected detailed baseline information on energy, environment, gender streaming, waste management, potential for e-mobility and tourism activities. In addition to its impact on natural resources and economy. Literature review on biodiversity and relevant studies such as Red Sea environmental assessment studies conducted.

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

Table 5: Project Stakeholders and their Role in the Project

Stakeholder	National Mandate and Role in the project
Egyptian Environmental Affairs Agency (EEAA)	<p><b>Mandate:</b> EEAA represents the executive arm of the Egyptian Ministry of State for Environmental Affairs. The Administrative Council of the Agency is composed of the Minister of Environmental Affairs as Chairman, with the EEAA Chief Executive Officer as Vice Chairman, plus representatives from the ministries involved in environmental issues, non-governmental organizations (NGOs), the State Council, the public business sector, universities and scientific research centers. The main functions of EEAA include:</p> <ul style="list-style-type: none"><li>• Formulating environmental policies.</li><li>• Preparing the necessary plans for environmental protection and environmental</li></ul>

	<p>development projects, following up their implementation, and undertaking pilot projects.</p> <p>In addition, EEAA is the National Authority in charge of promoting environmental relations between Egypt and other countries, as well as regional and international organizations.</p> <p><b>Role:</b> The Agency is the national focal point for all GEF projects and activities. Within the national council on climate change, it is the main coordinating entity responsible for monitoring progress towards the nationally determined contribution (NDC) and as such will track the contribution of the project towards the NDC. EEAA will serve as Chair of the Project Steering Committee and will be the main Government counterpart responsible for the overall coordination and monitoring of this project as well as ensuring that the project outputs are well-aligned with the Ministry's plans and strategies. The Ministry is making efforts on supporting policies to oblige waste sorting and ban single use plastics in hotels with trainings and communicating best practices. Policy intervention for water desalination in addition to issue of the salt content in desalinated water that is above standards. The ministry's support will be required in the main project components to achieve project targets</p>
<p>The Operational Unit for Development Assistance (OUDA) (<a href="https://www.ouda.org.eg/">https://www.ouda.org.eg/</a>)</p>	<p><b>OUDA in Brief</b></p> <p>OUDA was established in partnership between the Ministry of Foreign Affairs (MOFA) and UNDP. Upon the Prime Minister decree in 2003, the unit became operational under the Ministry of International Cooperation.</p> <p>OUDA is formulated to provide operational assistance to national development entities particularly under UN Development System Support (governmental, non-governmental, public or private sector) to enhance their programs and projects design capabilities for external funding purposes as well as to optimize their national execution capabilities for qualitative delivery. The development objective of OUDA is to foster national self-reliance in the administration of externally-assisted development projects, and maximize the use of foreign funds inputs. Over the past years, formulation, implementation, and execution of programs and projects have been carried out by the UN specialized agencies and donor community with the accompanying overheads. This process has made the machinery dependent on the services of the external executing agencies of technical co-operation as well as UNDP field office services. This creates a need to assist Nationally Executed projects (NEX) for quality implementation and timely realization of outputs and immediate objectives. There is a need to provide support to host institutions in carrying out operational, administrative, financial and logistical functions in accordance with UN and GOE policies and procedures.</p> <p><b>OUDA's Financial Management</b></p> <p>OUDA's financial services are tailored to the requirements of project development partner, ensuring project directors receive monthly, quarterly, and annual budget and financial reports giving them a complete picture of their projects financial situation without bearing the related administrative burdens. OUDA provides cooperating projects with fund management services including budget forecasting and revision, payroll administration, processing of payments to suppliers of goods and services and financial reporting. Upon concluding a cooperation agreement with OUDA, project staff designated as financial focal points are invited to OUDA premises for an intensive orientation. Participants are introduced to OUDA procedures in order to facilitate communication and activities between offices. Subsequently, OUDA</p>

	<p>can provide cooperating projects with fund management services including budget forecasting and revision, payroll administration, processing of payments to suppliers of goods and services and financial reporting on a monthly, quarterly and/or annual basis. Finally, OUDA has the capacity to provides cooperating projects with pre-auditing services, which can be provided directly, through documentation held by OUDA as the source of project disbursement.</p> <p><b>OUDA's Trust Fund</b></p> <p>National Impact Investment Fund in Egypt: The Fund would be an incubator to support emerging development projects, encourage investments that contribute to achieving development goals such as eliminating poverty, and provide job opportunities and renewable energy would be among the fund's first activities. The growth of startups would be spurred through offering competitive market incentives, supporting small investors via partnerships, and providing investors with technical trainings and with access to the foreign market and advanced technology. The Fund aimed to increase support to the private sector to participate in the development process, connecting development goals with investments that have social and environmental dimensions with a view to provide better services to citizens at lower costs. The Fund would bear risks with small investors and would support them to expand their projects, noting that focus was given to the quality of investment and its impact on citizens as well as on ensuring that those who need support have access to it.</p> <p><b>Mandate:</b></p> <p>The mandate of OUDA is to provide and improve support to externally assisted programs and projects, providing its services to ministries, private sector, NGOs which are recipient of official foreign development assistance. To develop a cadre of national professionals who will be needed in order to render development assistance more effective, objective-oriented and cost effective.</p> <p><b>Role:</b> OUDA is considered as a strong candidate to be the main or overall executing agency under the project (to be assessed, detailed and confirmed during PPG phase)</p>
The Red Sea Governorate	<p>Red Sea Governorate is located between the Nile and the Red Sea in the southeast of the country. It consists of its capital the city of Hurghada in addition to 5 other cities (Ras Ghareb – Safaga – Qusier – Marsa Alam – Shalatin). The governorate is looking to overcome many barriers that is facing and to work towards its strategic national urban development plan which are summarized mainly in the water scarcity, energy scarcity and solid waste</p> <p><b>Role:</b> The project will collaborate with the governorate on most of project outputs and activities. Particularly where policy support is needed to fill in the legislative and institutional gaps to support sustainable development and raising awareness and capacity building that will be directed to its inhabitants to enable the integration of the climate smart technological innovation. The governorate will be one of the main stakeholders as well as the beneficiary through participating trainings.</p>
Ministry of Transportation (MoT)	<p>The Ministry of Transportation of Egypt is the part of the Cabinet of Egypt concerned with transportation. It is responsible for meeting the transportation needs of the country, whether by sea, land or air, and is aligned with Egyptian national development plans. It is governed by the Minister of Transportation.</p>



	<p><b>Mandate:</b> Developing the competitiveness of Egyptian maritime transport by achieving integration among Egyptian seaports to enhance competitiveness with neighboring ports to become attractive to shipping lines and domestic and foreign investments, and to play an active role in the local and international economy and facilitate trade and transform Egypt into a global center for energy, trade and logistics at the regional level.</p> <p><b>Role:</b> MoT has an effective contribution in the Egyptian national economy and the foreign trade through creating efficient cadres capable of influencing the decision makers in the field of maritime transport on the international level. The MoT will be a member of the Project Steering Committee to facilitate coordination on the activities involving transportation and relevant policies.</p>
Ministry of Tourism and Antiques (MOTA)	<p><b>Mandate:</b> MOTA has the responsibility for planning, coordinating, and promoting tourism development projects within the framework of the country's general policy and its economic plan. MOTA has a Green Tourism Unit (GTU) that is mandated to promote use RE/EE in tourism sector and act a focal point for coordination with MOE/EEAA.</p> <p><b>Role:</b> The GTU will be a member of the Project Steering Committee to facilitate coordination with the tourism enterprises. Also, the Project will engage with MOTA to discuss and setup the financial support mechanism for green investments in hotels and touristic infrastructures.</p>
Egyptian Tourism Authority (ETA)	<p>Ministry of Tourism strongly encourages Energy Efficiency and conserving all scarce resources. Tourism developments are encouraged to adopt measures of energy conservation, use of clean energy alternatives, including renewable energy such as solar power. This strategy is crucial for tourism sector; hotels' facilities to examine and audit their use of energy and electricity to envisage the best economic way to focus on the activities with highly intensive use of energy such as laundry, water heating including swimming pools, air conditioning and lighting with the aim to lower their annual electricity bills and operation costs. ETA is part of the Ministry of Tourism and Antiques of Egypt which part of the Egyptian Cabinet</p> <p><b>Mandate:</b> The authority works on promoting tourism on both national and international levels. <b>Role:</b> Awareness raising through creation of marketing material and as advisory for travellers of different interests and categories to help direct them to their touristic interest whether for a historical archaeological trip to a healing sanctuary to other forms of travel destinations.</p>
The New and Renewable Energy Authority (NREA)	<p>The NREA functions under the of the Ministry of Electricity and Renewable Energy. The NREA is also a project stakeholder of GEF-UNIDO project 'Utilizing Solar Energy for Industrial Process Heat in Egyptian Industry' GEF# 4790.</p> <p><b>Mandate:</b> The NREA serves as the focal point for expanding the use of renewable energy resources in Egypt and is implementing projects involving the use of wind energy, solar energy and biofuels. NREA also has a well-equipped testing laboratory for renewable energy technologies and energy efficient appliances.</p> <p><b>Role:</b> NREA has a list of certified suppliers for renewable energy technologies and will support the RE and EE technical activities and solutions offered by the project.</p>
The Electric Utility and Consumer Protection Regulatory Agency (ECPRA)	<p>Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA) is a legal entity affiliated to the Minister of Electricity and Energy.</p>

Agency (EgyptERA)	<p><b>Mandate:</b> EgyptERA is regulating, supervising and controlling all matters related to electricity generation, transmission, distribution and consumption in Egypt with the aim of ensuring the availability and continuity of supply and satisfying environmental protection, the interests of the electric power consumers as well as the interest of the producers, transmitters and distributors.</p> <p><b>Role:</b> EgyptERA will facilitate the connection of the installed renewable energy technologies with the electricity grid</p>
Tourism Development Authority (TDA)	<p>The TDA is the governmental entity that manage all lands allocated to establish tourist regions. Its main office is in Cairo and has many branches in other governorates.</p> <p><b>Role:</b> The project will collaborate with TDA through incorporating guidance in particular into formulating touristic development plans and payment of services and utilities costs in line with its guidance.</p>
Hurghada Environmental Protection and Conservation Association (HEPCA)	<p>HEPCA is an internationally recognized non-profit NGO specializing in the field of marine and land conservation. It was founded in 1992 in response to serious environmental threats affecting the Red Sea's delicate and pristine ecosystem.</p> <p><b>Mandate:</b> HEPCA has grown into an international team of scientists and industry experts. The NGO is actively working towards the protection and preservation of the natural resources of the Red Sea, as well as promoting conservation and sustainable tourism practices. HEPCA works closely with a number of Egyptian governmental departments including; the Red Sea Governorate (RSG); the National Conservation Sector; and the National Parks of Egypt.</p> <p><b>Role:</b> HEPCA will be working closely on the ground with the project as a source for information and aiding entity for data collection. The association can help achieve the project targets specially with the raising awareness and capacity building components.</p>
Egyptian Hotel Association (EHA)	<p>The Egyptian Hotel Association (EHA) is a non-governmental body under the patronage of the Egyptian Ministry of Tourism having as members all hotels, owning and/or management companies that have their license issued by the Ministry of Tourism.</p> <p><b>Role:</b> The hotels are one of the main beneficiaries where clean energy and waste, as well as e-mobility solutions shall be intervened. The EHA is an important partner for accessing the hotels, resorts and develop together appropriate awareness, dissemination and capacity building activities among hotel management, operations and involved staff.</p>
Private sector and investors	<p>Tourism enterprises, hotels, diving center operators, fisheries, boat operators, transportation fleet managers, charging point operators are the private sector stakeholders relevant to the project's planned interventions.</p> <p><b>Role:</b> Preliminary discussions with the private sector on co-financing have been held and will be solidified through the PPG phase through further consultations and analysis of ongoing initiatives. This includes investments in hotels and other hospitality structures, tourist boats and diving centers.</p>
The National Women Council	<p>The National Council for Women was established by Republican Decree No. (90) of 2000 as an independent national mechanism affiliated with the President of the Republic that proposes general policies for society and its constitutional institutions for the advancement of women, activating their role and empowering them socially, culturally, economically</p>

	<p>cally and politically, and proposing legislation and policies that support their rights. The council was reconstituted to the National Council for Women, which included for the first-time members of the National Council for Women, youth and rural women, as well as experts and experts in women and development affairs</p> <p><b>Mandate:</b></p> <p>The council seeks to consolidate recognition and recognition of the essential value of Egyptian women's rights as guaranteed by the constitution and to activate and ensure the availability, respect and protection of these rights on the ground, taking into account the solid principles of social justice and equal opportunities, equality and non-discrimination, protection, and empowerment. The council's work strategy is based on the results of measuring the effectiveness of government policies and directions related to the advancement of women's status, developing social, cultural and legal frameworks in order to bridge needs and gaps and integrating a gender perspective into the state's sustainable development strategy - Egypt Vision 2030 - in accordance with the Women Empowerment Strategy 2030.</p> <p><b>Role:</b> The project will collaborate with the council and benefit from its area of expertise to assess the baseline for gender mainstreaming activities, aiming to promote gender equality and the empowerment of women (GEEW) and to improve women's participation and decision-making and helping with the sex-disaggregated data collection and performing accurate gender analysis.</p>
TU-Berlin University	<p>Campus El Gouna was established to act as a scientific and academic field office of Technische Universität Berlin on the Red Sea in Egypt. In its new satellite Campus in El Gouna, TU Berlin offers three Master degree programs and furthermore great possibilities for science, research and development and events of all kind. Campus El Gouna is a unique public-private partnership (PPP) project in the field of education export. It was financed by TUB alumnus Samih Sawiris and opened its doors in 2012.</p> <p><b>Role:</b> TU-Berlin is expected to work with the project for the academic intervention where research data and previous related projects information could be collected as well as their integration and acting as a hub for the project capacity building and raising awareness activities as it has connections with various related entities.</p>
General Authority for Fish resources Development (GAFRD)	<p>Presidential Decree No 465/1983 describes the powers and duties of GAFRD, including the right to lease all lands within 200 m of shorelines for aquaculture and fisheries activity. In addition, Decision No. 70/1986 deals with the renting of land allocated by the GAFRD for the establishment of fish culture and hatcheries. A Committee of the Authority is responsible for defining areas suitable for fish farming and hatcheries, and for dividing them into economic units for leasing.</p> <p><b>Mandate:</b> Law No 124/1983 on fishing, aquatic life and the regulation of fish farms is the main body of legislation on fisheries. The Act contains a number of provisions on aquaculture. The Act is administered by the General Authority for Fisheries Resources Development (GAFRD), established by Presidential Decree No 190/1983, falling under the Ministry of Agriculture.</p> <p><b>Role:</b> The project will collaborate closely with GAFRD on project activities involving fisheries and relevant policies.</p>
Local Fishermen	Local fishermen around 1200 working on 300 boats, put a lot of pressure on marine life as a direct reason for overfishing

hing, fishing during the yearly banning period and unsustainable fishing practices.

**Role:** Viability assessment of integrating them in tourism and zoning for all activities that is done in the sea (tourism related, fishing, petroleum, etc.). Capacity building and raising awareness on the technological interventions that the project will bring such as electric boats, sewage tugs and other RE/EE measures.

### 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).**

1. The project structure includes a dedicated output targeting to mainstream gender and youth dimensions in national policies (Output 1.4.1). At least 42% of the total number of project beneficiaries (25500) is expected to be women. Further explanation is given in the GEBs section (section f) and in the **Annex H** (See separate file).
2. UNIDO recognizes that gender equality and the empowerment of women have a significant positive impact on sustained economic growth and inclusive industrial development, which are key drivers of poverty alleviation and social progress.
3. The Egyptian Constitution guarantees the same rights to all citizens, men and women alike. Article 40 of the Constitution states that “citizens are equal in front of the law and equal in rights and duties, and that there shall be no discrimination between them based on gender, origin, language or belief.” The Government of Egypt is furthermore also a signatory to, and member of, a number of key international agreements that already commit the country to promoting gender equality and the empowerment of women. These include chapter 24 of Agenda 21 (United Nations Conference on Environment and Development, 1992); the Johannesburg Plan of Implementation (World Summit on Sustainable Development, 2002); paragraph K of the Beijing Platform for Action (Fourth World Conference on Women, 1995); the World Conference on Human Rights (1993); the International Conference on Population and Development (1994); the World Summit for Social Development (1995); the Millennium Declaration (2000); and the requirements and agreements set out in the Convention on the Elimination of All Forms of Discrimination Against Women.<sup>[1]</sup>
4. The Government is committed to the improvement of the socio-economic welfare of its population. Remarkable improvements have been observed in the empowerment of women in all areas of development. In the last two decades, Egyptian women appear to have been acquiring new attributes as a result of their increased access to education, employment in the formal sector as well as exposure to globalization. There is a significant increase in the number of women occupying high managerial posts, and other positions previously closed to women. Examples of these positions include the posts of university presidents, judges and chairs of city councils. The post of Governor is still closed to women. Today’s young generation of women have boundless aspirations and compete with their male peers in education as well as employment.<sup>[2]</sup>
5. However, barriers were faced throughout previous projects taking place in Egypt specifically addressing GEEW due to the following:
  - Lack of gender-disaggregated census data on economic activities
  - Lack of data on female participation in the industrial and manufacturing sector
  - Lack of available baseline information from business associations<sup>[3]</sup>
6. UNIDO recognizes that interventions related to energy and climate change are expected to have an impact on people and are, therefore, not gender-neutral. This is also true for projects related to tourism. In fact, due to diverging needs and rights regarding energy consumption and production, different exposure and thresholds relevant for women and men of different age, each individual is expected to be affected differently by the project (in terms of their rights, needs, roles, opportunities, etc.). As a guiding principle, the project will ensure that both women and men are provided equal opportunities to lead, participate in and benefit from the project. In practical terms:
  - During PPG phase the project will conduct a gender analysis and based on this develop a gender mainstreaming action plan.

- Efforts will be taken to ensure that both women and men have equal opportunities to lead, participate in and benefit from all project activities, both at managerial and technical levels.
  - Gender-responsive recruitment will be practiced at all levels where possible, especially in selection of project staff, researchers and experts, as well as technical staff. In cases where the project does not have direct influence, gender- responsive recruitment will be encouraged.
  - Project staff and stakeholders will be trained on gender mainstreaming and their awareness raised on gender bias.
  - When data-collection or assessments are conducted as part of project implementation, gender dimensions will be considered. This will include gender-disaggregated data collection.
  - All decision-making processes will consider gender dimensions. At project management level, efforts will be made for Project Steering Committee meetings to be gender balanced, and to invite observers that represent gender dimensions, including organizations/associations promoting gender equality and advocating women's empowerment. Also, at the level of project activity implementation, efforts will be made to consult with stakeholders focusing on gender equality and women's empowerment issues. This is especially relevant in policy review and formulation.
  - Research, data and assessments will consider gender and age differentiated needs of women and men from different social groups.
7. Taking into consideration the lack of gender related material in the renewable energy sector and more particular in the solar energy sector it is advisable that qualitative and quantitative data are collected and compiled from relevant authorities along project implementation in order to better inform the policy instruments and apply gender mainstreaming based on the findings.

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[1] El Gohary (2016)

[2] El Gohary (2016)

[3] El Gohary (2016)

**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.**

**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.**

1. The project will build on the experience of sustainability initiatives and investments (e.g., on energy efficiency and waste reduction) in hospitality structures so far only led by international hotel chains (namely; Hilton, Marriott - Serve360, Movenpick - SHINE etc.). For example, Marriott International commits to reduce carbon intensity by 30% and achieve 30% renewable electricity use by 2025 [i]. Hilton hotels are pursuing continued use of renewable energy and aims to reduce carbon intensity by 61% in 2030 [ii]. The project will benefit from these knowledge and technical data collected through consultation and site visits. The project aims to mainstream this momentum across all the tourism enterprises including diving center and tour operators as well as fisheries in Hurghada. The experience of the large hotel chains will be showcased to the smaller hotels through workshops and trainings under Outputs 3.1.1 and 3.1.2.
2. The project will stimulate demand in smaller scale tourism SMEs through technical studies to assess the investment risks and de-risking solutions such as the financing framework to be developed and the low-cost co-financing options such as COVID-19 recovery packages (e.g., CBE). The hotels tourism enterprises in Hurghada are eligible to apply for CBE financing provided for economic recovery from the pandemic. The project will work with the tourism enterprises to link them with the CBE, tourism banks or other similar national recovery packages with the aim to secure co-financing for the green technology investment projects. During the PPG, further engagement will take place with the CBE to investigate the criteria and the details of the application processes and recommended models
3. Further relevant national and international financial institutions will be engaged during the PPG stage. The project will support the setting up of a coordination mechanism between the mentioned financial institutions (e.g., CBE, EBRD) to support the investments in various areas of intervention such as: solar water heaters, energy efficient cooling and lighting systems, electric shuttle buses, etc.
4. Target private sector stakeholders include hotels, diving center operators, fisheries, boat operators, transportation fleet managers, charging point operators are the private sector stakeholders relevant to the project's planned interventions. In addition, tour operators active in the land and maritime transportation namely; Nabq Tours, Ramashka Tours, Safari Sahara Hurghada, Tez Tour Egypt and Zakharious Tours. The project will engage with the private sectors stakeholders through the facilitation role of Egyptian Tourism Federation, the Egyptian Hotel Association, and the Chamber of Diving and Water Sports.
5. Private sector investment will be leveraged through the replicable investment projects generating short- to medium term return on investment. As such, the private partners will have high interest that the projects operate successfully, for them to not only recover but generate returns on their investments. Given the commercial interest in sustaining the operations of the projects, the different proponents will also have an interest, in keeping the projects running and hence sustain the global environmental benefits beyond the project's lifetime. The project will promote the commercial benefits of sustainable branding of tourism enterprises, considering increasing awareness and interest of international tourists towards sustainable/eco-tourism.
6. The project will benefit from UNIDO's extensive experience and the ability to leverage investment from private sector actors, in particular through establishing a sectoral approach.
7. Estimated co-financing options will be validated in PPG through stakeholder engagement with the private sector entities.
8. In addition, private sector will benefit from targeted technical assistance, training and awareness raising programs.

[i] [http://serve360.marriott.com/wp-content/uploads/2019/10/Serve-360-goals-page-tabloid\\_2-updated-20180916-English.pdf](http://serve360.marriott.com/wp-content/uploads/2019/10/Serve-360-goals-page-tabloid_2-updated-20180916-English.pdf)

[ii] <https://cr.hilton.com/wp-content/uploads/2020/04/Hilton-Energy-and-Carbon-Fact-Sheet.pdf>



## 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)

See the special section for climate change risk below the main risk table.

Table 6. Project Risks and Mitigation Measures

Risks	L e v e l	R i s k T y p e	Mitigation Measure
Lack of partnership engagement (from stakeholders, government, private sector, etc.)	L o w	G o v e r n m e n t a l	Early engagement strategy, regular outreach with networks to keep the momentum. Dissemination of information and knowledge to ensure scalability of project beyond the selected pilot cities.
Technological Interventions are not well integrated or adapted or supported by the community and private sector such as hotels and ports	M e d i u m	T e c h n o l o g i c a l	Efforts will be done to raise awareness and develop capacity building sessions to get the buy-in from the local communities and private sectors in order to facilitate the process of incorporating new technological solutions within the governorate whether as e-mobility or using RE/EE solutions. Regular monitoring and reliable change measurement tools shall be used to effectively record the adaptation of the society to the use of the new interventions and their effect on both the micro and macroeconomic levels

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Failure to achieve project outcomes and objectives after successful delivery of outputs.	L o w	S u s t a i n a b i l i t y	By making market players fully aware of the economic potential of RE technologies and by equipping them with the capacity and tools to realize and reap the benefits of such potential, the project will generate a self-reinforcing market. In addition, the policy framework and financial mechanisms that will be put in place will create a positive context that is expected to ensure the attainment of the project outcomes and their sustainability.
Lack of interest for investment	L o w	F i n a n c i a l	Private sector investment will be leveraged through the replicable investments projects generating short-term return on investment. As such, the private partners will have high interest that the projects operate successfully, for them to not only recover but generate long-term returns on their investments. Given the commercial interest in sustaining the operations of the projects, the different proponents will also have an interest, in keeping the projects running and hence sustain the global environmental benefits beyond the project's lifetime.
<u>Climate Change</u> - <u>See special section below for climate change risk</u>	M e d i u m	E n v i r o n m e n t a l	The project will focus on increasing overall resilience of EEC– the climate change risks will directly be addressed by project activities significantly reducing impact of climate change on the project.
Environmental Change	I	F	The project components address the problem of sustainability considering local ecosystems, so the realization of

Environmental change	L o w	E n v i r o n m e n t a l	The project components address the problem of sustainability considering local ecosystems, so the realization of the project should effectively decrease the risk of environmental change.
Low participation rates of suitable female candidates due to lack of interest, inadequate project activity or missing qualified female population within engineering sector.	L o w	G e n d e r	<p>The project will pursue thorough gender responsive communication and ensure stakeholder involvement at all levels, with special regard to involving women and men, as well as civil society and non-governmental organizations promoting gender equality. This shall mitigate social and gender related risks, promote gender equality, create a culture of mutual acceptance, and maximize the potential contribution of the project to improving gender equality in the energy field. As gender has been clearly mainstreamed throughout the project design, this will help mitigate any potential risk.</p> <p>Taking into consideration the lack of gender related material in the renewable energy sector and more particular in the solar energy sector it is advisable that qualitative and quantitative data are collected and compiled from the industries and from authorities along project implementation in order to better inform the policy instruments and apply gender mainstreaming based on the findings as well as developing workshops to include national and international NGOs as well as with business Associations esp., the National Women Council, International Experts, Women's and social NGOs and Equal Opportunity Units</p>

<p>COVID-19</p> <p>Risk of lack of resources, failing to implement according to project schedule or change in priorities from stakeholders due to ongoing economic and social challenges due to pandemic or its consequences</p>	<p>M e d i u m</p> <p>G l o b a l</p>	<p>The tourism sector will stay as one of most vulnerable sectors to COVID-19 travel restrictions and social distancing rules due its human dependence.</p> <p><u>Opportunities:</u></p> <p>The opportunities on the national economic recovery mechanisms are incorporated into project design. The project is aligned with Egypt's recovery policies giving particular focus on supporting the suffering tourism sector. The project will target the financial support packages dedicated to tourism sector (e.g., Central Bank of Egypt's stimulus package) to mobilize additional co-financing to steer the investments towards achieving more global environment benefit</p> <p>s. Another opportunity could be that the touristic enterprises such as hotels would plan retrofitting and maintenance works (such as energy efficiency improvements and renewable energy), as a preparation to the uptake of tourism after the pandemic. Thus, they would have increased interest in project's technical assistance activities in the absence of their guests.</p> <p><u>Risk mitigation:</u></p> <p>The project will fully consider the negative implications of COVID-19 during the PPG phase and identify the most appropriate ways to conduct implementation by using safety measures and preventive precautionary procedures. Further consultations will be conducted during PPG on how COVID-19 could have bearing on the project's implementation and design interventions and activities to consider additional challenges that may subsequently arise due to the pandemic. That would be pinned in the project schedule to accommodate to the prolongation of activities implementation and mobilization challenges during the pandemic period.</p>
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## Climate Change Risk

The key potential climate change risks specific to Hurghada's case are identified below:

- **Storm surge, floods and sea level rise:** The coastal flood hazard is classified as high in the Red Sea area<sup>[1]</sup>. The area has a risk of flash floods which occur once every 5–10 years caused by differences in pressures coming from cool Europe and warm Asia<sup>[2]</sup>. Hurghada is highly susceptible to sea level surge due to the geographical characteristic of its location. Flat, long and wide coastal plain where Hurghada is located on, has a very low resistance to waves on the land. The continuous coral reef system and mangroves parallel to the coastal strip provides some level of crucial natural protection against sea surge and storm waves. The degradation of coral reefs and mangroves due to climate change impacts on sea temperature and acidification will further increase the vulnerability of Hurghada against climate hazards.

- Recent studies show that **thermal refugia against coral bleaching** exist throughout the entire northern Red Sea where Hurghada is located (Fine et al., 2019). Thermal refuges are crucial to help mitigate the effects of increasing sea temperatures. The northern Red Sea harbors reef-building corals that live well below their bleaching thresholds and thus it is proposed by (Osman et al., 2018) that the region represents a thermal refuge of global importance.

- **Drought, heat waves and dust storms, cyclones:** Egypt is a highly arid country and receives very little annual precipitation. Hurghada receives less than 100mm/year. The frequency, severity and intensity of these climate-induced hazards is expected to increase in Hurghada subtropical-desert climate due to increasing precipitation anomalies in Egypt.

- The table below (Climate Risk Profile: Egypt (2021): The World Bank Group) points out the trends of increasing anomalies in temperature and precipitation in the future scenarios in Egypt

**TABLE 3. Data snapshot: CMIP5 ensemble projections**

CMIP5 Ensemble Projection	2020–2039	2040–2059	2060–2079	2080–2099
<b>Annual Temperature Anomaly (°C)</b>	<b>+0.6°C to +1.7°C</b> (+1.6°C)	<b>+1.5°C to +3.0°C</b> (+2.1°C)	<b>+2.4°C to +4.5°C</b> (+3.3°C)	<b>+3.4°C to +6.2°C</b> (+4.4°C)
<b>Annual Precipitation Anomaly (mm)</b>	<b>–21.6 to +20.1</b> (–0.5 mm)	<b>–27.3 to +21.0</b> (–1.9 mm)	<b>–26.5 to +26.7</b> (–1.6 mm)	<b>–30.2 to +28.2</b> (–2.9 mm)

*Note:* The table shows CMIP5 ensemble projection under RCP8.5. Bold value is the range (10th–90th Percentile) and values in parentheses show the median (or 50th Percentile).

- Rapid climate change accelerates the biodiversity loss (e.g., coral reef bleaching, impact on mangroves) due to increasing sea temperatures and changing currents. The studies have already shown the slowing of coral reef growth in the Red Sea due to warming of the sea (Cantin et al., 2010). Their deterioration of coral reefs not only exacerbates marine biodiversity but may reduce coastal resistance to storm waves (Hereher, 2015).

#### **Mitigation Measures:**

Project planning, design, and construction practices will account for coastal flood and storm surge from cyclones. Egypt's national and Red Sea Governorates local emergency response policy and protocols to coastal flooding will be incorporated into technology demonstration project design. The project will consult with an expert familiar with coastal flooding risk that has experience with natural hazards and/or construction practices in Hurghada. Such consulting professionals include structural engineers, civil engineers, electric engineers.

During site selection for the demonstration projects, relevant climate change risks such as sea level rise will be taken into consideration.

The relevant project activities (e.g., natural capital assessment and development plans) will consider the linkage between climate change and biodiversity with a focus on the impacts of increasing sea temperatures on coral reefs, mangroves and marine ecosystem and the secondary risks of livelihood loss of fishing communities.

The trainings targeting governmental stakeholders, decision makers and urban developers will include climate risks and corresponding mitigation measures for Hurghada. For instance, the project will promote the use of coastal climate sensitivity tools and maps. The project will enhance the awareness of tourism industry and fisheries on the increased frequency and severity of climate hazards and the vulnerability of these sectors due to its dependence on natural assets (coral reefs, marine biodiversity).

During the PPG, a detailed climate risk assessment including mitigation measures will be conducted as part of the ESMP and disseminated with all the relevant stakeholders. The outcome of the climate risk assessment (e.g., flood prevention measures) will be incorporated into technology investment planning and design.

[1] <https://thinkhazard.org/en/report/40765-egypt/CF>

[2] Climate Risk Profile: Egypt (2021): The World Bank Group.

## 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.**

1. UNIDO, as GEF implementing Agency for the Project, will play an overarching coordination and liaison role with the executing partner(s), and with the GEF Secretariat. UNIDO will also be responsible for all enquiries regarding the Project implementation progress, mid-term review with the executing partner(s) as well as terminal evaluation and, final Project completion and the achievement of higher level of the project's impacts on the global environment.
2. OUDA has been identified as a candidate project executing entity (PEE) to coordinate the execution of the activities under the project and ensure synergy and collaboration with relevant stakeholders as well as with on-going GEF programme and projects related to the scope of this project and initiatives funded by other donors/institutions in the country. The candidate PEE is involved in executing for the other baseline projects, under the substantive guidance of the Ministry of Environment. The selection of the PEE will be completed during the PPG phase, with a view to maximize the coordination effort with the baseline projects (notably GEF ID 5073 and GEF ID 10117).
3. The project execution will be conducted through one or multiple contractual arrangements between UNIDO and the PEE and the international/national entities -if selected jointly with the Ministry of Environment. Exact executing modalities will be assessed and determined during PPG phase.
4. Capacity assessments of the envisaged PEE -if selected- will be conducted during the PPG, and will further guide the project implementation arrangement.
5. A Project Steering Committee (PSC) will be comprised of Ministry of Environment, UNIDO, Red Sea Governorate and Egyptian Travel Authority. The final composition of the Committee will also be formed during the PPG phase. The PSC will act as an advisory mechanism to ensure the successful design and implementation of the project. The main role of the PSC is to provide operational guidance as well as overall, high-level coordination and project validation forum during the implementation of the project. The PSC will meet regularly at least biannually to track progress and provide opportunities for identifying potential synergies, as well as to increase uptake of lessons and build synergies. Ministry of Environment is envisaged to Chair the PSC.
6. The Project Management Unit (PMU) will be formulated by the national executing entity. The PMU will be responsible for day-to-day management of project activities and ensure regular project monitoring. The PMU will ensure that the activities are coordinated with the ongoing government programs and baseline projects through consultations with project stakeholders. The PMU will report to Project Steering Committee (PSC).
7. The project implementation arrangement will be structured as follows:

# The Global Environment Facility (GEF)

GEF Implementing Agency: UNIDO

## Project Execution

### Project Steering Committee

Ministry of Environment  
UNIDO  
Red Sea Governorate  
Egypt Travel Authority (ETA)

### National Execution Partner

TBD during the  
PPG

Project  
Management  
Unit (PMU)

### Project Stakeholders

Tourism (private) sector  
Biodiversity conservation  
associations and NGOs  
The National Women Council  
Civil society  
Academia



### Figure 5: Project Institutional Arrangement

8. Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.
9. **Legal Context:** "The Government of the Arab Republic of Egypt agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 19 January 1987 and entered into force on 2 July 1987."

## 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

1. The project is in line with Egypt's Sustainable Development Strategy: Egypt Vision 2030, responding to the SDGs. Environment is one of its 4 dimensions and entails an Urban Development Pillar and an Environment Pillar, who have as visions, respectively: A balanced spatial development management of land and resources to accommodate population and improve the quality of their lives and Environment is integrated in all economic sectors to preserve natural resources and support their efficient use and investment, while ensuring next generations' rights. A clean, safe and healthy environment leading to diversified production resources and economic activities, supporting competitiveness, providing new jobs, eliminating poverty and achieving social justice.
2. The project is also fully in line with the Third National Communication Report (2016) to the UNFCCC, which identified tourism as one of the main sectors with large potential and benefit for climate change mitigation actions – including inter alia:
3. Tourist industry mainly considers potential risks from climate change and work with the government to develop strategies for reducing vulnerability to climate change. Given the uncertainties about how tourism could be affected by climate change but the potential for large losses, it would be prudent for the industry to monitor tourist behavior. Government should consider the importance of tourism in allocating water resources and in coastal areas' planning. Tourism is of such high economic value, adequate water supplies for future tourism need to be secured. Coastal planning should consider critical importance of protecting tourism facilities from sea level rise and change in coastal storm regime. This should be done in a manner that protects the attractiveness of tourism facilities.
4. It is essential to develop a Low Carbon Strategy (LCS) as part of GHGs emissions mitigation scheme, for the Egyptian tourism sector which should include, but not limited to, the following policy lines:
5. Improve energy efficiency and load/energy management;
  - Increase on-site energy production from renewable sources, in particular solar energy;
  - Promote for sea water desalination-based concentrated solar power and using highly efficient desalination technologies;
  - Set achievable specific energy, water consumption and waste generation
6. Egypt 1<sup>st</sup> NDC report from 2016 included an initial estimate for the cost of implementing adaptation and mitigation measures in Egypt during the period 2020-2030: USD 73 billion. The report also indicated that the coral reefs which constitute a major attraction in Red Sea resorts are highly vulnerable to climate change.
7. Egypt as a Party to the CBD in 2016 prepared a revised NBSAP / Egyptian Biodiversity Strategy and Action Plan 2015-2030 in line with the CBD Strategic Plan 2011-2020 through a wide participatory process. The project with is different components is in line with the following national targets:
  - 1 – By 2030, **PAs network secured** and expanded to cover 17% of total terrestrial and inland water and at least 5% of coastal and marine representative areas, **especially priority sites of particular importance for biodiversity and key ecological processes, and effective management of PAs.**

- 6 – By 2018, apply CBD tools to monitor and **control the impact of tourism on biodiversity, in particular in protected areas and vulnerable ecosystems.**
- 8a – By 2025, **negative effects of different sectoral policies** (land-use planning, **transport, energy, etc.**) **on priority elements of biodiversity are minimized,** and measures to correct these effects are applied through developing and implementing land use management plans.
- 9 – By 2027, promote the **implementation of good fishing practices** in both Mediterranean Sea and **Red Sea**, favorable to fish protection and their habitats.
- 16 – By 2018, **biodiversity values** are promoted and integrated into national planning process and mechanisms to support **their incorporation into national accounting and reporting systems** to be developed.
- 18 – By 2017, proper NBSAP and **associated resource mobilization are in place**, in addition to establishment of the national biodiversity committee to ensure periodic evaluation of NBSAP

8. Egypt is committed to the Montreal Protocol and to implementing the relevant Programmes of the National Environmental Action Plan. The country is in the process of ratification Kigali amendment, currently the documents are under review from the Ministry of Foreign Affairs. National Ozone Unit and the Egyptian Organization for Standardization and Quality have a collaboration protocol for the development and update of 19 new standards for the safety of freons/refrigerants. An enforcement plan is needed for the existing and newly developed standards and codes.

9. The project is also line with the National Capacity Self-Assessment regarding the three Rio Conventions, given that it includes joint work towards Climate Change and Biodiversity.

## 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.**

1. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.
2. The project will identify and participate, as relevant and appropriate, in meetings and conferences which may be of benefit to project implementation through lessons learned. The project will identify, analyze and share lessons learned that may be beneficial in the design and implementation of similar future projects.
3. The project will incorporate the lessons learned from similar relevant projects in Egypt such as GEF - UNDP Green Sharm El Sheikh Project into the media coverage and marketing campaigns.
4. Different tools such as creation of project website to share its activities, expected impact and the role of the civil society and private sector. Collaboration with other entities through their information exchange platform can be an added channel. Promotion through social media channels, UNIDO portal and participating in EXPOs that in addition to other tools that will be generated on later stage shall be efficient as support to knowledge management. To easily share knowledge and lessons learned within and beyond the project intervention zone, UNIDO's Open Data Platform will be used to collect relevant reports and data on technology investments projects.
5. The project will share the knowledge on best experience of green investment in tourism industry through facilitation role of EHA, Egyptian Tourism Federation, EHA and GSH.
6. All knowledge management activities (such as workshops, trainings, awareness raising) will be gender mainstreamed. This includes integration of gender dimensions into project documents (incl. action plans), publications, for instance presenting sex-disaggregated data, gender-energy nexus theory, gender sensitive language in publications, photos showing both women and men, and avoid presenting stereotypes, as well as assuring that women, men and the youth have access to and benefit from the knowledge created.
7. Continuous monitoring will be conducted throughout the project life-time. Up-to-date reports will be shared with the main stakeholders. The project will develop strategic communication plan for information exchange with the key organizations active in the area such as HEPCA, EHA, GAFRD and other international organizations that can pave the way to achieving project targets and outcomes.

## 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.

As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), the Environmental and Social screening template has been completed and this project has been categorized as "B". As such, an Environmental and Social Management Plan (ESMP) will be developed during the PPG phase. Moreover, depending on the nature, scope and scale of the selected investment projects, the individual investment interventions may need to undergo separate environmental and social screenings and assessments. See attached ESS screening document.

**Supporting Documents**

Upload available ESS supporting documents.

Title

Submitted

Annex H - GEB calculations\_210430

Theory of change - GEF-7 Egypt\_updated\_210430

UNIDO\_ESS Screening

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

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

Name	Position	Ministry	Date
Enas Abou Taleb	Chief Executive Officer and GEF OFP	Ministry of Environment, EEAA	3/22/2021

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

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

The project will take place in Hurghada and surroundings located at the Red Sea coast in Egypt (Coordinates Area 27.2579° N, 33.8116° E).



