



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)

EEAA/OUA

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Sector

Mixed & Others

Taxonomy

Focal Areas, Biodiversity, Protected Areas and Landscapes, Community Based Natural Resource Mngt, Coastal and Marine Protected Areas, Mainstreaming, Tourism, Fisheries, Biomes, Coral Reefs, Climate Change, United Nations Framework Convention on Climate Change, Paris Agreement, Nationally Determined Contribution, Climate Change Mitigation, Sustainable Urban Systems and Transport, Renewable Energy, Technology Transfer, Financing, Energy Efficiency, Sustainable Development Goals, Stakeholders, Private Sector, Individuals/Entrepreneurs, SMEs, Local Communities, Civil Society, Academia, Non-Governmental Organization, Community Based Organization, Consultation, Type of Engagement, Information Dissemination, Participation, Beneficiaries, Communications, Awareness Raising, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Gender results areas, Participation and leadership, Knowledge Generation and Exchange, Capacity Development, Capacity, Knowledge and Research, Knowledge Generation, Course, Seminar, Training, Workshop

Rio Markers

Climate Change Mitigation

Principal Objective 2

Climate Change Adaptation

No Contribution 0

Biodiversity

Principal Objective 2

Land Degradation

No Contribution 0

Submission Date

6/16/2022

Expected Implementation Start

2/1/2023

Expected Completion Date

1/31/2028

Duration

60In Months

Agency Fee(\$)

369,549.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-1	Promote innovation and technology transfer for sustainable energy breakthroughs for accelerating energy efficiency adoption	GET	879,532.00	6,000,000.00
CCM-1-2	Promote innovation and technology transfer for sustainable energy breakthroughs for electric drive technologies and electric mobility	GET	879,531.00	6,000,000.00
CCM-1-3	Promote innovation and technology transfer for sustainable energy breakthroughs for cleantech innovation	GET	879,531.00	6,000,000.00
BD-1-1	Mainstream biodiversity across sectors as well as landscapes and seascapes - Biodiversity Mainstreaming in Priority Sectors	GET	417,134.00	3,117,000.00
BD-2-7	Address direct drivers to protect habitats and species - Reduce pressures on coral reefs and other vulnerable coastal and marine ecosystems	GET	417,134.00	3,116,500.00
BD-1-3	Mainstream biodiversity across sectors as well as landscapes and seascapes through NCAA	GET	417,134.00	3,116,500.00
Total Project Cost(\$)			3,889,996.00	27,350,000.00

B. Project description summary

Project Objective

To mitigate GHG emissions and preserve biodiversity in the coastal area of Hurghada through mainstreaming climate smart technologies and biodiversity conservation practices in tourism, energy and transport infrastructure

Project Component	Financi ng Type	Expected Outcomes	Expected Outputs	Tru st Fun d	GEF Project Financing (\$)	Confirmed Co- Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing(\$)
1. Strategic policy framework in place for a green recovery and sustainable growth of the tourism and other impact sectors in Hurghada	Technical Assistance	1.1. The principles of mainstreaming biodiversity and sustainable natural resources and energy practices in tourism and related operations integrated in existing and future development policies, regulatory frameworks, management plans, green investments and programs aimed at reducing anthropogenic pressure on the ecosystems around Hurghada	1.1.1. Strategic Environmental Assessment (SEA) principles established, including clear baselines to guide policy-making processes, and monitoring the condition of marine, coastal and terrestrial biodiversity in the Red Sea Governorate 1.1.2. Institutional capacity and tools for application of natural capital assessment (NCA) developed and strengthened for application in tourism and other impact sectors in the Hurghada region 1.1.3. Natural Capital Accounting (NCA) of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea Governorate to support improved policy decisions for tourism, energy, fisheries and transport sector	GET	704,758.00	3,350,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing(\$)
			<p>1.1.4. Development of policy and regulatory framework to promote green and circular investments, renewable energy integration and mainstreaming biodiversity conservation and natural resource use measures to limit impacts on biodiversity, ecosystems and GHG emissions (e.g., Sustainable and Green Tourism Plan)</p>			
			<p>1.1.5. Protected areas, marine resources(incl. coral reefs, seagrass beds and associated species)and land resources(mangroves, desert ecosystems and associated species) effectively managed through future development plans and nature-based management that integrate mitigation and offsetting policies based on the outcome of the NCA and supported by</p>			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing (\$)
			<p>completed SEA focusing on the tourism?s (hotels, boats, diving centers) and fisheries, transport and energy impacts on the marine ecosystem and climate change</p>			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing (\$)
2. Green technology investments mitigate GHG emissions and reduce degradation on marine ecosystems, and improve competitiveness of the tourism sector	Technical Assistance	2.1. Green economy investments are mainstreamed and de-risked to reduce biodiversity harmful practices and greenhouse gas emissions and make the business case for increased investments in nature-based infrastructure	<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) including integrated climate-risk, and biodiversity conservation principles</p> <p>2.1.2. Financial mechanism developed and submitted for government's approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity</p> <p>2.1.3. TA to develop green investment projects in renewable energy, energy efficiency and e-mobility facilitated</p> <p>2.1.4. GHG emission inventory developed for the tourism sector, and capacity in place for</p>	GE T	789,000.00	4,500,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing (\$)
			continued tracking and MRV			
			2.1.5. Systematic integration of key biodiversity-friendly design principles, NBS and their effective management including cooperation with and support programs for hotels and dive centers			
2. Green technology investments mitigate GHG emissions and reduce degradation on marine ecosystems, and improve economic competitiveness of the tourism sector	Investment	2.1. Green economy investments are mainstreamed and de-risked to reduce biodiversity harmful practices and greenhouse gas emissions and make the business case for increased investments in nature-based infrastructure	2.1.6. Green investments in renewable energy, energy efficiency and e-mobility implemented through risk mitigation instruments such as long-term incentives with linkages to green recovery stimulus packages	GE T	1,307,000.00	12,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing (\$)
3. Long-term environmental and economic sustainability of low-carbon infrastructure and biodiversity investments are ensured	Technical Assistance	3.1. Enhanced stakeholder capacities, PA management, awareness, partnerships and sustainable financing influence behavior change towards reducing biodiversity and climate impacts and improving incomes	3.1.1. Strengthening institutional capacity, communication and awareness tailored for governmental stakeholder and tourism sector, including sustaining the climate MRV system contribute to improved practices 3.1.2. Participation and contribution in relevant global platforms: international and regional events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation) 3.1.3. 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	GET	710,000.00	4,500,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing (\$)	Confirmed Co-Financing (\$)
			snorkeling guidelines)			
			3.1.4. Improved Protected Area management (including PA and visitor management plan, financial and business guidelines, monitoring programme) and community participation, and benefit sharing from conservation			
4. Monitoring and Evaluation	Technical Assistance	4.1. Adequate monitoring and evaluation mechanisms are in place, facilitating successful project implementation and sound impact as per GEF and UNIDO guidelines	4.1.1. Project monitoring and reporting 4.1.2. Mid-term Review 4.1.3. Terminal Evaluation	GET	194,000.00	1,500,000.00
Sub Total (\$)					3,704,758.00	25,850,000.00
Project Management Cost (PMC)						
	GET		185,238.00			1,500,000.00

Project Management Cost (PMC)

Sub Total(\$)	185,238.00	1,500,000.00
Total Project Cost(\$)	3,889,996.00	27,350,000.00

Please provide justification

C. 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	Infinity-e	Equity	Investment mobilized	1,000,000.00
Recipient Country Government	National Bank of Egypt	Loans	Investment mobilized	20,000,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	73,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	277,000.00
Private Sector	Egyptian Hotel Association	Equity	Investment mobilized	6,000,000.00
Total Co-Financing(\$)				27,350,000.00

Describe how any "Investment Mobilized" was identified

Investment will be mobilized under all components, but most prominently under the Component 2 targeting technology demonstration. The Component 2 will link the pipeline of prepared investments across tourism, energy and mobility sectors with available financial instruments (e.g., NBE), complementing financial initiatives from finance institutions, as well as the local private sector itself wherever feasible. The co-financing from NBE will be mobilized in the form of loans available to tourism enterprises on invest sustainable energy technologies through providing technical assistance the selected private sector companies to comply with the requirements on the loan application, furthermore, detailed technical design and feasibility studies will de-risks these investments. 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.

D. 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 Grant Resources(\$)					3,889,996.00	369,549.00	4,259,545.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
180,000.00	199,100.00	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	WDP A 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	199,100.00	0.00	0.00

Name of the Protected Area	WD PA 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)
North ern Islands Red Sea PA	555543022	Protected Landscape/ Seascape		199,100.00			28.00		
North ern 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	96,000.00		

Indicator 5.1 Fisheries under third-party certification incorporating 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 Large Marine Ecosystems with reduced pollution 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 Marine OECMs supported

Name of the OECMs	WDPA-ID	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 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	338300	195702	0	0
Expected metric tons of CO ₂ e (indirect)	676600	715818	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 ₂ e (direct)				
Expected metric tons of CO ₂ 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 ₂ e (direct)	338,300	195,702		
Expected metric tons of CO ₂ e (indirect)	676,600	715,818		

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Anticipated start year of accounting	2025	2023		
Duration of accounting	10	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	1,764,615,600		

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
Solar Photovoltaic	0.20	3.95		

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	10,750	6,500		
Male	14,750	8,400		
Total	25500	14900	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

On core indicators 2 and 4 the marine protected area covers the total size of the Northern Island Red Sea Protected Area (NIRSPA), the area of 199,100 ha, since the whole PA will be considered in improved management and conservation practices. Whereas the marine habitat out of the PA that is going to benefit from improved practices (est. 96,000 ha) covers the area South of NIRSPA and Hurchada along a coastal strip. The project will update the protected area on WDPA which -inconsistent with national data (it reports that NIRSPA covers 180,000ha). Please refer to project maps provided in the Annexes. More information on the core indicative 6 can be found in section 6. Global environmental benefits as well as

in Appendix I. 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

On Core Indicator 11, it was estimated that 5% of the population of Hurghada would directly benefit from the project, from which approx. 55% men and 45% women. Direct impact will be coming from the improved public transportation system and e-mobility infrastructure to become available across the city, the direct impacts by reduced energy and resource uses (increased efficiency vs. use of renewable energy sources), and the capacity and training activities to be considered in the project: ? Managers, CEOs and owners of hotels and resorts (focus on 2-, 3- and 4-star rated facilities mainly): approx. 75 managers (88% men/12% women) ? Technicians, facility managers, environmental experts in hotels/resorts: from a total of approx. 25,000 employees across the Northern Red Sea, realistically ~200 persons (5% of total, thereof 75% male workers) are going to be engaged in the project activities ? Diving Sector: approx. 2,100 employees in Hurghada only, from which it is assumed that 10% (210) will attend capacity building activities. The number of female employees is only about 30% ? Fisheries: there are about 1,100 fishermen in place around Hurghada, all of them male. Their participation in stakeholder processes as well as capacity building activities is envisaged.

Part II. Project Justification

1a. Project Description

Changes between PIF and CEO

a. The proposed alternative scenario was modified as follows:

Special Feature	PIF	CEO	Justification
Components	Component 1: Strategic policy framework in place for a green recovery and sustainable growth of the tourism sector in Hurghada	Component 1: Strategic policy framework in place for a green recovery and sustainable growth of the tourism and other impact sectors in Hurghada	Sustainable management of the Hurghada environment also needs to take in the full range of key activities that impact on the ecosystem, not just tourism, but also fisheries, transport, energy etc.

Outcomes

Outcome 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

Outcome 1.2: Planning and management of marine and coastal PAs adjacent to Hurghada are enhanced (Northern Islands Red Sea PA).

Outcome 1.3: A suitable policy package is developed to enable and promote sustainability and green investments in the tourism sector

Outcome 1.4: Gender and youth mainstreaming are integrated into relevant strategies and policies

Outcome 1.1: The principles of mainstreaming biodiversity and sustainable natural resources and energy practices in tourism and related operations integrated in existing and future development policies, regulatory frameworks, management plans, green investments and programs aimed at reducing anthropogenic pressure on the ecosystems around Hurghada.

In general, the PIF included 4 Components, 12 Outcomes and 24 Outputs. The structure of the PIF design was more complex considering many outcomes. From a project design perspective, revision is made based on a preference of a system of hierarchy where a set of outcomes (ideally each outcome representing a particular barrier to be overcome) that collectively contribute to the project impact.

Specifically, in terms of Outcome 1.2 through 1.4 of the PIF this is collectively reflected in the GEF CEO Outcome 1.1. (slightly modified from PIF title) as it already covers planning and management (PIF Outcome 1.2) and policies for green investments (PIF Outcome 1.3). Keeping PIF Outcomes 1.2 and 1.3 as separate outcomes was repetitive of Outcome 1.1). In addition, PIF Outcome 1.4 on gender is a cross cutting theme and should be applied to all outputs of the project rather than be a separate and independent outcome or output.

<p>Outcome 2.1 Green economy investments de-risked and financing barriers removed</p> <p>Outcome 2.2 Establish the business case to enable the increased investment in nature infrastructure</p> <p>Outcome 2.3: Greenhouse gas emissions reduced and monitored</p>	<p>Outcome 2.1: Green economy investments are mainstreamed and de-risked to reduce biodiversity harmful practices and greenhouse gas emissions and make the business case for increased investments in nature-based infrastructure</p>	<p>As reflected in response to Outcome above, Outcome 2.1 of GEF CEO covers green economy investments (PIF 2.1); making the business case (PIF Outcome 2.2) and Green-house gas reduction (PIF Outcome 2.3). This avoids repetition</p>
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	<p>Outcome 3.1 Enhanced stakeholder capacities, awareness and partnerships influence behavior change towards sustainable tourism</p> <p>Outcome 3.2 Mainstreaming biodiversity conservation and climate action into income generating activities</p> <p>Outcome 3.3 Impacts from fisheries, boating, anchoring, diving and snorkeling on coral reef ecosystems in Northern Islands Red Sea PA decreased.</p> <p>Outcome 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)</p>	<p>Outcome 3.1. Enhanced stakeholder capacities, PA management, awareness, partnerships and sustainable financing influence behavior change towards reducing biodiversity and climate impacts and improving incomes</p>	<p>As reflected in response to Outcome above, Outcome 3.1 of GEF CEO now covers PIF Outcomes of 3.2 (incomes), 3.3 (BD impact reduction) and 3.4 (financing and PA management). This avoids repetition</p>
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<p>Outputs</p>	<p>1.1.1 Natural Capital Accounting (NCA) established, including clear baselines to guide the policy-making process and monitoring the condition 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)</p> <p>1.1.3 Guide future development plans, and nature-based solutions to integrate mitigation and offsetting policies 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</p>	<p>1.1.1. Strategic Environmental Assessment (SEA) principles established, including clear baselines to guide policy-making processes, and monitoring the condition of marine, coastal and terrestrial biodiversity in the Red Sea Governorate</p> <p>1.1.2. Institutional capacity and tools for application of natural capital assessment (NCA) developed and strengthened for application in tourism and other impact sectors in the Hurghada region</p> <p>1.1.3. Natural Capital Accounting (NCA) of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea</p>	<p>Based on the experience and capacity within the country and stakeholder consultations showed that the Government prefers using SEA (new Output 1.1.1 as replacement for PIF Output 1.1.3)) as a supportive means for guiding policy-making and monitoring environmental conditions in the area in consonance with improving capacity and skills for NCA work (new Output 1.1.2 for capacity development for NCA and new Outputs 1.1.3 and 1.1.4 on policy for natural resource management and promotion of green and circular investments)</p> <p>New Output 1.1.5 merges PIF Outputs 1.2.1, and 1.3.1 as these should be addressed in an integrated approach and to avoid a large number of Outputs for the project</p> <p>PIF Output 1.4.1 is cross cutting activities and already reflected in other relevant Outputs</p>
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	<p>activities, diving centers carrying capacity, boats sizes, economic alternatives, monitoring, boat radar system, law enforcement, etc.).</p> <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>	<p>Governorate to support improved policy decisions for tourism, energy, fisheries and transport sector</p> <p>1.1.4. Development of policy and regulatory framework to promote green and circular investments, renewable energy integration and mainstreaming biodiversity conservation and natural resource use measures to limit impacts on biodiversity, ecosystems and GHG emissions</p> <p>(e.g., Sustainable and Green Tourism Plan)</p> <p>1.1.5. Protected areas, marine resources(incl. coral reefs, seagrass beds and associated species)and land resources(mangroves, desert ecosystems and associated species) effectively managed through future development plans and nature-based management that integrate mitigation and offsetting policies based on the outcome of the NCA and supported by completed SEA focusing on the tourism?s (hotels, boats, diving centers) and fisheries, transport and energy impacts on the marine ecosystem and climate change</p>	
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<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>2.1.1. Climate-smart capital investment plan with a viable pipeline of investments across the energy and mobility sectors and nature-based solutions (NBS)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>2.1.2. Financial mechanism developed and submitted for government's approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity</p>
<p>2.1.3 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>2.1.3. TA to develop green investment projects in renewable energy, energy efficiency and e-mobility facilitated</p>
<p>2.2.1 Systematic integration of key biodiversity-friendly design principles, nature-based infrastructure (NBI) to manage natural ecosystems and touristic landscapes to generate value for society</p>	<p>2.1.4. GHG emission inventory developed for the tourism sector, and capacity in place for continued tracking and MRV</p>
<p>2.2.2 Create an effective management framework including a national certification scheme for nature-based/biodiversity-friendly tourism, in line</p>	<p>2.1.5. Systematic integration of key biodiversity-friendly design principles, NBS and their effective management including cooperation with and support programs for hotels and dive centers</p>
	<p>2.1.6. Green investments in renewable energy, energy efficiency and e-mobility implemented through risk mitigation instruments such as</p>

with a biodiversity and
tourism development
monitoring program

long-term incentives with
linkages to green recovery
stimulus packages

	<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> <p>3.2.2 Capacities developed for various community-based tourism activities, including women-owned businesses</p>	<p>3.1.1. Strengthening institutional capacity, communication and awareness tailored for governmental stakeholder and tourism, including sustaining the climate MRV system contribute to improved practices</p> <p>3.1.2. Participation and contribution in relevant global platforms: international and regional events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation)</p> <p>3.1.3. 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)</p> <p>3.1.4. Improved Protected Area management (including PA and visitor management plan, financial and business guidelines, monitoring programme) and community participation, and benefit sharing from conservation</p>	<p>Some modification in terminology for Outputs new 3.1.1 to capture capacity building and communication (incorporating PIF Outputs 3.1.1, 3.1.2, 3.2.1 and 3.2.2) to reduce number of Outputs to a manageable number.</p> <p>New Output 3.1.2 is PIF Output 3.1.3</p> <p>New Output 3..1.3 is PIF Output 3.3.2</p> <p>New Output 3.1.4 is PIF Output 3.4.1 and captures all PA activities mentioned in PIF</p>
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	<p>3.3.1 Establish a regional biodiversity steering committee to ensure that sustainable management of marine resources and fisheries is maintained</p> <p>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)</p> <p>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</p>		

b. The GHG were calculations fine-tuned after detailed assessment of the technology demonstration projects and further consultation with stakeholders and local experts during PPG.

c. The budget for component 1 is reduced after stakeholder consultation on ongoing policy initiatives. The amount is moved to technical assistance activities needed under Component 2.

(i) Global Environmental Problems

- 1. Egypt is a developing country, with a fast-growing population of about 101 million as of 2021 (CAPMAS, 2021[1]). About 95% of the population lives on only 4% of the total land area in the Nile Valley and Nile Delta. Demographics in Egypt are dominated by youth with a median age of 24 and 50% of the population is under 25 years old (CAPMAS, 2015). With an ambitious economic growth outlook, these demographics place considerable stresses on natural resources, employment, infrastructure, education, and health care.
 2. The tourism industry is one of the most important and fastest growing components of Egypt's economy which is predominantly based on entertainment tourism at the coastal areas. The number of international tourist arrivals to Egypt has been recovering in 2021 after weak years at the beginning of the 2010s and recent COVID-19 impacts.
 3. Tourism development potential is a major criterion behind the selection of new and expanded urban development areas in Egypt since the sector is prioritized by the Government to provide employment and economic growth for its growing population and attract resettlement. This is causing pressure on the scarce resources and environmental challenges that needs to be 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 as the Red Sea coast rely on the marine ecosystems, most notably healthy coral reefs for their business. The most pressing challenge in Hurghada is the biodiversity and environmental challenges caused by the tourism sector and tourism related activities due to increasing popularity of the touristic Red Sea destination.
 5. Climate change is expected to be a source of pressure on the coastal zones, due to impact of the sea level rise (SLR) and the recurrence of severe storms and extreme events (IDSC, 2011). This would negatively impact ecosystems, human health, the reliability and operating costs of water and sanitation infrastructure, and the country's economic activities in general.
 6. To ensure sustainable growth of tourism, environmental and climate considerations (e.g., clean energy generation and use, ecosystem and biodiversity management, fossil-free transportation systems, considering future climate change impacts, etc.) need to be integrated as a step towards ensuring low carbon, ecologically-sensitive and climate resilient ? but also economically sustainable ? development. Thus the project's objective is to mitigate GHG emissions and preserve biodiversity in the coastal area of Hurghada through mainstreaming climate smart technologies and biodiversity conservation practices in tourism, energy and transport infrastructure. 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, technology demonstration 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

GHG emissions

7. 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) CO₂eq. The breakdown by gas is 237.9 Mt CO₂eq from CO₂ emissions, 41.5 Mt CO₂eq. from CH₄ emissions, and 38.6 Mt CO₂eq from N₂O 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.

8. 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 CO₂eq emissions in the country.

CO₂ emissions by sector, Egypt 1990-2019

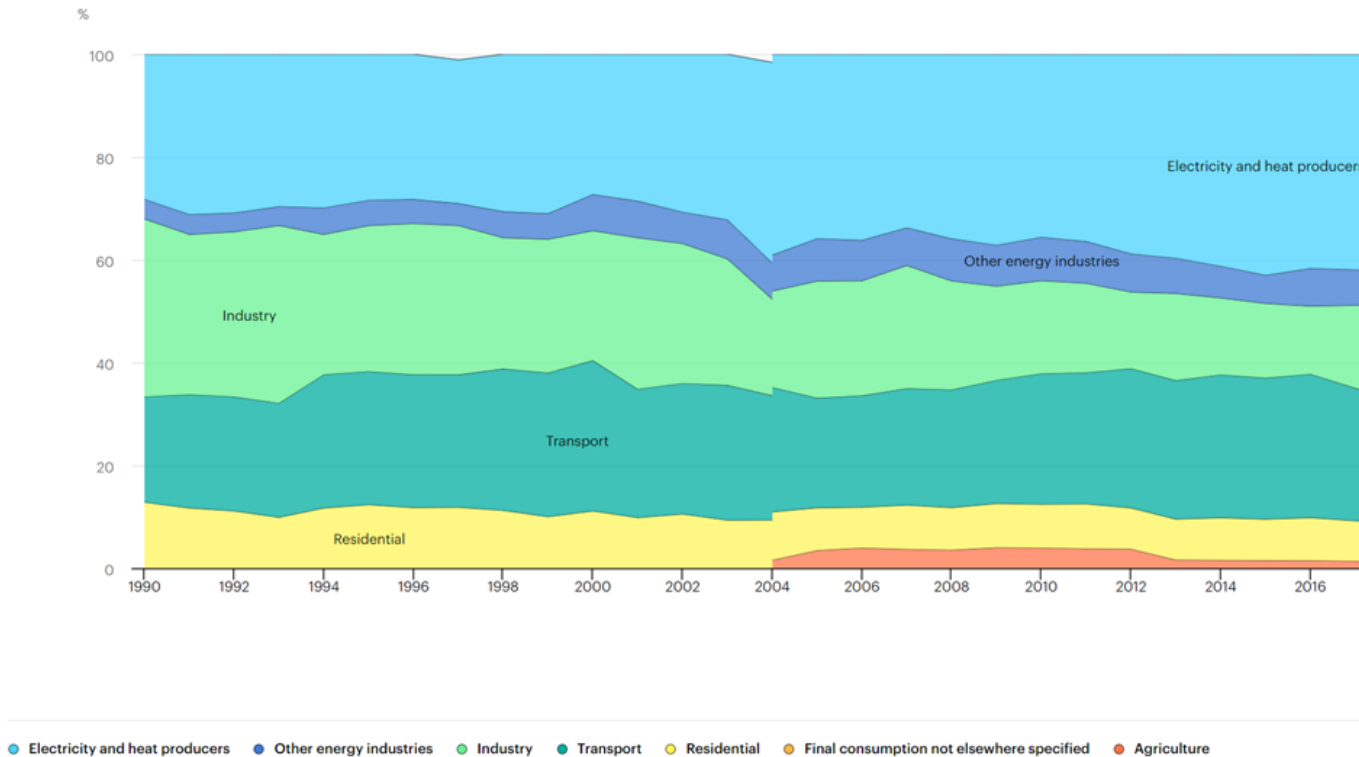


Figure 1: Emissions share per sector in Egypt (IEA, 2022)

9. 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 ktCO₂e/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.

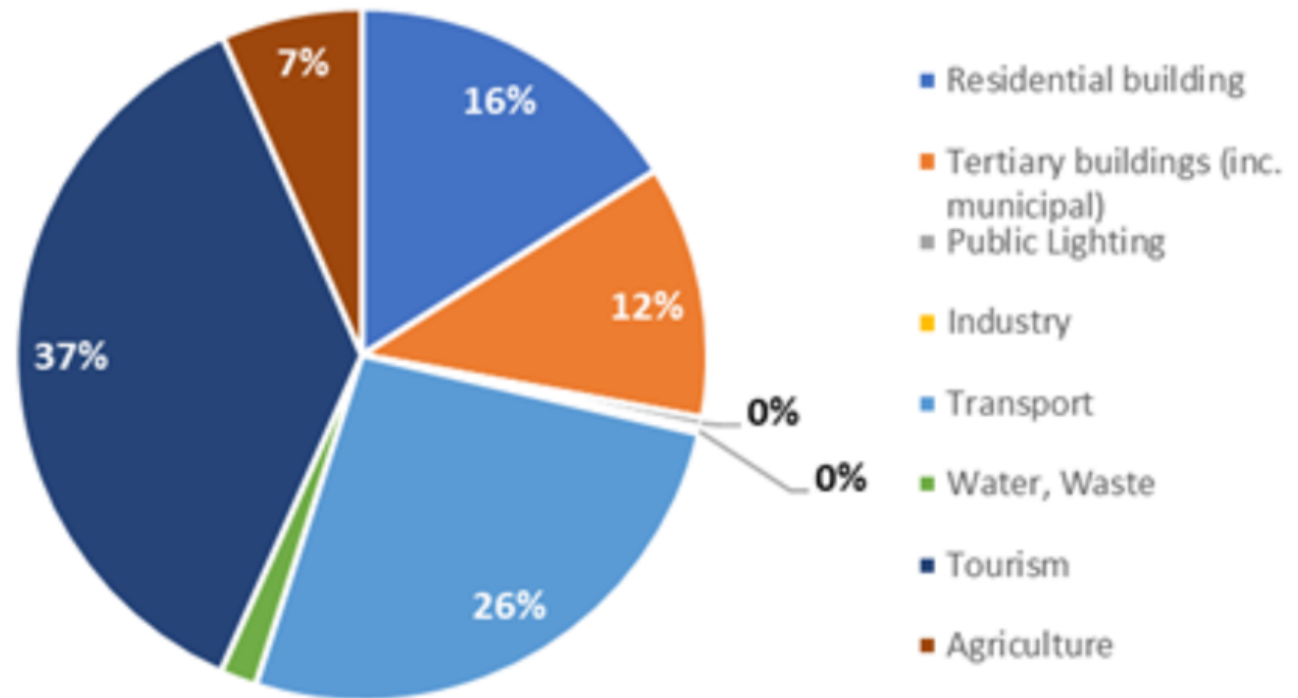


Figure 2: GHG Emissions per sector in Hurghada, 2015

Biodiversity:

10. Egypt has a unique biodiversity that contributes to its economy and supports human well-being and provides regulating and supporting services. It is the home of a wide variety of ecosystems, terrestrial and aquatic life forms, including marine, desert, mountains and wadis, and wetlands ecosystems. Despite being consistently arid or semi-arid, Egypt is a home to an extensive diversity of habitats, fauna, flora and microorganisms due to its very varied eco-zones and offers new opportunities for significant increases in national incomes as a direct result of the conservation of biodiversity. 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 protected areas, habitat restoration, and special land management schemes. As habitat destruction continues the monitoring of its impact on these endemic and endangered species becomes of increasing importance.

11. The challenges of rapid economic development need to be aligned to the growing awareness of the importance of conservation. Along the Red Sea Coast large scale development has already taken place. This development is unsustainable without the conservation of biodiversity in general and marine ecosystems in specific upon which tourism revenues are based. Unsustainable tourism

activities, as well as poorly managed urban planning and practices can have major harmful impacts on natural resources, including natural habitats, ecosystems and biodiversity, in and near urban areas and the coastal areas, but also within nearby Protected Areas (PAs). Pressures vary across the landscape in time and space: some areas only experience seasonal impacts; while other areas are currently not heavily impacted, there is no guarantee that they remain so in future.

12. Many tourism activities are dependent on environmental assets, such as beaches or coral reefs. Climate change is expected to alter many aspects of the natural and built environment, creating a range of indirect impacts for tourism, most of which are likely to be negative. Examples of indirect environmental impacts from climate change include biodiversity losses, loss of coral cover, reduced reef aesthetic, decreased fisheries production as well as a decline in ecosystem services such as coastal protection and beach replenishment.

13. Due to increasing demand for fish and shellfish, land and sea-based aquaculture is a growing industry in the Red Sea government. 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 the areas characterized by overfishing which directly impacts the health of the coral ecosystem in these areas. 55% of all coral reefs in the Red Sea suffers from overfishing (Burke et al., 2011).

Transportation & Mobility

14. Addressing transport sector fuel consumption and emissions is a priority among planners and policy makers in Egypt. With 11 million vehicles in Egypt, half of which are private cars, there is an urgency for planning alternative solutions within the Avoid-Shift-Improve framework of sustainable mobility. Introducing electric vehicles (EVs) is recognized as a promising contributor to the broad mix of solutions, but building local competences to develop plans, policies and action plans remains a key challenge[2]².

15. Safe air quality is a fundamental attribute of a sustainable city. In Egypt, diesel fuel is of hazardously low quality, with critically high Sulfur levels, represents a public health hazard, and it is coincidentally also a burden on the state budget as it is largely imported. It is a priority topic, and EVs are seen as a promising solution. However, with the abundance of natural gas in Egypt, and the already available experience in rolling out Compressed Natural Gas (CNG) vehicles, the move toward CNG is seen by public authorities as the more immediate viable alternative to diesel fuel, but considering the increase in demand, the CNG alternative will not have a significant impact, and diesel standards will remain the most effective solution.

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

Status of electric mobility in Egypt

17. In Egypt, electric cars less than three years old have been given a 100% exemption from customs duties, despite a countrywide ban on importing used vehicles since 2013. This ban was reinforced with a presidential decree on import tariffs in 2018. Pilot projects are underway for electric

buses in major cities. The Ministry of Military Production signed a partnership with Chinese automaker Foton Motors to produce 500 electric buses per year with at least 45% local components. Over the next four years, the partnership aims to produce 2000 electric buses. [3]³

18. Numerous indicators note that there is substantial commitment from public and private stakeholders in initiating the deployment of EVs in Egypt, whether in planned or ad hoc initiatives: Custom duty exemption for electric cars 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).

18.a. In December 2020, Egypt has already issued the licensing mechanism for EV when the Ministry of Transport issued a decision that recognizes the licensing of the new EVs based on its electric voltage and not on the motor equivalent of petrol engines. Also, the ministry of interior announced that the new licensing fees for EVs will be on a yearly or three years basis instead of the old tariff of monthly basis.

19. A ministerial committee comprising the Ministries of Military Production, Ministry of Public Business Sector, Ministry of Electricity and Renewable Energy (MoERE), Ministry of Trade and Industry is responsible for developing a vision for the expansion of electric cars in Egypt. Each Ministry has a specific role in such committee. The role of MoERE for example is to secure satisfying the electricity required for the charging stations. The Ministry of Public Business Sector is currently working on establishing a company in cooperation with a sovereign authority to establish 3,000 electric charging stations in 3 governorates as a first phase of the targeted plan to implement 42,000 stations in Egypt during the coming period. This is an important part of the country's strategy to localize the electric vehicle industry. The three governorates are Cairo, Alexandria and Qalyubia, and the stations can charge 6,000 cars at the same time. The implementation period is to be about 2 years. The investment cost to establish the 3,000 electric car charging stations is expected to reach 450 million pounds.

20. On the other hand, The Egyptian Electricity Regulatory Authority (EgyptERA) is currently finalizing the process of issuing regulations for the establishment of electric vehicle charging stations. This process has been developed in cooperation with the European Union.

21. Egypt's grid emission factor shall continue to decrease (i.e. cleaner electricity in terms of CO₂) due to planned 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.

22. 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 carshare 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.

23. A threat to prospects for electric three-wheelers is the current plans in Egypt to ban conventional tuktuks. Plans are underway to replace tuktuks with mini-vans (9-seat buses), with the intention to improve management and monitoring, which can be better enforced on minivans.

(ii) Root causes

24. 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. 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. 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 Red Sea coast.

25. Hurghada is one of a few locations of the best developed coral reefs in the Red Sea that has been targeted for coastal development (infrastructures and tourism) that led to rapid tourism growth beginning in the late 1980s (Gladstone et al. 2013). Kotb et al. (2008) reported an increase in the number of hotel rooms in Hurghada from a few hundred in 1989 to 35,000 in 2004. In 2016, Hurghada was ranked the 2nd highest touristic destination in Egypt next to Sharm El-Sheikh with 46,672 rooms that represented 26% of the total number of hotel rooms in Egypt. Actual numbers from 2021/2022 estimate the number of rooms went down slightly to about 42,000 rooms (and ~ 80,000 beds).

26. 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.

27. The direct threats to biodiversity include:

? Increased number of diving boats (daily trips and safari boats) in the attractive diving areas, with high concentration of divers and turbulences

? 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.

? 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.

28. The indirect threats to biodiversity include:

? 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.

? 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.

? 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.

? The growing volume of tourism and maritime activities cause air pollution and biodiversity loss due to solid and organic waste, as well as increasing 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.

29. 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.

30. 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.

31. Maritime transport is a major source of negative environmental impacts, yet daily and safari boats are important means to transport tourists to the diving centers and excursion points along the coast. There are roughly 2,000 boats (yachts, and fisher boats) and 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 biodiversity and at the same time avoiding the anthropogenic noise pollution, thus safeguarding the marine ecosystems. In addition to their climate advantages, electric boats have low levels of noise and vibration.

32. Anthropogenic noise is now globally recognized as a stressor, directly or indirectly impacting biodiversity and, as such, the push to minimize its production is growing. 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. Replacing diesel boats with electric boats has the potential of reducing anthropogenic noise pollution, thus safeguarding the marine ecosystems.

33. 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 in the near future.

(iii) Barriers

34. While there are many challenges facing Egypt with respect to management of its natural resources and meeting the economic needs of its tourism sector, the long-term solution is constrained by a number of factors. The key barriers that need to be addressed for conservation of biodiversity and natural endowments and ensuring a sustainable tourism at Hurghada are:

35. Barrier 1. Lack of capacity to mainstream Natural Capital Assessment (NCA) into tourism sector long-term policies and practices: Egypt has had a high level of political commitment to support sustainable tourism development in the Red Sea and recognizes that maintaining its natural capital is critical for sustaining tourism growth. However, despite this recognition, there seems to be limited capacity and awareness of the complex inter-relationship between nature, tourism businesses and the global economy and how management of this delicate relationships can protect and enhance the health of the tourism and economic well-being of the country. At its heart, what this comes down to is an ability to make robust and informed long-term decisions based on an improved understanding of the value of the natural resources to the tourism sector. However, despite this political commitment to support sustainable tourism development, efforts to integrate National Capital Assessment (NCA) into economic and social tourism development planning and broaden the capacity of the NCA service in the country, has not received much traction and been translated into an effective accounting program. While the knowledge and skills of people producing accounts in Egypt has somewhat increased in recent times (largely within NGOs and technical institutions), there are challenges in enhancing capacity and interest in the political institutions. This is further constrained by limited previous experience in NCA, limited local expertise and a limited availability of international expertise and obtaining basic and reliable data for decision-making. The capacity to integrate natural capital into national accounting systems remains limited and budget allocation is not adequate to equip fully the agencies dealing with environmental issues and biodiversity conservation. Needed is a clear vision, continued commitment and support to accounts managers along with substantial and improved environmental information. Building adequate national capacity would be a long-term effort with a clear roadmap (that could emanate from the work at Hurghada) to provide the vision for tourism sector in Egypt, given its importance to the economy of the country. Coupled, with this would necessitate access to regional capacity, south-south learning and networking, which Egypt will be able to participate, build capacity and share experiences.

36. Barrier 2. Limited technical capacity, tools and incentives to promote robust planning in sustainable and integrated management of energy use, resource efficiency and green certification in the tourism sector: Sustainable and greening in the tourism sector is as complex as the endogenous heterogeneity and therefore requires the multi-stakeholder approach for its success, that integrates the hotel sector, service sector, construction sector and financial sector. However, in Hurghada, the tourism sector is constrained by the lack of sustainability incentives for tourism accommodations, tour operations and transport that link tourism products with market positions. Destination planning could advance green goals (some of which are already operational in Egypt, including ?Green Star Hotel?, ?Green Fins?) that are reinforced by laws and regulations and based on sound scientific methods and tools encompassing economic, environmental and social approaches. Constraints to investing towards energy efficiency measures have led to heavily subsidized fossil energy and electricity prices. While there is a strong signal from the Government to increase energy prices as part of a wider plan to reduce its subsidies towards fossil fuels (mainly electricity and natural gas, but also water), this would require lending schemes specific to renewable energy projects that would 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. Fiscal policies including tax breaks, concessions and pricing are also important to provide clear signals to investors on the government?s intentions in the sector and provide drive. ?Green financing? needs to be made accessible for investments in tourism in order to stimulate sustainable development within the industry. Barriers to financial access should be softened by engaging banks and financiers on green tourism investment as well as providing regional funds through international partners. Local investment can be strengthened by enhancing the tourism value through mainstreaming sustainability.

37. Barrier 3: The Red Sea has become one of Egypt's premier tourism designations, largely due to its unique -but fragile- marine environment. In recent years, tourism development has come increasingly into conflict with the protection and conservation of the Red Sea's natural resources. This is further constrained by the lack of effective mechanisms for reducing ecological impacts of tourism and other activities (e.g., fishing, navigation, etc.) on the biodiversity of the Red Sea ecosystem, both within the existing PAs and the marine environment outside of the PAs. This includes the lack of, and implementation of zoning for environmentally sensitive areas and the development and dissemination of environmentally sound practices for the tourism sector from design to operational phases. In particular, this will include the need for development plans and standards for the Red Sea Region, including in this case particularly for the Hurghada Region, the introduction of regulations and environmental management standards for tourism, including infrastructure constructions and operations hotels and resorts, diving and water recreation, development of standardized EIA screening forms for coastal development and promotion of best practices for energy, water, sanitation and landscaping. Additionally, lacking is a computerized decision and information support system to strengthen regional tourism planning and environmental management capacities. In particular, this will require that all planning, design and development activities take place with active cooperation of all interested parties, including the private sector and other stakeholders. Furthermore, there is absence of proper criteria for defining critical habitats. While the Northern Islands PA allows some level of fishing and tourism, but the intensity and impacts of tourism and fisheries have not been quantified in terms of their impacts on the ecology and biology of Red Sea resources. The law enforcement mechanisms for PAs and areas outside PAs are also unsatisfactory. The reliance on the utility of the Government-funded MPAs as the principal conservation mechanism to protect the ecology of the Red Sea can be questioned considering the limitations of MPAs when regulatory compliance and community support may not be fully realized, requiring agencies to improve MPA governance for providing greater protection to the ecological resources while minimizing impacts on local fishing and tourism revenues. In the case of areas outside of MPAs, zoning and protection mechanisms and their effective implementation and enforcement are important for not only protection of the ecology of the Red Sea, but also the faunas around the region.

38. Barrier 4: Lack of institutional coordination across a multitude of agencies and interests that operate in the Hurghada area: There is a weak inter-institutional exchange and coordination considering integrated land and sea 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).

2) The baseline scenario and any associated baseline projects;

Project target areas

39. 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. 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].

40. 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)

41. 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.

42. 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.

43. 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.

44. 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.

Energy consumption

45. Egypt meets around 95% of its total primary energy demand in 2019 from fossil fuels (mainly natural gas and petroleum products). The share of renewables in the total supply are as low as hydropower (1.2%), biofuels and waste (3.5%), wind and solar (0.5%) (derived from IEA, 2022). [4]⁴

46. Even though they still have shares in the overall energy supply, electricity generation from solar energy has increased 9-folds and between 2015 and 2019. Wind power generation is increase 1.5 folds during the same period (IEA, 2022).

47. 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. In 2014, the Ministry of Electricity announced a five-year program (FY 2014/2015 - FY 2018/2019) to eliminate energy subsidies entirely and encourage rationalization. This is not limited to price reform, but includes actions to improve energy efficiency, enable alternative energy sources, and promoting the transition to clean and renewable energy. The '20/20' initiative, originally established had set a target of 37% renewable energy share by 2035. In the same year, 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. 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%).

48. Until recently, Egypt was a self-sufficient energy consumer, meeting its energy needs through local production. However, this has been reversed by the growing energy demand, encouraged by heavy energy subsidies, which has put increasing pressure on available fuel supplies and inflating the budget deficit along with it. In 2013/2014, the energy subsidies bill amounted to EGP 120 billion, representing a 19% compound annual growth rate since 2010. This is an acute increase from only EGP 1 billion 20 years ago. Energy subsidy constitutes 7% GDP (CAPMAS, 2015).

49. 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. Natural gas shortages and electricity blackouts continued throughout 2013 and 2014, and reached a critical stage during the summer of 2014, where the power generation deficit reached a maximum 5,300 megawatts, corresponding to around one eighth of Egypt's installed energy capacity (IFC, 2016). This setback not only affected the local economy, but also reduced export, which had a direct effect on foreign currency shortages. Egypt, once a net exporter, had become an importer of natural gas.

50. The Government of Egypt (GoE) has taken bold steps to adopt an energy diversification strategy with increased development of renewable energy and implementation of energy efficiency, including assertive rehabilitation and maintenance programs in the power sector. Egypt has developed and adopted the Integrated Sustainable Energy Strategy (ISES) 2015 ? 2035, which provides an ambitious 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.

51. The GoE issued the Renewable Energy Law (Decree Law 203/2014) to support the creation of a favorable economic environment for a significant increase in renewable energy investment in the

country. The law sets the legal basis for the Build, Own, and Operate (BOO) scheme to be implemented. Through the BOO mechanism, the Egyptian Electricity Transmission Company (EETC) invites private investors to submit their offers for solar and wind development projects, for specific capacities and award the bidder with the lowest kilowatt-hour (kWh) price. In addition, the GoE through the New and Renewable Energy Authority (NREA) provides the land for the investors.

Transport & Mobility

52. There are 11 million licensed vehicles in Egypt, almost half of which are private cars and a third are motorcycles (exceeding 3.5 million)[5]⁵. Congestion, air pollution, and severe lack of public space in its cities are among the main challenges of sustainability.

53. EGP 59 bn had been allocated to subsidize petroleum products in FY 2019/2020, highlighting the substantial fiscal burden of fuel consumption that still remain[6]⁶. However, a continuous withdrawal of subsidy levels is underway as part of Egypt's reform policies and is felt in the steady increases in fuel prices. This is implemented in tandem with scaling up other more effective social protection programs. Diesel fuel (?Soular?) in specific is a higher burden than gasoline as it remains largely imported. Programs to move from diesel to natural gas fuelled vehicles are in process. However, the rate of increase in overall fuel consumption may overshadow such measures of reducing dependence on diesel fuel.

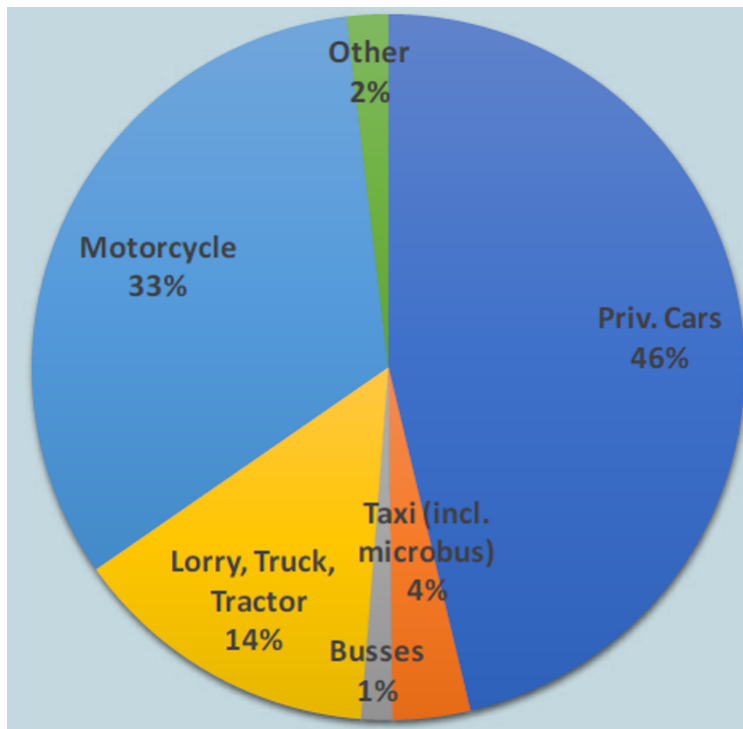


Figure 3: Share of Transportation Means in Egypt (CAPMAS, 2019)

54. With regards to quality, gasoline is approaching European standards for fuels, while diesel is yet far from such targets, having a hazardous sulfur content of 2,600 ppm rather than the common level

of 50 ppm^[7]. In the meantime, air quality has been estimated by the World Bank to cost Egypt EGP 3.3-9.6 bn (up to 3.2% of GDP) in environmental and health damage^[8]. Consequent impact on tourism is also substantial.

55. Among the challenges of sustainability in Egyptian cities is the battle for public space and the rapid encroachment of cars over public spaces. This is especially of concern due to the lax enforcement of traffic regulations. Through people-centric urban design (rather than car-centric), combined with adequate public transport and Travel Demand Management (TDM) measures to reduce car-dependence, public spaces can be conserved and equitably distributed among road users including promotion of walking and cycling. A cultural shift away from ownership and towards shared use is thereby encouraged, reducing the footprint of vehicles in the city.

56. In response to the escalating environmental impact of Gasoline and Diesel-powered vehicles, the alternatives of electric vehicle (EV) technologies are rapidly proving themselves as viable cleaner alternatives. Hybrid Electric Vehicles (HEV) combine both the traditional Internal Combustion Engine (ICE) and an electric propulsion system in various configurations to improve the overall fuel economy of the vehicle.

57. The policy environment in Egypt is yet under development to accommodate nation-wide rollout of EVs, but there are a number of key strengths that may provide a stepping stone for a larger framework of action; there is already custom duty exemption in place for electric cars and regulations allowing imports of used cars, and secondly, with regards to institutional experience, there is an accumulation of know-how and experience in vehicle replacement programs initiated by EEAA that can be tailored to serve replacement programs for EVs. However, following the initial phase of ad hoc policies and initiatives, the private sector players demand the development and disclosure of a clear government strategy for EVs; covering plans for stimulating the market, enabling industrial production and innovation, planning infrastructure, setting tariffs, etc. This is to remove the prevailing uncertainty in policies and regulations and enable private stakeholders to invest in developing the sector.

58. Infinity Company is one of the leading private sector companies working on developing charging stations in Egypt. The current stations are about 70 (equivalent to about 240 charging points) and they are distributed all over Egypt, with most of them in Cairo. The following figure presents the locations of such stations. It is important to underline that no charging stations have been established so far in Hurghada or surroundings of the city. A balanced geographic coverage of charging points in a country is necessary for the uptake of electric mobility.

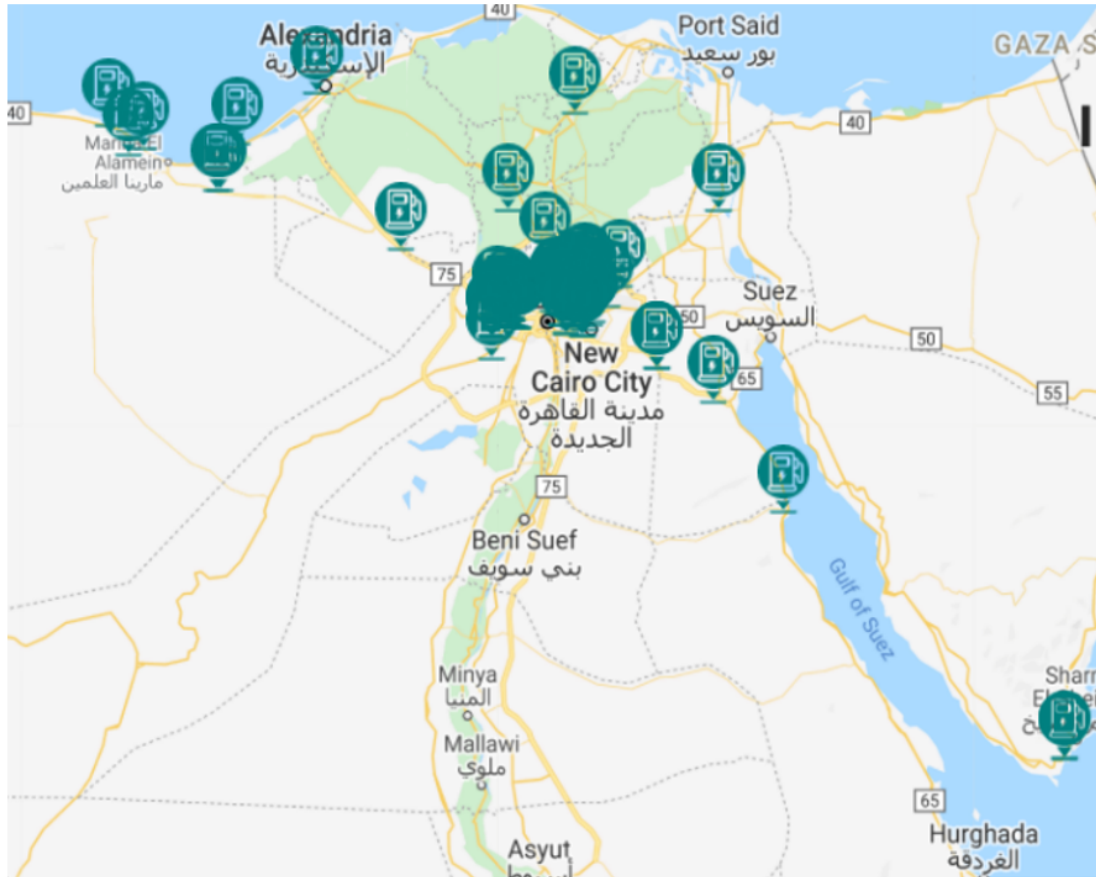


Figure 4: EV Charging Stations operated by Infinity

59. All Infinity charging stations can charge at least 2 electric vehicles simultaneously, while some others allow charging up to 6 vehicles. Stations are equipped with double-socket 22 kW-AC-chargers and fast-charging DC chargers in major stations. The output can accordingly reach 50 kW the can charge the car up to 125 km in 30 minutes. All stations confine to EU standards and use Type 2 charger cables. The user can also use an adapter cable to connect to the charging station.

60. Other players: the largest charging station for electric cars in Egypt was inaugurated by MB for Engineering, in cooperation with Wataniya Petroleum. The station's capacity exceeds 330 kilowatt-hours, and it can accommodate 14 cars at the same time, according to the company's statement. [9]⁹ [10]¹⁰ MB for Engineering intends to cover 5 governorates during the first half of 2022, and it will apply to EgyptERA to issue an operator license.

Maritime Transport

61. Just as electric vehicles are increasingly common on highways, electric and hybrid boats are beginning to make a ripple on cruising grounds across different continents. Electric remains yet a small but growing niche in boating. The market includes on-water and underwater electric vehicles for inland waterways and the sea.

61.a. 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.

61.b. The electrification of boats are globally getting popular due to increasing production volume of electric motors, steadily reducing battery costs and new technologies. The widespread adoption of e-boats is expected to follow up the momentum of electrification of road vehicles 3-5 years behind. Egypt needs to catch up with this trend considering almost all of its urban areas located along the Nile and coastline of Red Sea and Mediterranean Sea. The project will speed up this shift through on-site technology demonstration and dissemination of investment information along with environmental benefits.

62. Additional positive prospect 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 Bloomberg NEF (BNEF)[16].

62.a. Electric propulsion systems are highly reliable and proven technology. The reason for this is the simplicity of an electric motor linked to a marine electric management system. Simply put, the electric system has four moving parts, whilst on average a combustion engine has over 2000 parts. Available standard AC charging systems can charge with about 100 kW system a 100 kWh battery in about one hour, if there is an AC outlet big enough to support the onboard charger. Whilst a DC supercharging 300kW system can be charged in less than 30 minutes. The major benefits of electric propulsion are low noise and zero air/water emissions, at low operating costs compared to conventional diesel propulsion systems.

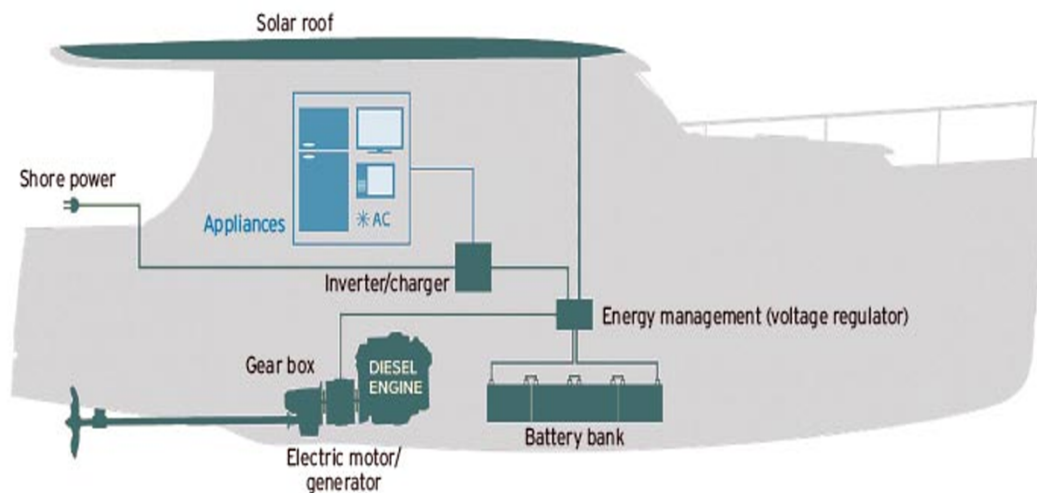


Figure 5: Greenline Yachts Are Built With Either E-Drive (All Electric) Or This Hybrid H-Drive System

62.b. 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.

The hybrid model can ensure diesel engines run for as little time as possible, and at more optimal fuel-efficient loads points when they do.

63. The hybrid solution combines an electric motor and combustion engine to propel a boat through the water, allows to cruise quietly. As with cars, there are two common types: parallel and serial. A serial hybrid uses a generator to power a large electric motor connected to the drive shaft. Once the batteries have drawn down, range can be extended by using an electric generator to power propulsion. Such option might be considered for daily diving boats in the Red Sea, while combining the conventional diesel propulsion in the general cruising mode, and electric propulsion when approaching the coral reefs, diving sites or other sensitive areas (e.g. for dolphin watching).



Figure 6: Suez Canal Passenger/Car Ferries

63.a. The Arab Academy of Sciences has published in 2021 a study to present renewable energy sources for ship propulsion in Egypt. Renewable solar energy and electric storage systems are in the short to medium term the beneficial solution to achieve a major target of the decarbonisation of the maritime transport. In a demonstration project, a conversion of 35 Suez Canal car/passenger ferries is being assessed to use photovoltaic (PV) solar panels combined with a battery bank instead of conventional propulsion system. The ferries are operating between Port Fouad and Port Said. The proposed propulsion system of the car/passenger ferries consist of electric output power from PV solar panels in conjunction with an appropriate battery bank system combined with charge shore connection. The results of the study indicate that the ship power generation using PV system is appropriate for long term investments, and therefore further options for demonstration should be sought.

63.b. During the PPG, it has been assessed that integrated hybrid electric solution is financially more feasible to avoid GHG emissions and promote the shift to low-carbon maritime transportation.

64. The most feasible option is to provide maneuvering power via a separate electric propulsion system (e.g., via thrusters or telescopic electric drive options) and provide house loads (i.e., auxiliary loads) through lithium-ion batteries. The boats will switch from full-diesel to electric propulsion when mooring, approaching the coral reefs, diving sites or sensitive areas (e.g. for dolphin watching), in the port to reduce their diesel consumption and noise. 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 and of course reducing GHG emissions through avoiding diesel. The smaller battery size also allows it to be more easily isolated from liveaboard areas, safety-wise, etc. The technology is also well proven.

64.a. In addition, the project will select a strategic location for the charging station (e.g., in the port of Hurghada) allowing both EVs and maritime vehicles to benefit from.

64.b. The hybrid e-boats have relatively low GHG emissions reduction cost. The emission avoidance cost of hybrid electric boat varies between 200 - 470 USD/tCO₂ direct emissions. As for land transportation, the assumption of fully electrified taxis, the avoidance cost is calculated as 360 USD/tCO₂. So they are in similar ranges, although they are still expensive technologies, the project will incentivize the investment cost and provide technical assistance to target this challenge. Without incentives, the rough estimation on payback period is currently not interesting (15+ years). Around 40% from the GEF financial support will bring down the simple payback period to between 7-15 years which is feasible -though still not commercial level-, for technology demonstration projects considering that the long operation lifetime of the boats (>20 years) and increasing fossil fuel price trends.

64.c. There are more than 1000 boats in Hurghada and Sharm el-Sheikh combined. It shows a significant potential for scaling-up in other cities in the Red Sea or Mediterranean coastal cities (e.g., Alexandria).

64.d. The other 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

Baseline Policy ? Country and Governorate Level

65.a. Egypt's Green Economy Strategy 2030 serves as the national sustainable development strategy. 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.

65.b. The Governorate of the Red Sea has a strategy to make Hurghada a "Green City", and in the long-term a carbon neutral city. 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.

65.c.

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.

65.d.

The Government has established a number of projects to address challenges related to biodiversity conservation^[17]. 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.

65.e. The Ministry of Environment has also developed biodiversity conservation policies through:

- ? Reducing the negative impacts of different sectoral policies (land-use planning, transport, energy, uncontrolled urbanization, etc.) on in particular 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.

65.f. 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.

65.g. 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

Baseline projects

66. 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).

67. 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)" 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.

68. The UNDP-GEF 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 (SESDDS) 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.

69. The Project will 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.

70. The UNDP-GEF Project "Mainstreaming the Conservation and Sustainable Use of biodiversity into Tourism Development and Operations in Threatened Ecosystems in Egypt (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. The project's outputs will 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. The MBDT was undertaken in the Southern Red Sea and did not cover the Hurghada Region (Northern Red Sea). The SEA developed under the GEF5 project, however, will provide key lessons and guidance for conduct of the SEA for the Northern Red Sea, particularly, in terms of the methodology, timing and scope of the exercise. It will provide the tools and procedures for scoping of alternatives to maintaining a "business as usual" and approaches to scenario planning. It will also shed light on the best methods for consultation and stakeholder participation as well as criteria for zoning of

the area for different development and conservation activities with a focus on tourism. This GEF 7 project will build on this learning and further extend the scope of the SEA to also include fisheries and transport, in addition to the main focus on tourism. In addition, the GEF 5 project also provides useful lessons through the Green Fins program that lays out a 15 points code of conduct to standardized operations for environmental friendly diving and snorkeling in the Red Sea that would also be ideally applicable to the Hurghada Region. The Green Fin guidelines provides recommendations for replication in terms of best practices/criteria for waste and sewage management and battery disposal from boats. It provides guidance for zoning and management recommendations to protect corals, seagrass beds and key biodiversity, mooring regulations and sustainable practices, patrolling and enforcement and management of illegal fishing that would be suitable to be applied in Hurghada as well. Furthermore, the comparative analysis of hotel business models or responsible grading practices in terms of their environmental impacts (e.g., energy, transportation) for different categories of tourism facilities (ecolodges, ecofriendly hotels, Green Star Hotels and Mass tourism facilities) that will provide key lessons for the GEF 7 project. When completed the Biodiversity Offset Study and the integration of biodiversity considerations into the EIA process can be applied to new developments in Hurghada or (to the extend feasible), the retrofit into existing developments.

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

72. **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:

? HEPCA implements and maintains sustainable mooring lines around the coral reefs to be used for tour boats

? 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.

? 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.

73. **Green Value Chain (GVC)** credit line 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).

74. **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 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.

75. Based on the initial consultations conducted with the CBE, the hotels and other tourism enterprises in Hurgada are eligible to use CBE financing. It also supports greening investments as a part of the overall rehabilitation program of touristic infrastructures, including renewal of hotels and transportation fleets. The project will work towards linking 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 inception of the project implementation further engagement will take place with the CBE to investigate the criteria and the details of the application processes and recommended models. The CBE initiative in 2021 has reported relatively low uptake rates; it is therefore expected to be ongoing over the next years and is expected to contribute to the recovery of the tourism sector in Egypt.

Additional initiatives identified during the PPG:

76. **CBE Tourism Initiative.** The Central Bank of Egypt (CBE), along with the banking sector as a whole, plays a pioneering role to support the national economy and develop and revitalize the various economic sectors. Given the importance of the tourism sector as one of the pillars of the economy, as it is considered a major contributor to national income and a major source of foreign currency, and given the current circumstances and the crisis that the tourism sector is facing, The CBE has decided to put in place a mechanism to contain this crisis and direct the banks to handle it. In light of this, in its efforts to contain the tourism sector crisis, The CBE issued an initiative to support the tourism sector (including, residence hotels and tourism projects (excluding those established for sale), travel, reservation and tour services and agencies, tourist land transport, restaurants, beverages and recreational activities in the tourist areas)

77. This initiative has the following terms:

? Availability of 50 billion EGP through banks at a rate of return of 10% (simple diminishing return).

? The purpose of the financing is to carry out the necessary replacement and renewal operations for residence hotels, floating hotels and tourist transport fleets.

? The term of the loan is 15 years as a maximum, according to the credit study of the bank and the cash flows of clients.

? The possibility of irregular clients benefiting from the aforementioned initiative, according to the bank's vision and based on the credit study prepared for each client, taking into account that the initiative does not apply to clients of the absolute ban.

? The bank finances a maximum of 75% of the total replacement and renewal cost, provided that the client bears the remaining percentage while paying the client's share in proportion to the bank's share based on the bank's study of the cash flows provided by the client.

? Conformity of the replacement and renewal process with the standards and specifications issued by the Ministry of Tourism.

? The necessity for the bank to obtain the technical studies (including the feasibility study) conducted by the company, with the help of the bank with a specialized advisory body to ensure the feasibility of the project, follow-up implementation, and approve the percentages of completion so that the withdrawal of financing is in return for extracts in line with these percentages.

? The amounts granted under this initiative shall not be used to repay credit facilities based on the client and confirm that they are used for the purpose for which they were granted.

? Compensation for the return rate difference is made every 3 months on the basis of the following: Credit and Discount Rate + 2% - 10%

78. The last amendment regarding the tourism initiative to finance the replacement and renewal of hotels and transport fleets (diminishing rate of return 8%) was issued in May 19th, 2021, including amending some clauses as follows:

? The bank finances a maximum of 90% (instead of 75%) of the total replacement and renewal cost, provided that the client bears the remaining percentage while paying the client's share in proportion to the bank's share based on the bank's study of the client's future cash flows.

? The credit risk guarantee company guarantees 70% (instead of 60%) of the credit risks of the granted facilities, provided that the banks bear 30% (instead of 40%) before asking the company to release the guarantee.

79. This initiative immensely supports the tourism sector to flourish despite the economic constraints, especially with the Covid-19 situation hindering the progress of various sectors including the tourism sector. Although no clause was mentioned about sustainability-related developments in the initiative's official documents received by the consultant, there is a significant potential for Greening Hurghada Project to benefit from the financial support provided under the umbrella of this initiative. In the virtual meeting with the CBE's representative, he mentioned that the bank is willing to finance projects for greening Hurghada, especially that the initiative is only 10-15% utilized as per his estimates. In principle, the CBE is willing to support the project and is looking forward for further cooperation. Thus, this initiative has a huge potential to significantly complement the project's co-financing.

80. **Dolphin Watch Alliance Research and Conservation Project**^[11]¹¹. The booming tourist industry in Hurghada has now been in full swing for some years. A popular tourist attraction in the area is the commercially marketed "Swimming with wild dolphins", an experience offered by a variety of agencies in the area. Research results have shown that in certain reefs, dolphins prefer to rest. These resting places are abused by various vendors to bring the dolphins to the people by pursuing them with their boats all day. It is imperative that appropriate policies are created and enforced in order to prevent long-term negative consequences for the dolphins' health. By conducting both over-and underwater research, the project "Dolphin Watch Research Project" is trying to gain new insights into the behaviour of dolphins as to be able to set up necessary protection zones at certain locations in the Red Sea. In addition, the alliance has developed a conservation awareness and environmental education programme that informs locals, residents and tourists about the needs of bottlenose dolphins from the Hurghada area, Red Sea. Furthermore, the alliance has developed together with the governmental authorities and environmental NGOs a Code of Conduct for Boats and their operators to conserve the dolphin populations across the Northern Red Sea.

81. **The Chamber of Diving and Watersports (CDWS)** in collaboration with the Dolphin Watch Alliance are in the process of creating a dolphin awareness training course for snorkel and dive guide professionals. This will include a Code of Conduct for snorkeling and diving with dolphins and boat management section. The awareness sessions will begin as optional for the professionals and with time will become obligatory for all professionals working with dolphins. The CDWS will need time to prepare the internal logistics of making this session obligatory, which is why it is planned to offer these courses as optional as of summer 2022.

82. a. **Green Fins** is a proven conservation management approach ? implemented internationally by The Reef-World Foundation and the UN Environment Programme ? which leads to a measurable reduction in the negative environmental impacts associated with marine tourism. It aims to protect coral reefs through environmentally friendly guidelines promoting sustainable diving and snorkeling. It provides the only internationally recognised environmental standards for marine tourism and its robust assessment system measures compliance. Green Fins encourages and empowers divers, snorkelers, the diving industry and coastal communities to reduce the pressures on coral reefs by offering marine tourism companies practical, low-cost alternatives to harmful practices ? such as anchoring, fish feeding and chemical pollution ? as well as providing strategic training, support and resources. In Egypt, CDWS in cooperation with the Ministry of Environment offers Green Fins trainings and certifications of diving operators and guides in the South Sinai (mainly Sharm el Sheikh and Dahab) and Red Sea Governorates (so far only in the South in Marsa Allam). According to latest information from CDWS (March 2022) no members are found yet in Hurghada, which could be changed with the support of the Greening Hurghada project (please see Output 3.1.3.).

82. b. **Green Star Hotel Certification Program** is a national certification program of the Ministry of Tourism to support project projects and resorts to improve performance responsibility and social standards. The aim of this national program that will be further promoted in Hurghada aims at (i) improving environmental landscapes of tourism destinations; (ii) conserving biodiversity of marine life; (iii) reducing hotel energy and water consumption; using renewable energy and (v) ensuring that waste is properly handled and treated

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

83. The objective of the project 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 transportation 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 urban development and planning with strengthened capacities and financial mechanisms.

84. ?Greening Hurghada? Project will demonstrate the benefits of shift to low-carbon technologies (e.g., sustainable energy use in hotels, e-boats,) and active integration of biodiversity aspects and sustainable natural resource use into planning policy, planning and guidelines on eliminating the drivers of biodiversity degradation and the pressure on the local environment besides reducing carbon emissions. The interventions will be upscaled to a broader level with policy frameworks and capacity building on sustainable tourism and biodiversity preservation, addressing the following interventions:

? Improve the management of key touristic destinations and sites to promote sustainable tourism practices and investments prioritized towards the three dimensions of sustainability (ecological-economical-social);

? Optimize the energy and resource use in hotels resulting in climate change and air/water pollution mitigation through a dedicated TA programme and pipeline for investments;

? Reduce emissions within the land and maritime transportation infrastructure and therefore their adverse impact on biodiversity incorporated into policy and strategy development, including a strategic environmental assessment;

? Mainstream biodiversity conservation and climate action into income generating activities (incl. those for local communities);

? Introduce long-term financing schemes supporting the COVID-19 recovery plan linked to financial support mechanisms that would drive climate resilient investments in the future.

85. 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. There are a number synergies and lessons to be developed and shared with other coastal cities in Egypt, and in the region to showcase the environmental and economic benefits of integrating circular practices.

86. The best replicable solutions will create a source of practical knowledge towards increasing sustainability of the tourism sector as well as conservation of biodiversity in the MENA and Mediterranean region and around the globe.

87. For the full list of components, outcomes, outputs and proposed activities see below, and refer also to Annex A: Project Results Framework.

COMPONENT 1. STRATEGIC POLICY FRAMEWORK IN PLACE FOR A GREEN RECOVERY AND SUSTAINABLE GROWTH OF THE TOURISM AND OTHER IMPACT SECTORS IN HURGHADA

88. This component will address the barrier (lack of capacity, demonstrated knowledge and awareness on sustainable tourism activities) through a set of activities that will enhance the foundation and capacity for implementation of a Roadmap for the sustainable tourism development of the Hurghada region of the Red Sea and enhance policy making for improved biodiversity conservation, tourism development planning and protected area management through the use of Strategic Environmental Assessment (SEA), that will build on the lessons-learned and methodology of the SEA conducted for the Southern Red Sea under the GEF 5 project, and National Capital Assessment (NCA)-generated indicators in development and tourism policy, planning and resource allocation. The Project will support undertaking of a 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. This will help 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 this exercise 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 the SEAs is to inform planning and provide the framework for avoidance, mitigation and any future offsetting mechanism, while the NCA that will complement the SEA will be applied to provide pilot accounts required for the policy and economic scenario analysis of tourism development in Hurghada. This component will also provide capacity building initiatives and the development of the regulatory frameworks, guidelines and environmental impacts assessment necessary to support the process of creating a green recovery, sustainable energy integration, low-carbon transportation and sustainable tourism development.

89. The relevant policymakers and private sector representatives will participate in review and revision at different policy drafting stages through stakeholder workshops before the validation of the final draft to have quality built-in during the drafting stage. UNIDO through PSC will have an advisory role, and the drafting process is to be led by the regulator with the support of experts/subcontractors hired by EEAA as needed. This will ensure a high level of country ownership and policy implementation at the later stage.

Outcome 1.1. The principles of mainstreaming biodiversity and sustainable energy practices in tourism operations integrated in existing and future development policies, plans and programs aiming to reduce the anthropogenic pressure on the ecosystem around Hurghada

This Outcome will provide incremental support through technical assistance, capacity building and tools to test and apply an SEA and complementary NCA approach to assess and gauge tourism investments, bringing together under a common analytical framework the environmental, social and economic dimensions that are involved in every development initiative. This approach is expected to integrate environmental, alongside economic and social concerns, into strategic decision-making, thereby combining the environmental, social and economic factors into a holistic sustainability assessment. The focus will be mainly on environmental integration with the priority goal of mainstreaming and up-streaming environmental considerations into strategic decision-making. The outcome of the SEA (and complementary NCA exercise) will be to support national and local planning processes with relevant and strategic information to orientate their decisions. The SEA, in particular, will be of value for proposing possible integration of biodiversity conservation measures into existing EIA guidelines that the country currently applies to assess tourism investments as well as represent a framework to identify avoidance, mitigation and offsetting mechanisms that apply to the tourism sector in the south of the Red Sea.

Output 1.1.1. Strategic Environmental Assessment (SEA) principles established, including clear baselines to guide policy-making processes, and monitoring the condition of marine, coastal and terrestrial biodiversity in the Red Sea Governorate

This output will include interventions to draft a SEA, including guidelines for policy-making and monitoring, and develop a diagnostic assessment of the baseline for the current situation in the Red Sea area around Hurghada, with the intent of identifying and assessing the impacts, sensitive areas and economic evaluation on the main natural resources of the area that will also enable an approximate understanding of the value of ecosystem services provided by local environments. Training and technical assistance under this Output 1.1.1 will be aimed to further develop and enhance the technical capacity of existing experts, modellers and developers of accounts on SEA and natural capital accounting (NCA) to enable to assessment of value of ecosystem services, based on international best-practice methodologies and tools. An indicative list of activities under this output are the following:

90. Activity 1.1.1.1: Recruiting a national NGO/firm that will work with the Ministry of Environment/EEAA to review existing procedures for undertaking Strategic Environmental Assessment (SEA) and define the scope of the SEA exercise to be undertaken for the project area (please see the maps in the annexes). It will also define mechanisms to ensure that the development of the SEA is a fully participatory process that will allow civil society, private sector and relevant stakeholders to be involved and to contribute. The intent is to ensure that the SEA is not implemented as a separate, highly technical exercise, but, instead it is a process developed around and with the full participation of the decision-makers and thus build a strong sense of ownership and trust among civil society, institutions and stakeholders, expand strategic planning technical capacity among Egyptian environmental and tourism decision-makers and will familiarise the country with the overall SEA process. The objectives and scope of work of the SEA will be defined through this process, including the establishment of a common definition of expectation about sustainable tourism development for the Red Sea, linkages with other strategic actions and plans occurring in the area that need to be considered. It will also establish a common understanding and agreement of what information needs to be collected as part of the baseline analysis, problem areas related to tourism development and environment to be considered and the best set of indicators that are needed to assess the condition of the natural resources in the project area.

91. Activity 1.1.1.2: This activity will entail the establishment of the baseline for the Red Sea environment (based on agreement reached under Activity 1 above) through understanding of the potentially affected environments and social systems from tourism investments (hotels, tourism activities and products, tourist impacts, etc.) on marine fauna and flora (including coral reefs, fish and marine mammals); coastal landscapes (mangroves, seagrass beds, etc.) and terrestrial and urban landscapes. Particular attention will be paid to important or sensitive ecological systems and services and key species, their resilience and vulnerability and their significance to the economic well-being of the tourism industry. The baseline data will integrate all relevant information that will be uncovered by the SEA during field work and through the inputs provided by stakeholders and include a stock of natural assets, including sensitive areas, critical habitats and valued ecosystem components. The baseline will focus on the main environmental impacts and appropriate indicators will be selected (impact from tourism activities on natural resources, energy and transport, waste, emissions, water quality). The baseline should provide a clear understanding of the current scenario and a likelihood reflection of the actual situation, if no changes are introduced. Collection of baseline information will be through primary and secondary sources, such as surveys, focus group discussions, participatory appraisal, informal interaction and reviewing existing information that is available to the different planning and management agencies. The focus of the baseline will be on the direction of changes that are taking place or that are expected to happen. This will assist the project team to identify, in collaboration with stakeholders, possible future scenarios that may be expected under the current situation. The baseline is expected to facilitate decision-makers to identify current and expected trends that relate to the SEA objectives. In addition to the current scenario, trends will be assessed so as to serve as a basis for the indicating the more likely scenarios that will likely be faced.

92. In summary, the assessment of the baseline scenario will describe: (i) the Red Sea environment, including ecologically sensitive hot-spots, biodiversity resources and stocks, protected areas, economic activities, economic sectors, resources, services and transport, population, communities, traditions, culture. etc.; (ii) livelihood and dependencies, including identification of local resources and environments and of the links between livelihood and development with biodiversity

resources; (iii) tourism scenario, including tourism resource inventory/maps, seasonality and trends, tourism investments and products, tourism activities that take place in sensitive areas, mapping of relationships between natural resources and biodiversity in relation to tourism (accommodation, excursions, travel and activities), tourism flows, destination, trends and impacts; (iv) direct and indirect impacts on biodiversity and the environment generated by tourism, or by other sectors linked to tourism, such as transport, energy or provision of resources and services; and (v) direct and indirect impacts of plans and policies, legislation and laws, regulations and decision-making processes, as well as options for alternatives. Based on above, analyze overlaps in decision-making and planning, gaps and existing contradictions that can be addressed through coordination, new procedures or revision of decision-making processes.

93. Activity 1.1.1.3: Analysis of decision-making process in the Red Sea Area around Hurghada that will include a review of the current governance systems related to tourism development and management of natural resources. Existing relations and interactions among different levels of planning and decision-making will be highlighted. This will take into account local administration processes, national policies and intermediate level plans, the role of the private sector and laws, legislation, policies, regulations and law enforcement mechanisms that relate to tourism development and tourism investment.

94. Activity 1.1.1.4: Assessment of the current procedures and track record for undertaking and implementing environment impacts assessments (EIA) for tourism and related development in the area. Based on the review, the project will provide recommendations for strengthening the EIA process, including update/development of guidelines for tourism-related EIA assessment on biodiversity and ecosystem conservation in the Red Sea. In addition the project will review EIA and approval process and its enforcement and assess the capacity needs and training to enhance capacity of the stakeholders such as; Red Sea Governorate, Ministry of Environment/EEAA, MOTA, MOT, and other relevant entities (CDWS, HEPCA, Fishing Authorities, Egyptian Shore Protection Agency/ESPA, Marine Police and Coast Guards and Egyptian Tourism Federation/ETF) to support the EIA process.

95. Activity 1.1.1.5: Identification of alternatives or a set of development options that are available and the environmental advantages and disadvantages of the different alternatives, indicating possible sustainable alternatives that are capable of enhancing positive changes, reversing or mitigating impacts or offsetting unavoidable ones. The SEA will look at opportunities and impacts in terms of which actions can be more effective to minimize negative impacts as well as to reduce risks. The aim is to identify and develop alternative scenarios that can collectively help strengthen the economic base for tourism promotion, provide equitable conditions for all, and at the same time protect and enhance the environment and its biodiversity. In considering the alternative options, the intent would be to try to first avoid; second reduce; and third offset adverse impacts using appropriate measures. Benefit-cost analysis and multi-criteria analysis will be used to identify and assess options and alternatives. Trade-offs will be acknowledged and proposed options will come with an impact assessment analysis including an evaluation of social, economic and environmental costs and gains.

96. EOP Target indicators:

? Draft SEA (1) is developed including guidelines for policy-making and monitoring;

? Baseline for Red Sea environment is established;

? Analysis of decision-making and governance processes and current procedures to track and record impacts from tourism and related development in the area;

? Political level dialogue with at least 2 relevant NGOs through 2 workshops to integrate gender dimensions into policies and raise awareness on the importance of gender equality and the empowerment of women (40% women); and

? Alternative set of development options assessed to first avoid, second reduce and third offset adverse impacts

Output 1.1.2. Institutional capacity and tools for application of natural capital assessment (NCA) developed and strengthened for application in tourism and other impact sectors in the Hurghada region.

As a complementary activity to Output 1.1.1., this Output will focus on building capacity of natural capital assessment (NCA) concepts, principles and potential policy applications in the Hurghada region through recommendation emanating from the SEA work. Training and technical assistance will further develop and enhance the technical capacity of existing experts, modelers and developers of accounts on NCA to apply NCA, based on international best-practice methodologies and tools. Trainers will be identified from key institutions such as Marine Science Department of the Suez Canal University, National Institute of Marine Oceanography and Fisheries and the Egyptian Environmental Affairs Agency (EEAA) to serve as resource persons for imparting training to key agencies. The project will aim to institutionalize the NCA training in Marine Science Department of the Suez Canal University, and the National Institute of Marine Oceanography and Fisheries. This will be complementary to the development of knowledge and understanding of the use of NCA in policy among relevant line ministries and agencies that are key partners who are active in the Hurghada region. The intent is to enhance capacity and understanding on the application of NCA as a valuable tool for long-term economic decision-making that takes into active consideration the value of biodiversity and ecosystem services on which tourism is dependent on.

Specifically, this aspect will include the following activities:

97. Activity 1.1.2.1: Capacity needs assessment for National Capital Assessment. In the first instance, an NCA capacity development needs assessment (?needs assessment?) will be produced for the tourism sector (with a specific focus on Hurghada) in order to ascertain existing capacity, knowledge and awareness among the key sectors that are active in the Hurghada region to identify more precisely gaps that component one should fill.

98. Activity 1.1.2.2: Capacity and skills training. Based on the capacity needs assessment, the project will develop and conduct a training program that covers the following topics

? Conceptual framework on SEEA Central Framework and SEEA Ecosystem Accounting as well as analytical approaches used in for data producers and users of accounts;

? Training and capacity building on SEEA-based account compilation, calculation of indicators, at national and sub-national levels, including:

- o SEEA Central Framework 2021: asset and stock/flow accounting
- o SEEA Ecosystem Accounting 2021: ecosystem accounting units; ecosystem service classification and links to ecosystem functions and conditions; measurement and modelling of ecosystem condition and services; structure of ecosystem accounts and hands-on training on physical and monetary asset accounts
- o Deployment of existing available and/or development, local adaptation of existing tools on ecosystem services modelling and mapping (including software use); biophysical modelling, remote sensing and GIS tools;
- o Valuation of ecosystem services NCA for specific ecosystems (corals, mangroves and terrestrial ecosystem) and/or specific ecosystem services to tourism and local economies;

- o Policy application of NCA data, including the use of NCA data in policy scenario analysis related to Hurghada

99. Capacity development will entail (1) detail and reinforce NCA partnerships at national and provincial levels; (2) identify key NCA stakeholders and their roles, differentiating between data suppliers and data users; (3) agree on methods, formats and data exchange protocols for data needed for NCA; (4) outline policies relevant for NCA uptake and mainstreaming; (5) identify regional, national and international policies that could benefit from the use of NCA data, including the use of indicators for SDGs and post-2020 biodiversity targets; (6) set out a medium-term plan for NCA account development, including prioritization of accounts linked to policy needs; and (7) enable policy applications of NCA, including but not limited to land use management, the future development of tourism, biodiversity conservation, coral reef management and Protected Area management. Capacity building and awareness programs will target policy among relevant line ministries and sector agencies (in particular those related to (tourism, environment, fisheries, shore protection, petroleum, transportation, PA management, Red Sea Governorate), NGOs, private sector entities and other key partners that are active in the Hurghada region. Key agencies and staff that would benefit from the training would be from EEAA, National Conservation Sector of Ministry of Environment, Red Sea Governorate, Ministry of Transport, New and Renewable Energy Authority (NREA), Ministry of Petroleum, Ministry of Tourism, National Statistical Office of Central Agency for Public Mobilization and Statistics (CAPMAS), Central Bank of Egypt, HEPCA etc.

100. Activity 1.1.2.3: Capacity building for management of threats. Capacity building program to strengthen the ability of relevant sector agencies at local and regional level to ensure that they can focus on the following: (i) impact of unsustainable practices on marine ecosystems and biodiversity; (ii) defining trade-off between conservation and sustainable economic practices; (iii) application and guidelines and procedures for trade-offs in tourism and development planning; and (iv) enhancing the role of local communities and stakeholders in improved planning processes. Training will include specific focus on gender mainstreaming in the development of the policy advocacy and promotion of political level dialogue to raise awareness on the importance of gender equality and the empowerment of women in development processes. A local institution would be identified that can serve as a training institution for promotion of integrated landscape level planning and training of personal within the institution, development of curriculum and training modules and imparting such training to regions outside the project target regions.

101. EOP Target Indicators:

? Report on capacity needs assessment for NCA with a focus on tourism

? Trainings for policy makers on implementation of NCA and management of threats (2 trainings 50 participants, 40% women)

Output 1.1.3. Natural Capital Accounting (NCA) of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea Governorate to support improved policy needs for tourism energy, fisheries and transport sectors

102. The capacity building exercise in Output 1.1.2 and SEA in terms of Output 1.1.1 is expected to enhance the understanding and support policy making and economic decisions-making for improved biodiversity conservation and natural resource management in the Hurghada area, including governorate and tourism policy, planning and resource allocation. Complementary to Output 1.1.1 on SEA, the GEF incremental support would enable application of the NCA accounts and institutional capacity, including specifically conduct and analysis of alternative (development) scenarios specifically in the tourism and related transport and energy services sectors to inform the respective programs of these sectors to validate and support outcomes of the SEA exercise in Output 1.1.1.

103. The Ministry of Environment/EEAA will lead Output 1.1.3, closely liaising with MOT, MOT, RSG and other relevant entities (CDWS, HEPCA, Fishing Authorities, ESPA, Marine Police and Coast Guards and ETF) to build on current initiatives for the valuation of economic benefits of natural capital such as the work done in relation of promotion of green growth and municipal solid waste management to support improved policy and practices, including the application of NCA as a means for the economic valuation of biodiversity and the SEA as a complementary measure to ensure that tourism development at Hurghada is carried out in a manner that enhances its economic value through improved environmental and development practices. It will also feed into the city's overall desire to move forward to holistically solve environmental challenges by promoting sustainable and green tourism through developing a comprehensive tourism strategic 'Sustainable and Green Tourism Plan' SGTP. The SGTP should integrate sustainability measures and technologies to a green tourism approach in the city including: hotels and tourist boats as well as sea marina at diving centres and their activities. Through assessment of the economic case for nature-based tourism and related economic development, based on the value of natural capital and ecosystem services under alternative scenarios, this Output will inform development of appropriate policies, plans and programs in support of management of natural capital and biodiversity conservation in the Red Sea.

104. The accounts that will be considered as part of the Project are as follows:

- ? Ecosystem extent accounts based on SEEA Ecosystem Accounting framework
- ? Ecosystem services accounts, physical and monetary for the following services, based on SEEA Ecosystem Accounting framework
 - ? Ecosystem services: water and soil quality regulation
 - ? Water and Wetland ecosystem services; supply, quality and flow regulation
 - ? Global climate regulation services: carbon sequestration, storage and retention
- ? Biodiversity assessment based on SEEA Ecosystem Accounting Framework, including ecosystem condition indicators
- ? Land Accounts based on the SEEA Central Framework
- ? Water Accounts based on the SEEA Central Framework
- ? Soil condition accounts as part of the SEEA Ecosystem Accounting, including ecosystem condition indicators

An indicative list of activities under this Output are the following:

105. Activity 1.1.3.1: Defining tourism-based accounts for Hurghada. Development of NCA related to tourism at Hurghada based on up-to-date guidance on international best practice in the SEEA EA provided by national expert institution in consultation with international experts. The training on ARIES for SEEA will facilitate rapid development of selected ecosystem accounts based on best available global datasets and models sourced by artificial intelligence, which can be complemented with input from local datasets and model inputs. These accounts, and other available data on social and human capital and on ecosystem services, will serve as the basis for natural capital assessment of tourism in the Hurghada using policy scenario analysis methods. The process for scenario development will follow the approach of The Economics of Ecosystems and Biodiversity (TEEB) Country Studies, drawing on extensive experience of such policy applications in TEEB partner countries (<http://teebweb.org/our-work/country-studies/>) and the application of SEEA Ecosystem accounts in

policy scenario analysis as conducted as part of the Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project. This approach to policy scenario analysis is designed to identify the ecosystem services that are vital to meeting a country's policy priorities and make recommendations on how these services can be integrated into policies. It can help countries answer these questions: What is the natural capital in the region and particularly in the greater Hurghada area, and what is driving change? How do we measure and understand our natural capital? To what extent are the values of nature integrated into decision-making? What are the issues that need policy attention? What are the policy tools and decision options that offer solutions?

106. Activity 1.1.3.2: Defining the scope and scale of the Natural Capital Accounting. Establish the scope and scale of the natural capital assessment, including which ecosystem assets to focus on, the scales that need to be considered, boundaries of the area to be covered and level of governance. In this case, the likely natural assets might include biodiversity (including reefs, mangroves, marshes and sea grass beds) in particular as they relate to their contribution to tourism, fisheries and marine productivity, store of organic carbon in mangroves, seagrass beds and marine systems, aesthetic values of the landscape/seascape, etc. This will also entail the identification of key sector for focus of natural capital assessment. Priority sectors for a transition to a green and circular economy would be most relevant for the assessment.

107. Activity 1.1.3.3: Establishment of SEEA/EEA-based ecosystem accounts: This activity will support an SEEA/EEA-based Ecosystem Accounts or NCA exercise to build on existing information on the size and economic contribution of biodiversity (coral reefs, mangroves, charismatic species such as dolphins, dugongs, etc.) to national economic development around Hurghada. An international consultant will work with a national institution to develop full tourism satellite accounts (TSA) rather than partial, narrowly focused species-related accounting to ensure a broader ecosystem-based accuracy of information for balancing out each individual account component. The TSA will provide information on the following: (i) the tourism's contribution to the Hurghada economy; (ii) contribution to employment in tourism in Hurghada; and (iii) tourism expenditure and consumption data. This will provide information on the contribution of nature-based tourism. In addition, and more specifically the study will also evaluate the estimated costs associated with human impacts, in particular unsustainable tourism development (infrastructure construction, unsustainable visitor practices and destructive human practices such as destructive fishing and diving practices, etc. and other development practices (oil drilling and transport, boat mooring, land-based run-off and sedimentation, etc.) as well as effects of climate change. The ability to calculate costs to the health of the ecosystems, particularly to reef and overall ecosystem health with declining habitats and biodiversity would help on the long term to support decision-making about the acceptability of human activities if the economic value of tourism is to be maintained. It would provide guidance to industries, local administration and local communities when considering the economic viability of a range of activities, in and around Hurghada, taking into consideration the true cost of each activity. The intent is to develop (through a concomitant monitoring effort) to identify thresholds and triggers of action to influence the key industries and sectors who have an effect on the Red Sea ecosystem.

108. Activity 1.1.3.4: Development of pilot accounts. This capacity development will proceed in parallel and be complemented by the development of pilot accounts required for the policy scenario analysis of tourism development in Hurghada. The training will cover a broader range of accounts and methods than is strictly required for assessment

109. Activity 1.1.3.5: Communication and Awareness of natural capital assessment results. Preparing communication assets of the findings and linking to training of senior line ministry officials, the study can provide powerful demonstration effects of the potential application of NCA in policymaking, thereby contributing to its mainstreaming and uptake. The outcome of this activity would be the promotion of capacity building programs to strengthen understanding of the link between natural capital assessment and sustainable tourism.

110. Activity 1.1.3.6: Preparation of Final report: Preparation of a report documenting the data sources, methodology, data quality, compilation process, findings, including policy implications and

recommendations; discuss in this report the implications of the scenarios and provide relevant policy and regulatory recommendations, and avenues for mainstreaming results into policy decisions as well as limits impacts on the Red Sea biodiversity.

The natural capital assessment would assess extent of priority sector activities that are dependent on ecosystem assets, and the extent to which these sectors are vulnerable to loss of these ecosystem services. The assessment will provide guidance on (i) policy targets for sustainable management of Red Sea environment and investment in natural capital; (ii) which policies, investments, plans and projects can help in achievement of the country's NDC and green economy targets; (iii) what financing mechanisms can create additional incentives for sustainable management of natural capital; and (iv) how can environmentally extended cost-benefit and natural capital accounting support the transition to a green economy

111. EOP Target Indicators:

- ? Draft Natural Capital Accounting (NCA) is developed and submitted for endorsement by the government
- ? Conduct policy makers workshop (1) to ensure participation from different governmental stakeholders, private sector and NGOs to policy drafting process and
- ? Communication and awareness of NCA assessment results implemented.

Output 1.1.4. Development of policy and regulatory framework to promote green and circular investments, renewable energy integration and mainstreaming biodiversity conservation measures to limit impacts on biodiversity (e.g., Sustainable and Green Tourism Plan)

112. The SEA will guide the policy-making process and allow monitoring 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, while the NCA will illustrate the value of the natural capital basis for its tourism economy, i.e., with a clear policy focus to leverage some political decisions linked to future tourism investments, clean technologies, biodiversity protection, PA finance, tourism practices, and enforcement of related regulations. The intent of this Output is to facilitate promotion of an enabling framework for sustaining green tourism in Hurghada through strengthened 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 GEF increment will cover a multi-year implementation plan (action plan) up to the year 2030 (or beyond). An indicative list of activities proposed under this Output includes the following:

113. Activity 1.1.4.1: Establishment of a permanent regional biodiversity coordination platform for Hurghada: Establishment of a permanent regional biodiversity coordination platform that will provide oversight, guidance and support for ensuring improved and sustainable practices at the Hurghada region, including overseeing, guiding and supporting the policy reforms, implementation of actions emanating from the SEA work, promotion of best practices planning, implementation and monitoring, so as to build broader ownership and support for this work. In particular, this coordination platform could be headed by the Ministry of Environment and include key sector representatives from the tourism, petroleum, transportation, fisheries, shore protection and related agencies, Red Sea Governorate, Marine Police and Coast Guard, key NGOs such as HEPCA, CDWS, DWA (and others)

and private tourism associations and research institutions. The **coordination platform** will to promote sustainable management of marine resources and fisheries, improve coordination across agencies and public and private interests, ensure complementarity and coordination of training, awareness programs, monitoring, etc., in the region. **Attention will given during implementation on permanent regional biodiversity coordination platform with regards to the institutional arrangements, mandate and relationship with existing competent bodies.**

114. **Activity 1.1.4.2: Undertaking to access policy options: Based on the Activity 1.1.3.6, define clear policy questions and scenarios for analysis.** Scenarios must include plausible and realistic alternative management and policy options vis a vis business as usual. The organisation of work would involve: (a) engagement of a local research institute or university to conduct the analysis; (b) substantial technical assistance from an international NCA expert to ensure the quality of the analysis and the relevance of the results; and (c) an international expert to support the modelling of the ecosystem services. Engagement of wide range, but relevant stakeholders in order to validate and agree on the goals of natural capital assessment. These might include all segments of the tourism sector, energy, environment, fisheries, protected area and transport sectors, as well as NGOs, women associations, user groups, CSOs, research institutes etc.

115. **Activity 1.1.4.3: Ensuring that the SEA and NCA support policy reform. Ensuring that the efforts of Outcomes 1.1.1 through 1.1.3 using policy scenario analysis feeds directly into enabling Policy (tourism planning and related climate change mitigation and biodiversity conservation) and tools in support of management of natural resources and biodiversity conservation in the Red Sea.** First, the results from the analysis will demonstrate the economic costs and benefits, and associated trade-offs in terms of natural, social and human capital of the tourism policy interventions in the Hurghada region. Second, the results will be applicable to inform the design or zoning plans and policies in the project areas as well as other regions in the Red Sea, through demonstration of the value of natural capital and the impact of policies designed to preserve it. The results will provide recommendations for which approaches (policy, regulatory and institutional) to sustainable tourism management and biodiversity conservation work best in which locations and under which circumstances, thereby helping to inform planning in the Red Sea area more broadly. **Thirdly, it would provide the basis for developing policy guidance for artisanal fisheries within the PA, framework for area based management planning to coordinate cross sectoral planning and ensure complementarity of marine conservation and economic development, legal frameworks and voluntary commitments to marine conservation actions, fisheries management, institutional framework of area-based management, etc. In summary, specific policy and practice that would evolve through the application of NCA and SEA to the marine sector, could include (i) developing national guidelines for valuation of marine ecosystem services; (ii) develop the right tools and policy to incorporate the value of biodiversity and ecosystem services into sector and regional planning for the Red Sea; (iii) guidelines for zoning marine environments of the Red Sea and policies related to the use and safeguards for different zoning categories; (iv) guidelines for enforcement and management of activities within marine PAs, etc.**

116. **Activity 1.1.4.4: Strengthening the policy environment. The project will build consensus on policy reforms through entailing a series of meetings, consultations, and dialogue with key policy making institutions to agree on a multi-year plan up to year 2030 (or beyond) that address the needs (policy, regulatory, governance and institutional) for sustainable management of tourism in Hurghada.**

It will also present goals for the focus areas selected in Hurghada. The **strategy** 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 will be dedicated to this process.

The project will strengthen the enabling environment through developing policies and draft regulations incentivizing the adoption of green technologies with a focus integrated e-mobility and renewable energy and energy efficiency benchmarks in hotels.

- ? Expanding the existing incentive of custom duty exemption of electric cars to cover all types of electric vehicles and components for charging equipment (including e-buses of various sizes, electric two-wheelers and three-wheelers, e-boats) similar to incentives/promotional considerations made for renewable energy.
- ? Establishing standards and procedures for licensing and registration of EVs of various vehicle types (incl. both land and marine EVs)
- ? Setting up a tariff scheme for vehicle charging and incentives (based on the introduction of 100% electricity generated from renewables)
- ? Guidelines on integrating sectoral approaches into renewable energy policy and roadmaps
- ? Setting benchmarks for energy consumption per guest/room and renewable energy share (Solar PV or solar water heating) in the hotels room according to the star rating
- ? Propose annual mandatory energy audit for the hotels to compare their performance to the set benchmarks

117. EOP Target Indicators:

- ? Regional biodiversity coordination platform is established (ToR incl. workplan and minutes of the meeting (2))
- ? Strategy and action plan report (1) on integrating the results of SEA and NCA into policy, regulatory and institutional frameworks including gender mainstreaming action points
- ? Policy and regulation draft(s) focusing on the incentives are developed and submitted to the relevant governmental bodies for adoption
- ? Guidelines report on integrating sectoral approaches
- ? Conduct policy makers workshops (2) to ensure participation from different governmental stakeholders, private sector and NGOs to policy drafting process.
- ? 20 National stakeholder staffs trained and capacitated on GEEW through 2 workshops with focus on integrating gender dimensions into action plans, policies and guidelines on sustainable tourism, climate change and biodiversity protection (40% women).

Output 1.1.5. Protected areas, marine resources (incl. coral reefs, seagrass beds and associated species) and land resources (mangroves, desert ecosystems and associated species) effectively managed through future development plans and nature-based management that integrate mitigation and offsetting policies based on the outcome of the NCA and supported by completed SEA focusing on the tourism? (hotels, boats, diving centers) and fisheries impacts on the marine ecosystem and climate change

118. The SEA undertaken in Output 1.1.1 and Natural Capital Assessment reports and policies/regulations generated from Outputs 1.1.3 will facilitate the integration of key attributes related to biodiversity, ecosystem services (soil, water and climate regulation), land and soil in support of management of natural resources and biodiversity conservation in project areas. This will help decision-making (in a participatory manner) and trade-offs between conservation priorities and economic development and inform the design of tourism and related planning policies in the project areas, initial, and later in other regions of the Red Sea, through demonstration of the value of natural capital and the impact of policies designed to preserve it. The results will provide recommendations for

which approaches to sustainable resource management and biodiversity conservation work best. This will also entail establishing the funding gap related to investment on restoration and conservation of key species (e.g.; Spinner Dolphin, Indo-Pacific Bottle-Necked Dolphin, Indian Ocean Humpback Dolphin, various species of sharks, coral reef fish etc.) and ecosystems (coral reefs, mangroves, marshes and seagrass beds) in the Hurghada area. However, on the long-term, sustainable funding will be required to implement actions for the long-term management of the Red Sea ecosystem.

119. This output is aimed at identifying and supporting alternatives to enhance conservation, effectively managed PA, reduce destruction of coral reefs, mangroves, marshes and seagrass beds and associated species while enhancing the economic value and revenues from the environmentally sustainable use of these resources, improved livelihoods of local communities that would be pilot tested. Accordingly, under this Output, the project will support the mainstreaming of biodiversity, ecosystems services and sustainable resource management in the Hurghada Area Development Planning, as well as sector planning in tourism, navigation, energy etc., as relevant. These planning efforts will be defined based on the NCA and SEA that will be undertaken in the previous outputs under Component 1 to inform alternative practices to enhance conservation, effectively managed PA, reduce reef, mangrove and seagrass bed degradation, while enhancing economic benefits and livelihoods of local communities. While, the NCA work will demonstrate the economic costs and benefits, and associated trade-offs in terms of natural, social and human capital of the development policy interventions, the SEA work assess the impacts and alternatives, these will also importantly inform the design or development of planning policies and investments that enable the demonstration of the value of natural capital and the impact of policies designed to preserve it, so that approaches to sustainable Hurghada resource management and biodiversity conservation can be applied to inform development planning and policy more broadly in the Red Sea area.

120. This will help develop guidelines and procedures for identifying specific alternative investments for biodiversity conservation in the Hurghada area, interventions for sustainable tourism development (including zonation, licensing of all marine developmental activities, diving centres carrying capacity, boats sizes, economic alternatives, monitoring, boats radar system, law enforcement, etc.), sustainable fisheries and harvest of natural resources, areas for protection and restoration and social and environmental safeguards are not breached in the establishment of development facilities (as reflected in Output 1.1.4). Tourism and development planning will involve multiple stakeholders and interest groups, including community representatives, traditional authorities, CSOs, and government representatives, NGOs, resource users, etc.

To achieve this output, the following activities will be executed.

121. Activity 1.1.5.1: Based on the outcome of Outputs 1.1.3 and 1.3.4 develop consensus among key stakeholders on a long-term planning. This would lead to agreement on a strategic multi-year development plan (up to 2030) that defines clear future directions or a roadmap for the Hurghada and Northern Red Sea region, including the strengthening of 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 of Hurghada. The intent is to use this development plan to leverage political decisions, incentives and regulatory mechanisms linked to future tourism Investments that promote integration of sustainable practices for biodiversity protection, PA finance, tourism practices, and enforcement of related regulations. Workshops, meetings, and policy papers where relevant will be developed to promote political support for the proposed framework. The development 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 development plan will ideally 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. Strategic multi-year development plan will include women participation strategies.

122. Activity 1.1.5.2: Based on the agreed strategic multi-year development plan, support the adoption of regulations and best practices and provide guidelines and technical advice (national

support) to key sector agencies (tourism, fisheries, shore protection, infrastructure, energy, etc.) to support adoption of regulations of economic activities in Hurghada as well as integration of climate change mitigation, implementation of nature-based solutions. Limited implementation support for activities aimed at reducing impacts on biodiversity and ecosystems and promotion of small-scale nature-based solutions as pilots (for demonstration) such as mooring, sustainable diving centres, energy conservation, water saving, fishing, boat building, electric mobility, etc) that are further discussed in Component 2 & 3 of the project.

123. Activity 1.1.5.3: Development of an **Information Management Framework** at the regional level (cartographic database, management of partners, coordination of the activities of the various partners, monitoring of management transfers and support to grassroots communities, etc.). This will help improve the data collection for future analysis use, including data collection, assessment, and consolidation for data providers, with an emphasis on standardizing collection of spatially explicit data with the intent of monitoring the condition of natural resources in the Red Sea and the impact and effectiveness of policy changes management measures. The project will collaborate with the National Statistical Office on information and data exchange. The project will work with WDPA to update the area of the NIRSPA to avoid inconsistency between national and international data.

124. EOP Target Indicators:

? **Strategic multi-year development plan including long-term strategies on infrastructure investments and women participation strategies**

? **Minutes of the workshops (4) on providing technical support to key sector agencies (tourism, fisheries, shore protection, infrastructure, energy, etc.) to support adoption of regulations of economic activities in Hurghada (80 participants, 40% women)**

? **Information Management Framework**

COMPONENT 2. GREEN TECHNOLOGY INVESTMENTS MITIGATE GHG EMISSIONS AND REDUCE DEGRADATION ON MARINE ECOSYSTEMS, AND IMPROVE ECONOMIC COMPETITIVENESS OF THE TOURISM SECTOR

125. Component 2 will address the prevailing barriers (Lack of technical capacity and proper management of technical infrastructure in tourism industry, lack of proper financing instruments, and sufficient awareness on sustainable tourism activities) through a green economy investment programme that will be implemented through a range of demonstration activities, and provide the groundwork for replication of low carbon and resource efficiency technologies in hotel facilities and other touristic infrastructures that will also benefit the nature-based infrastructure, including e.g. energy supply and demand optimization, innovative forms of road and maritime mobility as well as biodiversity-friendly design principles. This Component will support sustainable financing mechanisms to be developed/extended and utilized in the tourism sector to greener the existing infrastructure and improve the economic competitiveness of the tourism sector.

Outcome 2.1. Green economy investments are mainstreamed and de-risked to reduce biodiversity harmful practices and green-house gas emissions

126. This outcome will be focusing on pilot investment activities and support concrete on the ground activities that promote low-carbon and resource efficiency technologies in public and private sectors. The component will build on TA-funded activities supported below and provide targeted cost-sharing GEF support for selected pilot investments in Hurghada.

Output 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) including integrated climate-risk, and biodiversity conservation principles

127. The whole Red Sea (and Hurghada within it) is one of Egypt's national treasures, yet if all challenges remain unaddressed, the very foundation on which its tourism economy depends (beautiful landscapes, healthy air, water and ecosystems especially coral reefs, clean urban areas and beaches, clean transport; etc.) are facing serious risks for the future. And Egypt would risk losing a key contributor to its international touristic reputation and national income. Global trajectories for reducing carbon emissions depend mainly on the local adoption of alternatives to conventional energy sources, technologies, and urban development. Yet, decisions on which type of capital investments to make, made by the state, the governorate or the City as part of the normal budget cycle, do not fully (or not at all yet) incorporate climate considerations, and as a consequence, result in prioritization of investments that diverge from a low carbon path or what is considered nature-based solutions and a potential missed opportunity to reap financial benefits from efficiency gains.

128. As a consequence for Hurghada and the Red Sea, the intent is to try to replace or at least augment traditional grey or concrete or environmentally unfriendly-based infrastructure to allow for natural protection and/or recharge of ecosystems. Nature-based infrastructure projects can include features that are completely natural (and blend with the natural landscape) that can provide several benefits such as shore-line erosion control, and land-based runoff management, wave buffering, improved water quality, improved habitat for species, opportunity for groundwater recharge, recreation uses, and aesthetic appeal, among others. The extent to which nature-based infrastructure features provide these benefits is partially dependent on the types of tourism and resort features used and the location, but in the context of the GEF project, this might include, but not be limited to infrastructure development such as dune and beach creation and protection, beach nourishment; dune vegetation establishment, mangrove, marsh and wetlands restoration and preservation; submerged aquatic vegetation restoration and preservation, coral reef protection, restoration and management, sediment traps, permeable ground structures and pavements to promote seepage, rainwater harvesting systems, greenspaces and forest gardens. Such development can also promote positively to local community development and livelihoods by integrate natural ecosystem or landscape features that can enhance availability of natural resources that benefit the local population (improve fisheries, tourism experiences and reduce shoreline erosion and flooding). These can be planned and developed by hotels and resorts owners.

129. The Project is to support the Governorate of the Red Sea to design and implement projects that address the current environmental and urban development challenges, to promote a sustainable tourism that significantly reduces its impact on the local environment and global climate. The project will seek to establish 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 marine and land ecosystem increase.

130. The intervention to achieve Output 2.1.1 will be also built on the previously developed Sustainable Energy and Climate Action Plan (SECAP 2017) that formulated some of its strategic objectives and actions to be implemented within the SECAP around the following pillars: to (i) Integrate the development of energy efficiency and renewable energy into the Governorate (municipal) sustainable development plan (job creation, local energy efficiency and renewables market, market for local services, etc.). (ii) Engage all stakeholders in the territory to promote energy efficiency and renewable energy development; more specifically, engage with all tourism operators to ensure they contribute to the necessary energy transition and highlight the many benefits they will get from this transformation; (iii) Develop partnerships with all providers that are favourable to the implementation of the SECAP; (iv) Inform the public about the true cost of energy and make known the incentives and initiatives that encourage energy conservation and efficiency; (v) Create energy conservation and efficiency measures, renewable energy development and environmental protection communication plans that target the local population and the socio-professional categories present in the territory of the city of Hurghada.

131. Activity 2.1.1.1: Elaborate criteria for 'climate-smart capital investments' in Hurghada and the Red Sea. Based on the previous activities and outputs in Component 2, the project will set up and develop together with the governmental and regional stakeholders (incl. Governorate and City), NGOs/scientific and development partners a set of criteria for 'climate-smart capital investments', based on which the framework for a future capital investment plan will be elaborated. The criteria will be developed with local experts' support and consider climate change mitigation as well as adaptation requirements, including biodiversity-friendly infrastructure developments and operations, and incorporate nature-based solutions within the new capital investment plans (CIP). Furthermore, it will integrate available regional/municipal policies and plans: (i) Strategic Urban Plan, (ii) Waste Avoidance and Waste Management Plan, (iii) Red Sea Environmental Action Plan, (iv) Tourism Development Plan, (v) SECAP and others, covering main infrastructures such as energy supply (with specific focus on renewable energy) and transportation infrastructure (with specific focus on tourism infrastructure development), and other related disciplines, such as waste management, water supply (incl. desalination plants)/wastewater management, and integrating updated planning for the PAs located in the Red Sea Governorate.

132. Activity 2.1.1.2: Develop a Climate-smart capital multi-year investment plan (CIP) for Hurghada (and moreover: for the whole Red Sea Governorate). The CIP is a policy tool used by local governments that forecasts major capital projects and acquisitions, such as municipal power plants, modernization of a water supply system, waste management or the development of new tourism infrastructures (although in the specific case of Egypt this is under the TDA). It allows governments to prioritize the funding and timing of urgent projects, while planning for others in the future. A well-designed CIP will help the City of Hurghada to identify a clear pathway towards climate-smart infrastructure investments; it may in addition help in the future to get better ratings and lower interest rates on debt in case of financing to be mobilised. In the long-term it is expected that the CIP will be linked to meeting and implementing climate change mitigation and adaptation targets. The project will establish sustainable and low-carbon technology solution for each investment project through climate-smart and cost effectiveness criteria, helping the stakeholders to understand how a project can have a lower carbon output compared to those designed through conventional methods. Improving municipal finances and strengthening capital investment planning with a climate focus will help the City and the Governorate to deliver better services and become more livable and resilient in the long term. The GEF increment will cover a multi-year financing implementation plan up to the year 2030 (or beyond). The financing plan will present goals for the focus areas for intervention (CCM and BD), either mobilised by public sector (municipal, governorate or state investments) or by private sector (e.g. hotels/resorts developments, tour operators, private energy and mobility service providers, etc.). The goals will be expanded upon through various actions. The plan will also define who will carry out the actions, as well as the schedule for their implementation. The action plan is intended to function as a practical guideline for all parties involved on how to achieve climate-smart investment programme. The action plan will include both, long-term strategic infrastructure investments (implementation scope beyond 6 years), as well as short-term measures implemented with TA and financial support under the GEF Project and providing a contribution to the implementation of the project targets. The action plan will form the prioritization framework and include a scoring system for infrastructure investment projects (incl. multi-criteria analysis^{[12]¹²), including assessment of environmental and climate impacts. The plan will be evaluated annually, and additions will be made as necessary.}

133. EOP Target indicator:

? Climate-smart investment plan (1) up to the year 2030 developed

? 2 Associations/organizations that promote GEEW consulted in project planning and design and attending project meetings particularly with regards to participations to the workshops and investment facilitations

? 4 meetings conducted involving staff of governmental agencies and training on gender dimensions in the project context (20 participants, 40% women)

134. Activity 2.1.1.3: Launch a "green tourism" marketing and awareness campaign for Hurghada. The project will establish a cooperation between the EHA in the Red Sea Governorate and the big travel operators (responsible for getting the significant share of international tourists to Hurghada). The campaign will enable the hotels and operators to maximize the benefits (revenues) of using green tourism as a tool for promoting tourism (e.g. a dedicated Green Tourist Information Center), and it should tackle different marketing aspects such as targeting, quality & level of hospitality and pricing and promotion. In addition, the project will aim to support the development of awareness-raising campaigns and public display of relevant (green city/tourism) indicators that will be differentiated to targets all the different beneficiaries and stakeholders in the city. The campaign will run in various languages and will provide visitors to Hurghada with a set of recommendations to help them make responsible choices when travelling and have a positive impact on the destination they visit.

Output 2.1.2. Financial mechanism developed and submitted for government's approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity

135. The ability to mobilize resources to finance investments and interventions at the city level as well as private sector level, e.g., tourism infrastructure, will be crucial for implementing the priority measures from the action plan. Currently, Hurghada faces challenges to provide sufficient funding from public sources for basic infrastructure and services to meet the needs of a growing urban population and recovering tourism industry, while also making capital investments for forward-looking projects. In addition, funds from the private sector have to be mobilised in significant amounts. Investments in physical assets reduce any foreseeable risks to the city's sustainability. Such investments may include hard infrastructure for upgrading existing building structures (e.g., energy and resource efficiency considerations) and public infrastructures, incl. public transportation, delivering water and sanitation services, expanding renewable energy distribution and energy efficiency in public and private entities. Hard infrastructure investments need to be carefully structured financially, institutionally, and legally in order to mobilize the necessary long-term capital financing needed for project implementation.

136. The Project will provide technical assistance in setting up a financing mechanism. This fund could be set up as a revolving fund so that it would last for a long period of time in order to sustain the project activities and to maximize its benefits. The fund set up can be integrated to the Revolving Fund which was established by the GEF5 "The Solar Heating in Industrial Process (SHIP[18])" project (GEF ID 4790), which has established a revolving fund to ensure expanding the use of solar thermal technologies with focus on introducing solar water heaters (SWH) in industry. The scope of this revolving fund will be expanded to include tourism sector and relevant other technologies besides SWH such as energy efficiency technologies and e-mobility.

137. The Outputs 2.1.2 is designed to develop a financial mechanism that will leverage public and private sector funds to be invested in climate-smart technologies and nature-based solutions in Hurghada. TA will be provided under this project for setting up the structure and detailed procedures under which the financial mechanism would operate in the future, based on existing initiatives (e.g., CBE Tourism Initiative or/and Revolving Fund established with the National Bank of Egypt (NBE) under GEF ID 4790).

The current Revolving Fund is maintained and operated by the NBE based on standing guidelines and instructions issued under GEF ID 4790. The process follows a project cycle already practiced efficiently implemented for other revolving funds with financial institutions and especially with the NBE.

The purpose of the fund is to provide soft financing (e.g., low-interest or subsidized loan) to the private sector, the beneficiary of the project, to co-finance the investments to be undertaken to achieve the

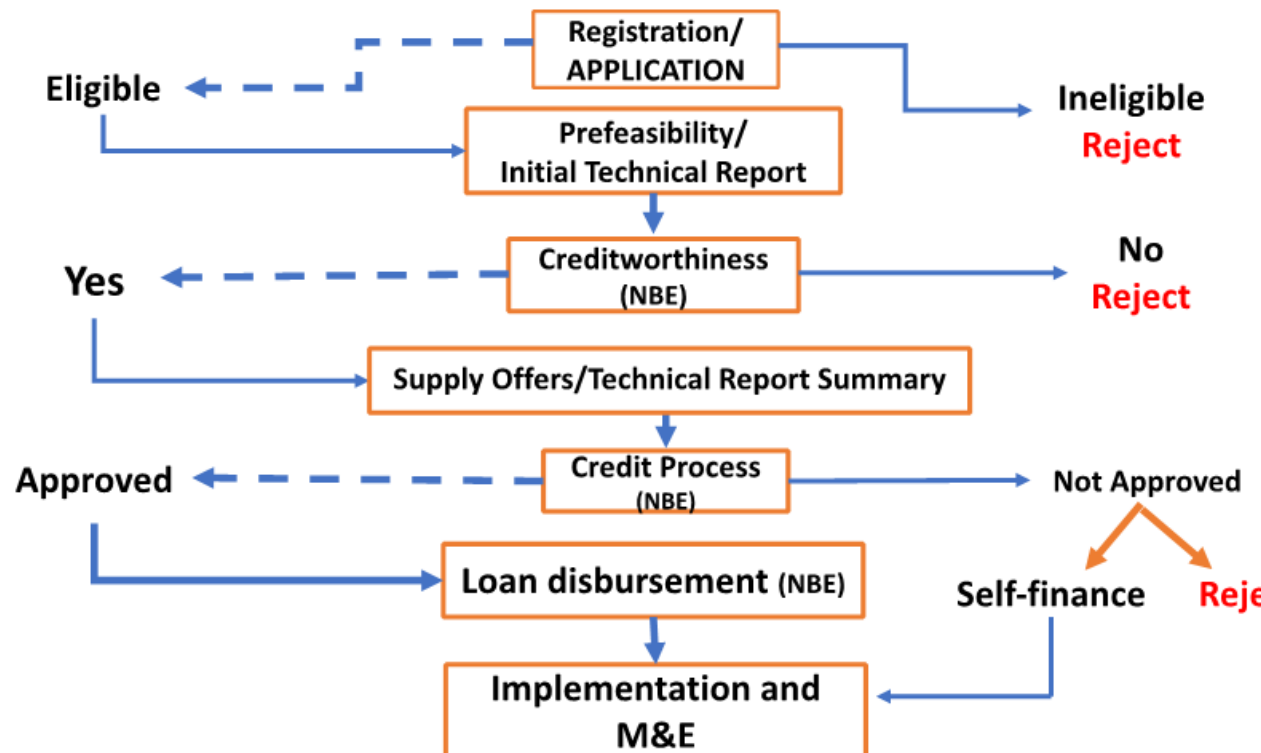
priority measures stated in the action plan (substantial energy efficiency and clean technologies mainly Solar Water Heaters). The project will expand the scope of the revolving fund to include tourism sector and other technologies such as energy efficiency and e-mobility. The fund structure will be mix of equity, NBE loan and the GEF grant (based on the minimum additionality of GEF financial contributions to make the project feasible) that will be further elaborated based on the pre-feasibility studies that will be conducted under Output 2.1.3.

The project steps exhibited in the diagram are implemented by the Project Management Unit except where it is mentioned (NBE) as those relate to the bank's credit assessment of the end beneficiary, both at the City level or the private sector, applying for financing from the Fund.

The conditions to participate include technical, economic, environmental, technical, social and biodiversity criteria, e.g., the amount of energy savings generated, the increase of share of renewable energy supplied, GHG emission reductions, the maturity of the technology used, biodiversity impact, social (e.g., gender, job creation) impact or economic criteria such as net present value or payback periods generated by the projects.

The application procedures and details of the selection criteria will be further elaborated during the project (refer also to description in Activity 2.1.3.2).

Revolving Fund's PROJECT CYCLE



138. Activity 2.1.2.1: Develop the long-term financing framework for Hurghada. The project will setup a coordination group between governmental stakeholders (e.g., Ministry of Tourism, Ministry of Environment, Ministry of Financing, the Red Sea Governorate, etc.), financing sector (e.g. NBE, 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 the specific climate-smart criteria developed under Output 2.1.1. 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. A coordination group will steer the decisions on the practical issues of the financial mechanism setup, including the funding options and amounts provided from governmental and/or private/commercial sources. The coordination group will be responsible for approving the financial mechanism (Output 2.1.2 target indicator).

139. Activity 2.1.2.2: Evaluation of financing options for promotion of nature-based solutions. Evaluate options for private sector financing solutions that can potentially support the promotion of nature-based tourism and resort infrastructure in the Hurghada area. This Activity will cover the following: (i) identification and assessment of an array of potential investment opportunities for PAs (following for instance the BIOFIN catalogue of financing solutions); (ii) defining a time plan and sequencing of different revenue and cost-recovery options for conservation; (iii) providing recommendations for best concessionary options, partnerships and investments for potential promotion and marketing; (iv) identifying and supporting feasibility studies and business plan development for best business opportunities; (v) developing safeguards and environmental actions for these businesses that integrates best practices; (vi) capacity building for enhancing co-management practices with businesses and the effective enforcement and monitoring of business outcomes; and (vii) seed financing to support implementation of pilot business investment opportunities.

140. EOP Target Indicator:

? the scope of the Revolving Fund in NBE is expanded to cover the project's activities

● ? Financial mechanism developed (1) and submitted for signature by NBE and the relevant governmental stakeholder (e.g., Ministry of Environment)

● ? the management of the fund is handed over to the Ministry of Environment at the end of the project

Output 2.1.3. TA to develop green investment projects in renewable energy, energy efficiency and e-mobility facilitated

141. In general, for all the envisaged outputs below, the TA will include support in technical design, installation and procurement specifications for the purchase of energy/resource-efficient equipment, renewable energy or transport/mobility installations. Further guidance on the required technical specifications and other criteria for supporting the first installations will be provided in the documents to be finalized at the project inception phase. Besides the financial evaluation, all projects to be supported with GEF funding will be subject to technical due diligence and verification of the proper installation and performance of the system during the commissioning stage by the project's technical expert(s) and/or installers authorized by the project before releasing the GEF support. The investors receiving support are also expected to commit themselves to collecting and sharing with the project's

Implementing Partner and the PMU monthly performance data of the installed systems for the duration of the project, which then can be used for further public awareness-raising and research activities.

142. Activity 2.1.3.1: Identify climate-friendly investment opportunities for green innovation in tourism facilities. Increasing the investment in innovative low carbon and resource efficiency technologies in hotel facilities will be supported in this component, by promoting the identification of innovative, commercially driven investments of more energy and resource efficient technologies, leading to GHG emission reductions and the increased use of resources among the hotel and tourism industry. Some international and national hotel chains have a relevant presence in Egypt and Hurghada, such as Marriott, Sol y Mar, Labranda, Fort Arabesque, and JAZ Group; some of them already show a high interest and activity in investing in low carbon technologies, while others, mainly smaller owner-led hotels have been facing financial limitations over the past years and therefore have not engaged widely on energy and resource efficiency projects.

143. Activity 2.1.3.2: Support the implementation of climate-friendly investments in tourism facilities. The project will set up a competitive selection process in cooperation with EHA to select hotels and resorts that submit their investment proposals, covering a range of projects improving the use of energy and resources and provide them with TA and co-financing for implementation of nature-based solutions. The amount of financial contribution from GEF will be based on a set of criteria, including maturity of technologies put in place, amount of energy saved, or renewable energy produced, and other hard and soft criteria (e.g. other environmental benefits achieved, number of combined measures implemented, willingness to disseminate and promote good practice). The following types of investments will be eventually considered eligible:

- ? Implementation of high-efficient equipment (e.g. boilers, pumps, office equipment, chillers, heat recovery units, etc.)
- ? Installation of renewable energy generation capacities (e.g. rooftop photovoltaic systems, PV systems on parking lots or mounted close to marinas/beaches for supplying electricity to charging stations for e-vehicles/boats)
- ? Improvement of heating/hot water preparation, ventilation and A/C systems
- ? Reduction of cooling load (e.g. reduce heat sources, shading systems, free cooling, remote A/C performance monitoring systems)
- ? Replacement of lighting systems based on LED technology (indoor and outdoor)
- ? Supporting the phase-down of hydrofluorocarbons (HFCs) in A/C systems as well as replacing and safely disposing inefficient cooling appliances and refrigerants
- ? Installation of energy controls and regulations systems (e.g. install occupancy-linked controls, room-based key cards, occupancy sensors, building energy monitoring systems)
- ? Installation of water saving technologies (e.g. adjustable flow restrictors on taps, faucet aerators, reduce of water leakages, drip-irrigation systems)
- ? Innovative transportation systems offered by hotels to their guests and staff for local transportation (to/from hotels to city/airport, nearby destinations), e.g. using electric or hybrid vehicles or offering bikes for rent.

144. Hotels selected for the investment support will have the chance to benefit from TA services provided by the project, including energy assessment (energy audits), development of technical specifications, design and procurement support, as well as training courses for members of the hospitality industry, information on best practices and relevant energy and environment related

indicators. Reference will be also made to other similar previous initiatives that built a lot of capacity and TA, such as the UNDP-GEF financed projects 'Improving the energy efficiency of lighting and other building appliances?', 'Grid connected small-scale photovoltaic systems?' or the UNEP initiative 'U4E' (United for Efficiency), a global effort supporting developing countries and emerging economies to move their markets to energy-efficient appliances and equipment. Moreover, the Greening Hurghada project will interlink closely with the other MoE/EEAA-promoted and UNDP-GEF supported project 'Green Sharm' (GEF ID 10117), that has a similar investment component. From both initiatives located in the Red Sea and considered the main Egyptian touristic hotspots, Hurghada and Sharm-El-Sheikh, it is expected that a number of synergies, experiences, and best-practice examples will evolve and be available for replication between the cities and in other Egyptian destinations.

145. Activity 2.1.3.3: E-Mobility Promotion program set up for public and touristic infrastructure in Hurghada. The project will aim to provide an initial 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.

During the PPG, the options to electrify marine transportation has been assessed with the result that there are a few technical solutions based on green technologies in daily tourist boats. One of the challenges for e-boats has been identified in the necessary range for daily operations and therefore size of batteries to be carried on board, which impacts the economics (mainly CAPEX). Depending on the size of the engine and battery, the economics vary accordingly (with SPB between 7 and almost 16 years, with an average useful lifetime of boats between 12-15 years). Based on field studies conducted by the Arab Academy of Sciences in the Suez canal and further research cooperation with foreign universities (e.g. Australia), the project will develop a full-scale feasibility studies as required. The feasibility studies will provide technical design for conventionally diesel-driven daily boats and/or EEAA's inspection boats with hybrid (diesel/electric) propulsion systems that would allow the boats to drive on electric motor while approaching or driving around coral reefs, diving or spotting areas, sensitive ecological sites or in ports/marinas, whereas using conventional diesel propulsion on the open sea. The full switch towards electric (or solar electric-supported) propulsion technology could be also tested in a limited number of boats, although the major limitation would be linked to the higher CAPEX (e.g. 1.5-2 times higher than conventional engines) due to the required battery storage and the limited range to be covered by the battery power during a daily trip (assumptions in table 2 above show that the electric coverage per daily use shall be at least 95%, since boats on a trip will not be able to recharge in between). The pilots will result in evidence-based nationally-generated technical data on economic and environmental benefits. This data will include the comparison of the environmental impacts of fossil-based fuels such as GHG emission reduction potential, reduced air, noise and sea pollution near the coral reefs and diving sites, as well as economic data (e.g., reduced operational costs due to fuel savings). In addition, the technology demonstration will increase capacity, know-how and awareness among boat operators, technicians and engineers. The environmentally friendly approach will future proof the tourism sector in the shift towards sustainable tourism. The recommendations to switch to electricity mode in biodiversity and environmentally sensitive areas (i.e., protected areas) are integrated into project activities targeting PA management under Component 3 (e.g., Output 3.1.3). During the PPG, interest and willingness to cooperate in these pilot investments have been informally received by the EEAA and the CDWS which represents the daily boat operators.

The table below shows the energetic and economic results of the prefeasibility assessment conducted during the PPG.

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i. Assessment of types of boats (daily boats ? used for touristic purposes ? and inspection boats used by the EEAA authority) and their daily/annual usage time ? assuming average demand for electricity and/or diesel in the case of alternative hybrid or full electric modes

Type of boat	Boats operating hours			Average consumption		Max. speed km/h
	Days/a	h/day	h/year	electr. [kWh/h]	diesel [l/h]	
1) Daily boats (diving, daily cruises) - 50 ft						
- change to hybrid diesel/electric	250	3	750	13,0	9,0	10-12
- transform to fully electric	250	6	1 500	50,0	28,0	30-40
2) EEAA Inspection boats						
- change to hybrid diesel/electric	250	4	1 000	13,0	9,0	10-12
- transform to fully electric	250	6	1 500	75,0	40,0	30-40

ii. Comparison of boat size, CAPEX and OPEX and simple payback times (based on the assumptions above) based on the electric coverage per type of boat (in %)

Type of boat	Electric Capacity	Power [kW]	Battery size [kWh]	Total CAPEX USD/total	Electricity demand		El.coverage %* (accepted > 95%)	Diesel fuel replacement	
					kWh/charge	kWh/year		ltr/year	kWh/year
1) Daily boats (diving, daily cruises) - 50 ft									
- change to hybrid diesel/electric	2x 15 kW	30	40	50 000	36	9 750	103%	6 750	65 989
- transform to fully electric	2x 50 kW	100	100	125 000	90	75 000	33%	42 000	410 599
2) EEAA Inspection boats									
- change to hybrid diesel/electric	2x 15 kW	30	50	65 000	45	13 000	96%	9 000	87 985
- transform to fully electric	2x 75 kW	150	200	185 000	180	112 500	44%	60 000	586 570
Totals				425 000		210 250	* in % of daily operation	117 750	1 151 143

iii. GEF project scenario with cost sharing mechanism introduced ? including number of boats for transformation to hybrid or electric mode

Type of boat	Electric Capacity	Power [kW]	Battery size [kWh]	Number/EOP	Total CAPEX USD/total	Possible GEF contribution USD/total	Electricity demand kWh/year	Diesel fuel replacement kWh/year	OPEX savings USD/yr	SPB (years)	SPB (years) w/ GEF	GHG ER tCO2/ye
1) Daily boats (diving, daily cruises) - 50 ft												
- change to hybrid diesel/electric	2x 15 kW	30	40	3	150 000	60 000	29 250	197 967	9 458	15,9	9,5	52,8
2) EEAA Inspection boats												
- change to hybrid diesel/electric	2x 15 kW	30	50	3	195 000	78 000	39 000	263 956	12 611	15,5	9,3	70,4
- transform to fully electric	2x 75 kW	150	200	1	185 000	74 000	112 500	586 570	26 419	7,0	4,2	156,5
Totals					530 000	212 000	180 750	1 048 493	48 488			279,7

146. With regards to end-of-life management of batteries, the project will also support policies in favor of common approaches aligned with the 3R concept (Reuse-Reduce-Recycle) that would allow for a second-life application or through improved recycling and disposal regulations and practices of batteries.

147. For example, the Ministry of Transportation in cooperation with EEAA is planning to use approx. 200 electric buses that are procured in advance to the upcoming COP27 in Sharm-El-Sheikh (November 2022) to be distributed to other Egyptian cities. The plan foresees for Hurghada to receive 10 large buses to enter into operation for public services in the city. The buses will be co-financed by the Government. Without the project's TA and infrastructure support (e.g., provision of electric charging stations), e-buses will not be in operation in the short/medium-term due to lack of required charging infrastructure and capacity in Hurghada particularly on renewable energy-based charging as assessed during the PPG through site visits and stakeholder consultations. The project will support Hurghada to operationalize these buses and integrate the charging with renewable energy

sources to ensure the climate mitigation benefits. In addition there are private operator active in the field, such as Mowasalat Misr, experienced in public bus operations in Greater Cairo and other cities, is potentially interested to start operations in cities like Hurghada. In addition, the private-owned operator Abou Ghaly Motors (AGM) that already owns and runs about 275 electric cabs (London cab type), to be operated during the COP27, also plans to shift a number of these e-cabs to Hurghada and other cities, where they already offer taxi and limousine services together with a mobile application.

148. SECAP Hurghada that has already defined in its Action Plan the implementation of a Sustainable, Clean and Green Urban Mobility Master Plan (SCGUMMP), which will encourage the roll out of new engines technologies in private and collective vehicles (e.g., electric or hybrid buses, mini-buses and taxis).

149. Target indicators:

? TA provided to energy and resource efficiency or renewable energy measures supported and implemented in at least 15 hotels, leading to reduction in energy and water consumption per guest by an average of 30%

? TA to mobility operators (public, private) for detailed feasibility and technical design focusing on electric mobility (buses, taxi, boats) utilizing 100% renewable energy sources (incl. concept for e-charging stations across the city) (2-3 feasibility studies equal to pilot technology projects)

Output 2.1.4. GHG emission inventory developed for the tourism sector, and capacity in place for continued tracking and MRV

149. Establishing a monitoring process is an important part of the project, since it (i) allows to measure progress toward the target indicators defined in the project logframe; (ii) moreover, it enables the PMU and governmental stakeholders involved to track the impacts of the interventions and compare estimated impacts to what is actually achieved in terms of energy savings, renewable energy production, GHG emissions reduction, and efforts to improve resilience to the impacts of climate change. Assessing the implementation status of the actions and their effects also allow to identify corrective measures, in case specific actions are not delivering their expected impacts. Monitoring is furthermore an important exercise to help visualizing the progress made towards development indicators (and thus often used to monitor progress towards achieving SDG2030), while documenting best practices or success stories to be shared with other stakeholders.

150. The tourism sector is highly vulnerable to climate change and biodiversity degradation and at the same time contributes to the GHG emissions. Accelerating climate action in tourism is therefore of utmost importance for the resilience of the sector. Transforming tourism for climate action requires setting up a low carbon pathway which needs to be benchmarked with the sector's baseline emissions. This can be achieved through monitoring, measuring and disclosure of the GHG emissions related to tourism activities in Hurghada (benchmarking with other tourist destinations) and the setting up evidence-based targets.

151. Up to now, mechanisms that ensure the regular monitoring of tangible data on tourism impacts continue to be limited in Egypt. Yet, for the environmental performance and competitiveness of major tourist destinations like Hurghada that rely on irreplaceable natural treasures such as its marine natural capital, monitoring mechanisms that generate regular insights into impacts provide stakeholders with tangible evidence in the management, preservation and maintenance efforts of the environment to which they are connected.

152. The following activities are foreseen to achieve this output:

153. Activity 2.1.4.1: Build local capacities to track project progress and its impacts through monitoring, verification and reporting (MRV) methodologies. The project will support the establishment of a MRV system at local or regional (governorate) level to provide regular, reliable and context-specific insights for the sustainable development of tourism in Hurghada and in the region. In this respect, it will train local stakeholders on how to establish a systematic process to collect, assess and evaluate relevant specific environmental, social and economic data. In addition, it will engage with other tourist destinations (e.g. Sharm-El-Sheikh) setting up similar environmental performance monitoring, reporting and verification systems to exchange results, experiences and specific indicators relevant for touristic destinations and eventually improve its own MRV processes.

154. Activity 2.1.4.2: MRV process operationalised for continuous evaluation of project performance. Monitoring, reporting and verification will involve the systematic collection and analysis of information based on planned activities and set targets during the implementation of the urban sustainable development strategy and activities, where the data collected accords with a set of performance indicators relevant to the measurement of the progress made towards greening Hurghada. Monitoring will include project relevant impact indicators (e.g. resource efficiency and energy use, sustainable transport, biodiversity, GHG & other air and water emissions as well as other environmental performance indicators such as municipal or hazardous waste generated). In addition, management efficiency indicators related to integrated planning, transparency and citizen participation will be defined and monitored.

155. Activity 2.1.4.3: Evaluate in regular intervals the progress towards achievement of target indicators. A database for Monitoring, Reporting and Verification (MRV) of major environmental, economic and social performance indicators will be developed to guide and adapt the future development of Hurghada into a greener and sustainable city. The results from the MRV process will feed into the monitoring platform which will evaluate ongoing successful experiences and will monitor sustainable city indicators based on indicators developed by e.g. the Global Platform for Sustainable Cities (GPSC) as well as other indicators that may be identified specifically for the Hurghada case. Evaluation exercises will be designed and aligned with other strategic processes ongoing, e.g. the Sustainable and Green Tourism Plan or SECAP implementation, with biennial updates conducted to compare actual outcomes and impacts against the agreed ones.

156. EOP Target Indicator:

? GHG emission inventory (1) is developed

Output 2.1.5. Systematic integration of key biodiversity-friendly design principles, NBS and their effective management including cooperation with and support programs for hotels and dive centers

This output is aimed at integration of biodiversity conservation and ecosystem services maintenance into economic investments at Hurghada to better manage and mitigate threats posed on biodiversity and ecosystems. To achieve these objectives, Output 2.1.5 is set to mitigate, or at least reduce the impacts of nature-based infrastructure and through integration of biodiversity-friendly design principles in nature-based infrastructure (NBI) to manage natural ecosystems and touristic landscapes to generate value for society.

The following are indicative activities under this output:

157. Activity 2.1.5.1: Assessment of cost-effective nature-based solutions. Provide technical assistance (consultant) to collaborate with the Red Sea Governorate, Ministry of Environment and Key Hoteliers and the Hotel Association in Hurghada to undertake an assessment and identify where cost-effective nature-based solutions are appropriate. Based on the above assessment, the consultant will conduct activities (position papers, workshops and training) to make the business case and create

awareness for investing in cost-effective nature-based infrastructure solutions (that have potential to generate economic, environmental and social benefits, including climate change mitigation)

158. Activity 2.1.5.2: Evaluation of governorate and national policies. Evaluate (using same consultant for Activity 1) governorate and national policies regarding tourism development and management to identify constraints and gaps to assess extent of coverage of ensuring biodiversity-friendly design, maintenance, monitoring and enforcement requirements in the tourism sector. The Governorate has its own policies and regulations, and in the same time they follow national policies and regulations. This might include, but not be restricted to coral reef and seagrass protection, coastal habitat protection, mangrove and marsh restoration. Based on this assessment provide guidance for strengthening the promotion of NBI. **The project will collaborate with women associations to ensure the gender dimensions such as generating socio-economic benefits for women are integrated into policies.**

159. Activity 2.1.5.3: Technical assistance to support the implementation of nature-based solutions. Based on Activities 1 and 2, identify a priority pilot projects for demonstration the application/investment for NBI in the tourism sector (hotel and resort sector -new development or retrofitting into existing developments-) to facilitate the development of green plans for investment to deliver cost effective solutions, including some assessment of economic, environmental and social benefits of each pilot. Where investment is available, provide technical support to the design and implementation of the green investment plans in the selected pilot hotel and resort projects.

160. Activity 2.1.5.4: Promotion of certification programs. In terms of the hotels support awareness raising, training and extension to enable them to achieve certification of their facilities and landscapes to the available Green star hotel rating program (including its potential re-evaluation and strengthening) promoted by MOT/GTU and EHA, by introduction of other management systems (e.g. environmental management according to ISO 14001 or energy management according to ISO 50001). Provide technical support to facilitate the creation of an effective management framework including a national certification scheme as incentive for nature-based/biodiversity-friendly tourism, in line with a biodiversity and tourism development monitoring program.

161. **The project will align with UNEA resolution 5/5 ("Nature-based solutions for supporting sustainable development") and the IUCN Global Standard for Nature-based Solutions (<https://portals.iucn.org/library/sites/library/files/documents/2020-020-En.pdf>) to inform and guide the use of the NBS terminology during implementation**

161. EOP Target Indicator:

? At least 20 hotels implemented biodiversity friendly measures

Output 2.1.6. Green investments in renewable energy, energy efficiency and e-mobility implemented through risk mitigation instruments such as long-term incentives with linkages to green recovery stimulus packages

162. Activity 2.1.6.1: Implement sustainable energy technologies to reduce the climate impact of the sector and electric and hybrid propulsion technologies in **land** and marine transportation linked to touristic activities in environmentally and biodiversity sensitive areas such as coral reefs and mangroves.

163. Building on the technical assistance provided to the selected projects under Output 2.1.1 and Output 2.1.3, the project will implement pilot projects on sustainable energy and e-mobility technologies to reduce GHG emissions of the sector and create evidence-based data on such interventions. The selected projects will be linked with the financial mechanism that will be developed under Output 2.1.2.

164. The project will support investments in innovative low carbon and resource efficiency technologies beneficiaries from the tourism industry, including hotels, operators of touristic infrastructure (e.g., tour operators, diving centers) as well as transport operators.

Based on a competitive selection process in cooperation with EHA, the project will select among the hotels and touristic enterprises that submit their investment proposals, covering a range of projects improving the use of energy and resources and provide them with TA and co-financing for implementation. The following types of investments will be eventually considered eligible:

- ? Replacement of lighting systems with LED technology (indoor and outdoor)
- ? Installation of energy efficiency measures (e.g., heat recovery units, chillers etc.)
- ? Improving the efficiency of thermal energy use (heating/hot water preparation, ventilation, A/C systems)
- ? Reduction of cooling load (e.g., reduce heat sources, shading systems, passive cooling)
- ? Renewable energy technologies replacing fossil fuels/reducing grid electricity use (Solar Water Heaters / PVs)
- ? E-mobility solutions and transportation means offered by hotels to their guests and staff for local transportation (to/from hotels to city/airport, nearby destinations), e.g., using electric vehicles or offering bikes for rent, e-boats for diving boat operators.
- ? Installation of energy controls and regulations systems (e.g., building energy monitoring systems, install occupancy-linked controls, occupancy sensors)

During the initial stage of the project implementation, the project will further elaborate the list of eligible climate-smart and biodiversity friendly technologies eligible for support that requires TA and financial support. Beneficiaries will be able to receive TA support in the form of:

- ? Technical audits (e.g., energy, resource efficiency audits)
- ? Pre-feasibility studies, due diligences
- ? Technical design
- ? Linking the beneficiaries with financial mechanism
- ? Guidelines on Procurement (incl. developing technical specifications) to ensure suitable suppliers and maintenance companies to ensure high-quality installation and operation
- ? Construction supervision,
- ? Monitoring & verification

Additional support will be made available through capacity building and training activities, and dissemination of good practice and benefits of realized projects.

The investors receiving support are expected to commit themselves to collecting and sharing with the PMU monthly performance data of the installed systems for the duration of the GEF-UNIDO Project, which will be used for public awareness-raising good practice dissemination.

General conditions and principles for the financial mechanism for pilot investments with GEF funds:

? A financial mechanism for applying GEF contributions for pilot investments will be developed during project implementation (potentially linked with NBE's revolving fund, see output 2.1.2), under which the specific terms of each GEF contribution for each pilot investment will be determined. The principles for the design of the financial mechanism to adhere to will include:

o *The recipients of GEF contributions will be selected based on a **competitive selection process**, with criteria based on several criteria such GHG emissions saving potential, rate of return, co-financing commitment, eligible technology, gender impact, biodiversity principles, quality criteria which will be assessed in detail during the project (see Output 2.1.2, Para 137). Gender dimensions will be part of*

the selection criteria to ensure the project will bring benefit to women in terms of increased access to employment and income.

o *An independent, third-party expert will confirm that the investment cost of the selected pilot investment ? to which GEF funds will be contributed - reflects market value and compliance with the quality criteria.*

o *Minimum additionality of GEF financial contributions.* The share of the GEF contribution towards the investment cost of each pilot investment will be determined on a case-by-case basis for each pilot investment, on the principle of incremental cost? i.e., the GEF contribution will not exceed the anticipated incremental cost of the low-carbon technology versus a baseline conventional technology for the particular pilot investment.

? For demonstration investments supported in the *tourism industry*, a target GEF contribution of USD 1,350,000 shall be available for climate-smart technologies and nature-based solutions. The GEF cost-sharing mechanism shall leverage at least a target USD 12 million in co-financing, with a potential to leverage beyond end of project another USD 15 million through replication and scale-up.

165. Assumptions for the business case are 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, leading to additional environmental benefits in terms of avoided fossil-fuel usage and GHG emission reductions. A competitive financing mechanism for marine electrification will encourage investors to replace old fossil fuel motorboats 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.

166. EOP Target indicators:

? 20 innovative energy and resource efficiency or renewable energy measures supported and implemented in at least 15 hotels

? Electric charging infrastructure available based on 100% renewables for new installations (at least 10 DC charging points (~50kW capacity) and 10 AC charging points (~22 kW capacity) and rooftop PV energy supply (approx. 200 kWp) to provide the electric capacity in a central area of Hurghada near the port (with a combined charging facility for electric boats and electric vehicles)

? Reduction in energy (and water if possible) consumption per guest by an average of 30%, or additional renewable energy capacity by at least 3 MWp

? Number of additional Green Star rated hotels by the end-of-project (15)

? **3-5 pilot investments in electrifying boats across Hurghada (At least 5 boats operating on hybrid or full electrical propulsion technology)**

? 2-3 pilot investments in public e-mobility business cases (At least 10 public buses, mini-buses (e.g., tourist shuttles) and 50 taxi operating on electricity by end of project)

COMPONENT 3. LONG-TERM ENVIRONMENTAL AND ECONOMIC SUSTAINABILITY OF LOW-CARBON INFRASTRUCTURE AND BIODIVERSITY INVESTMENTS ARE ENSURED

167. 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. Component

3 will address the barriers of 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. 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.

Outcome 3.1. Enhanced stakeholder capacities, awareness and partnerships influence behavioral change towards sustainable tourism

Capacity building in terms of embedding comprehensive monitoring and evaluation plans for activities will be critical to guide information capture and analysis in the development of knowledge and knowledge products ? experience notes, lessons learned and best practices. At the same time, stakeholders? participation is crucial for achieving the project objectives. Consultations with the stakeholders during the project preparation reflected strong understanding and interest in supporting the project objectives. The consultations and engagement of stakeholders in converting Hurghada city into a greener city will be further strengthened during project implementation.

Output 3.1.1. Strengthening institutional capacity, communication and awareness tailored for governmental stakeholder and tourism sector, including sustaining the climate MRV system contribute to improved practices

The project will make efforts for the development of institutional capacity to generate knowledge solutions through a strategic use of technical assistance resources, to improve the formulation of policies, strategies, and interventions in a sustainable manner. Where there is limited local capacity in providing knowledge solutions the project will engage, whenever appropriate and feasible, local institutions for knowledge management activities to build their institutional capacity.

168. Activity 3.1.1.1: A training needs assessment and a training plan will be developed targeting national and municipal institutions, private sector with a focus on tourism sector and CSOs. A detailed training program and action plan will be designed during the first year, and the training program will be implemented throughout the project?s duration. The capacity building programme will include sustainable energy interventions and biodiversity friendly measures in tourism and transport sector. The training to tourism sector (e.g., technical experts in hotels, boat operators) will be provided to promote the environmental, economic and biodiversity preservation benefits of such technologies and interventions. In addition, a Sustainable City Capacity Scorecard will be developed to track the improvement of the institutional capacities of the key institutions in planning, implementation, and monitoring of urban, resilient, adaptive, and sustainable development (and others that may be included during implementation). The Sustainable City Scorecard will be completed at mid-term and end of project as part of the project?s M&E (Outcome 4.1).

169. Activity 3.1.1.2: Promotion of communication and capacity building. Undertake communication, information campaigns and training to target the tourism sector and government stakeholders in order to enhance their awareness and capacity to implement guidelines, codes of conduct and standards for ensuring reduction of environmentally harmful practices and promote sustainable tourism outcomes. A suitable local institution (refer to Output 1.1.4) will coordinate the training activities with the intent of ensuring its sustainability and continuity beyond the life of the project. As part of his activity, promote training, awareness and technical support to encourage hotels, restaurants and resorts to take specific and measurable action to protect the environment, in and around their premises such as reducing energy and water consumption, improving inshore management,

establishing demarcating buoys and poster boards to ensure that visitors do not trample coral reefs, overseeing tourist and boating behaviour, organizing regular beach clean-ups, provision of waste collection bins, re-vegetating degraded slopes, etc. The Project will work with the EHA and the Red Sea Governorate to find suitable incentives (awards, recognition, environmental-friendly labels, etc.) to encourage enterprises to get directly involved and support such conservation efforts.

170. EOP Target Indicators:

? A capacity needs assessment and a training plan considering gender dimensions (suitable location, date and time selection to enhance women participation)

? Web-based (news pieces, articles, call to action) or physical dissemination material (e.g., brochures, leaflets) (4) on awareness raising developed

? Draft incentive report (1) (awards, recognition, environmental-friendly labels, etc.) to encourage enterprises to get involved

Output 3.1.2. Participation and contribution in relevant global platforms: international and regional events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation)

171. There is a lack of knowledge in Hurghada among stakeholders from private and public sectors on the possible innovations and interventions that can help the environment and reduce GHG emissions from their daily practice, such as energy efficiency in buildings and infrastructure, possibilities for self-generation of electricity and heat/cooling from renewables, impacts from diesel-generated boats on marine environment, alternative mobility solutions including hybrid/electric vehicles, and others. Therefore, raising awareness and targeted capacity building programs will be a core activity for this project and addressed within this output. Since the main beneficiary and user of such innovations would be the tourism industry, public infrastructure operators, as well as the local authority in Hurghada, this shall take place by various approaches. The knowledge, experiences, and lessons learned from the previous components and activities will be integrated as content in Output 3.1.2 and will be shared across national, regional, and global networks.

172. Activity 3.1.2.1: Share knowledge and dissemination materials from the Greening Hurghada Project on a local, regional, national and global level. Specific outputs and deliverables, such as analytical reports, business cases and lessons learned will be shared via online platforms (e.g. via UNIDO's Open Data Platform, websites of the federations, chambers and NGOs involved as stakeholders) to support scale-up and replication of clean technologies and nature-based solutions in other parts of the country and regionally. Dedicated global platforms will be (for example): the SE4ALL Global Energy Efficiency Accelerator Platform^[14]¹³, the UNIDO-led Industrial Energy Accelerator^[15]¹⁴, the Global Programme to Support Countries with the Shift to Electric Mobility (GEF ID 10114), and Tourism for SDGs. The Global Sustainable Tourism Council's 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.

173. Activity 3.1.2.2: Public promotion of successes in green hotel practices in Hurghada and public sector, including awards. Broad dissemination of successful experiences and best practices will improve the deployment of low carbon technologies in the tourism industry, together with the systematization of experiences and lessons learned from other similar initiatives (e.g. Green Sharm,

GEF ID10117) to be replicated to other tourism destinations in Egypt and throughout the region. The project will organize the Green Tourism Award in collaboration with EHA and ETF. The award aims to promote the tourism companies to invest in measures and technologies towards reducing their climate footprint and preserving biodiversity. This will increase competitiveness in the sector to attract income from eco-tourism. An independent evaluation jury (representatives from project expert, NGOs and government representatives) will be formed-up and ToR including quantified selection criteria (e.g., pointing system) will be developed. Call for applications will be launched annually and evaluated by the jury. The project will coordinate efforts and link to the ETF in promoting and organizing a biennial **?Egyptian Green Tourism Award? ceremony and dissemination event Hurghada**, and other destinations across the Red Sea, to award and promote good practice green hoteliers and tourism industries (e.g. including tour operators and providers of diving and water sports). The project will coordinate with the Green Sharm Project (GEF ID 10117) to mobilize applications from Sharm El-Sheikh as well.

174. EOP Target Indicators:

? Develop analytical reports, business cases and lessons learned are developed and disseminated in 5 different platforms

? Develop ToR for **?Egyptian Green Tourism Award?** ceremony and disseminate the event. The design of the award mechanism will include gender dimensions (e.g., Women Biodiversity Champion award)

? Trainings (2) on the use of tools and methodologies developed by the project (e.g., MRV) (30 participants (40% women)

? Outreach to at least 2 women's organizations through 2 events promoting women's empowerment in target sectors (e.g. networking events) to ensure their participation to project activities (50% women speakers and 40% women participants)

Output 3.1.3. 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)

175. This Output will support the integration of biodiversity-friendly practices and activities in the tourism sector to promote a more holistic and integrated approach to improving their overall environmental management and reduce the negative impacts of unsustainable practices. This would require these enterprises, particularly the hotels and other tourism enterprises and tourism service entities to grasp emerging opportunities based on biodiversity and ecosystem service (BES), securing cost effective options, develop new and biodiversity-friendly products and services and help them integrate BES in their business strategy and actions. The overall intent is to improve the management of marine and coastal resources adjacent to the Hurghada area (including protected areas); reduce the impacts of fisheries and touristic activities, including coral reef impacts to sustainable levels; manage and mitigate the impacts from boating, anchoring, diving and snorkelling on coral reef ecosystems; engage local communities in biodiversity-friendly livelihood and resource management activities to enhance their contribution to conservation; and encourage hotelier and enterprises to improve their conservation management efforts, within and outside their areas of operation.

An indicate list of activities are the following:

176. Activity 3.1.3.1: Review of current situation regarding implementation of environmental measures in tourism sector. Review existing guidelines for the hotels, resorts and touristic entities to ensure their completeness in terms of addressing and enforcing biodiversity-related impacts and their sustainable management. In terms of hotels, Green Star Hotels, already updated their criteria in 2021 and working with new guidelines. In terms of the diving sector, Green Fins is operating with

international guidelines for the sector. The MoTA is working on eco-guidelines for restaurants which should be finalized in 2022. Guidelines for travel agencies are lacking and need to be developed. To facilitate this effort, the project will support two months of national technical assistance support for review of operation and track record of implementation of existing guidelines, management practices, and reporting and enforcement mechanisms in the tourism sector (but also in relation to fisheries activities) to assess gaps and opportunities for strengthening these guidelines and practices.

177. Activity 3.1.3.2: Enhance guidelines, codes of practices and regulations in tourism sector. Based on the gap analysis (Activity 1), provide technical support to facilitate the development of recommendations (guidelines, codes of conduct, regulations and standards, as appropriate) for improving measures to better integrate biodiversity and sustainability considerations (and thus reduce economically and environmentally harmful practices) into (i) fishing, diving, mooring, snorkeling, boating, and tourist recreational activities; (ii) improving landscape management (fertilizer and pesticide applications, water use and IAS management) and shoreline management (shore management, beach clean-up, etc.); (iii) improving vegetation cover (use of native species). Guidelines for the diving and snorkeling and water sports sector already exist through Green Fins managed by CDWS that need to be further promoted especially within the diving and water sports through more awareness trainings for example the dolphin course training and promote the guidelines to other regulatory stakeholders: and the MPA and Marine Police to create a general awareness with the regulatory authorities.

178. Activity 3.1.3.3: Implementation of best practices. Provide technical assistance and support to identify and implement best practices and solutions in a selected number of pilot activities (that would be selected based on the opportunities for making potential change, and might include, but not limited to diving and snorkeling, boating and anchoring, fishing practices, transportation, waste management, etc.). The pilots will be based on an agreed level of co-financing from the relevant private and public entities.

180. EOP Target Indicators:

? Gap analysis report on the existing guidelines in tourism sector (Green Star Hotels, Green Fins) to assess gaps and opportunities for strengthening these guidelines and practices

? Recommendations report (1) to strengthen existing guidelines and practices including gender dimensions

? Training (4) on ESIA procedures (60 participants (40% women)

Output 3.1.4. Improved Protected Area management and community participation, and benefit sharing from conservation and biodiversity-friendly tourism practices

181. This Output will support the improved management of the Northern Red Sea Islands PA that is located at the eastern end of the northern Red Sea near the opening of the Gulf of Suez. The Northern Red Sea Islands area includes 22 islands located in shallow water not more than 100 m depth and covers an area of about 199,200 hectares and is considered one of the priority sites for preserving the natural heritage in Egypt. Its importance is also due to being a station for migratory birds, as it is a rare environment for the growth of mangroves. Unlike most of the Egyptian coastline which is relatively straight with few offshore reefs, the protectorate includes a unique and complex system of islands and coral reefs, which led to all the surrounding waters containing vast areas of submerged and scattered coral reefs in the area with ecosystems such as seagrass beds, mangrove forests, shallow bays and lagoons, fringing reefs, coral patches, and some open waters. The islands are internationally important breeding sites for seabirds, with over 30% of the world's population of the globally threatened White-eyed Gull breeding there, while endangered sea turtles also nest on islands. The northern islands are located on major migration routes for soaring birds. The area is very important for a year-round resident population of at least 200 Indo-Pacific bottlenose dolphins, *Tursiops aduncus*. A smaller group of Indian Ocean humpback dolphins, *Sousa plumbea*, regularly encountered in the coastal waters and

around the coastal reefs. Around 60,000 hectares (comprising 8 of the 22 islands within the southern part of the Northern Red Sea Islands PA) are directly within the Hurghada area. This region of the PA includes concessions for 7 oil companies that include oil wells and rigs, pipelines, piers and extensive transport networks. This area is also covered under open-access fishing activities and some level of tourism activity (diving, snorkeling, recreational boating etc.).

182. The intent of this Output is to further reinforce the planning and management of the Southern part of the Northern Red Sea Islands PA (that comprises a separate management unit), especially regarding the management of biodiversity-destructive economic activities (oil concessions, fishing and tourism activities). It would also provide an opportunity to ensure harmonization of economic development activities with biodiversity conservation and ensure effective planning of tourism and related economic activities and management of threats posed by these development activities.

To achieve this Output, the following activities are envisaged:

183. Activity 3.1.4.1: **Assessment of threats and risks in Protected Areas and stakeholder consensus on threat management.** Review existing information on the PA, threats and associated risks to biodiversity and resources in the PA, in particular for the Southern part of the Northern Red Sea Islands PA, supplemented with additional surveys and assessment, to the extent needed. The threat assessment would then be the focus of improved management actions through the project. **Reaching stakeholder consensus on strategies for threat management.** Consultation with key stakeholders including community, (tour operators, hoteliers, dive centres, boat and diving associations, fisher groups, Hurghada municipality, NGOs and Red Sea governorate) to reach agreement on a visitor management plan and other strategies for management of key threats to biodiversity within the PA, improving monitoring of biodiversity and ecosystem condition, industry management, visitor management, enhancing community participation in ecotourism, ensuring financial sustainability and enforcement. Through a consultative process with the relevant stakeholders, the details of a visitor management plan and supporting strategies will be agreed to manage and mitigate integrated threats to biodiversity, particularly from tourism, fisheries, transport and oil industry.

184. Activity 3.1.4.2: Promotion of best practices and nature-based solutions within protected area. Provision of technical assistance and support to identify suitable best practices and solutions for improving conservation of the PA and threat reduction. This will entail the hiring of national technical assistance (individual or firm/NGO) to help the PA manager to identify best practices and alternative technologies to minimize and manage the specific threats identified. This will tentatively look at reducing impacts from oil industry (oil wells, rigs and platforms, oil transport pipelines; unmanaged tourism activities and construction (hotels, piers, marinas; planning and practices), reef dredging and siltation; integrated management planning and zoning; carrying capacity assessments; enforcing (seasonal) closures of specific parts of the marine and coastal environment to conserve areas that are critical to life histories of species; setting carrying capacity limits and introducing a systems of permits to provide specific controls and/or limits to the boat numbers and boat capacities (diving and snorkeling boats and beyond, different access levels - beginner, advanced, etc.); setting and monitoring fishing access and harvest levels; preparing/updating guidelines for mooring including new anchoring systems; prohibiting or limiting harmful activities and practices, such as water-skiing, at least in vulnerable areas; monitoring; waste management. Performance indicators and certifications will be introduced to guide and assess the improvements, such as the 'Green Fins' initiative for diving centres (which conducts a baseline study of the environmental impact of its diving & snorkeling centre members on biodiversity & its yearly improvement, highlighting necessary policies and changes needed to reduce harmful impacts).

185. Activity 3.1.4.3: **Development of a scientific-based PA management plan and visitor management plan to guide the PA staff to address issues that impact visitors experiences, such as overcrowding, circulation and equitable access, while protecting PA resources and ensuring that natural and cultural resources are protected.** The key components of the visitor management plan will be aimed at directly managing visitor use in the PA, including maximum amounts and types of uses and

transportation means that any part of the PA can accommodate, as well as regulatory and visitor infrastructure measures to manage the amount and time of visitor access. The PA management plan will provide for adaptive management through monitoring of the condition of the PA. The plan will comprise a set of needed interventions, continuous capacity building needs, and management strategies to address identified threats that have been negotiated with relevant stakeholders and to ensure cooperation with all sectors for joint implementation. In addition, the PA management plan will include financial and business guidelines for the Northern Areas PA that would entail building a diverse, stable and secure funding portfolio in order to minimize funding risks, improving financial administration and effectiveness that takes into consideration a comprehensive view of costs and benefits. The financial and business guidelines will review a range of potential financing options and their viability, including more effective use of government allocated budgets, improving use of visitor entry fees, diving and snorkeling fees and other permit/licensing fees charged for various activities within the PA, financing from marine-based tourism (e.g. hotel environment fees), revenue sharing with private sector industry and other enterprises etc. as well as streamlining and building capacity for PA staff to use financial tools and mechanisms, as well as means to improve collection system efficiency and reduction of transaction costs aiming to prioritize biodiversity preservation in a sustainable manner at the PA management.

186. Activity 3.1.4.4: Piloting of targeted management actions. Implementation of the specific activities related to the management plan, including specifically (but not limited to): (i) tracking system for fishing and tourism boats; (ii) management of waste (particularly for daily boats) and single use plastics; (iii) zonation management for daily boats within PA (iv) management of diving and snorkeling activities, including carrying capacity limitation; (v) management of impacts of oil drilling and transport; (vi) visitor management; (vii) supporting certificate programs for sustainable dolphin watch tours, diving and snorkeling, sustainable tours, etc., potentially under existing programs (Green Fins, Dolphin Watch Alliance, etc.)

187. Activity 3.1.4.5: Promotion of community-based ecotourism opportunities. Recruit local technical consultant/support team acceptable to local communities to facilitate development and support implementation of an integrated community ecotourism plan that can provide a sustainable income to the community to compensate for the declining fisheries harvest on account of the restrictions placed on their fishing activities. The project will identify a few interested households to pilot ecotourism opportunities with improved development and marketing. The consultant will evaluate the feasibility in the fishing village of el Quseir to support sustainable fishing tours and other options based on its feasibility. If found viable, the plan would entail agreement with the community members on sustainable ecotourism activities as well as capacity building and training on ecotourism planning and management.

188. Activity 3.1.4.6: Monitoring programme on the status of key species and ecosystems. Technical support, training and skills development for improved and systematic monitoring of status of key biodiversity resources, ecosystem condition to assess effectiveness of management of biodiversity-harmful economic practices. The monitoring program would be supported through partnership agreements between the PA management authorities and NGOs (Dolphin Watch, CDWS, Green Fins, HEPCA, etc.), diving associations, research institutions and universities that are already undertaking monitoring in the region in order to ensure creating a coordinated and collaborative monitoring effort. Through such a partnership arrangement, the project will help create a coral reef and marine mammal monitoring program to enable all these institutions to participate. This monitoring program will provide research materials, data and photographic information that would contribute to improved understanding of the status and condition of coral and marine resources in the region. On the long-term such a partnership can help develop protocols for rescue of marine mammals and help establish an action plan that would enable the diving/snorkeling/water sports centres to effectively respond to reports of injured marine mammals. Through this partnership, efforts will be made to also enable volunteer participation of dive instructors in the coral reef and mammal surveys to be organized by the PA authorities. The private diving/snorkeling sector can be a key asset in the monitoring of the coral reefs and marine environment and a key partner in the efforts to conserve Red Sea biodiversity. The

project will provide technical oversight (national consultant), training and survey guidelines to enable the promotion of the coordinated monitoring program.

189. Activity 3.1.4.7: Promotion of citizen science program. As part of Activity 6 above, the project will seek to create an umbrella citizen science program to operate with clear regulations and technical guidelines, including to the extent feasible to try to facilitate the establishment of a legal mechanism or protocols to promote this concept. The citizen science project can involve the diving tourism to contribute in monitoring of coral / endangered species by reporting through photography and videography taken by divers. CDWS could likely lead with this exercise of updating and improving the existing monitoring guidelines that were created as part of their citizen science program ?Adopt A Reef?, as part of the collaboration with PA in activity 6. As a result, the database of marine habitat and ecosystem services will be updated with the support of volunteers and scientists, which will help identify the health of these ecosystems, the presence of marine life and how species are responding to the damage inflicted within coastal areas (and thus adding to the NCA described under Outcome 1.1). With the data on sightings that citizen scientists provide through reporting of turtles, dolphins, dugongs or sharks, researchers can capture migration patterns, determine home ranges, and detect new breeding grounds of species. This will also further provide PA management authorities the necessary data to establish sanctuary zones or seasonal area closures.

190. EOP Project Targets:

? PA Management Plan

? The visitor management plan (1) including financial and business guidelines for managing and mitigating threats to biodiversity particularly from touristic activities

? Monitoring Programme

? Evaluation report (1) on the feasibility of ecotourism

? 2 workshops on community engagement conducted

? Protocols are developed (1) citizen science program ?Adopt A Reef?

? Status report of coral cover and coral reef diversity (1)

COMPONENT 4. MONITORING AND EVALUATION

Outcome 4.1. Adequate monitoring and evaluation mechanisms are in place, facilitating successful project implementation and sound impact as per GEF and UNIDO guidelines

Output 4.1.2. Project monitoring and reporting

191. The PMU will be responsible for day-to-day monitoring of the project activities, achievements, 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. During the inception phase of the project the PMU will develop a stakeholder engagement monitoring plan.

191.a. The monitoring will include environmental and social management plan, risks and mitigation measures including climate change risks and new risks emerged during the implementation, gender action plan,

stakeholder engagement plan and knowledge management plan.

192.b. The PMU will be responsible for monitoring and collecting all the quantitative (e.g., GHG emission reduction, energy savings-kwh-, gender participation percentage, financial data, co-financing mobilized) and qualitative data (e.g., biodiversity impact, progress on policy activities) as required for annual reports (e.g., PIR). The PMU will submit this project data to UNIDO. UNIDO is responsible to review the data, draft and submit PIR to the GEF.

Output 4.1.2. Mid-term Review

191.c. As per GEF and UNIDO guidelines, a mid-term review (MTR) will be conducted at the second or third year of the project. UNIDO will be responsible for executing MTR. The MTR will include evaluation of the progress on both climate change mitigation and biodiversity. 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.

Output 4.1.3. Terminal Evaluation

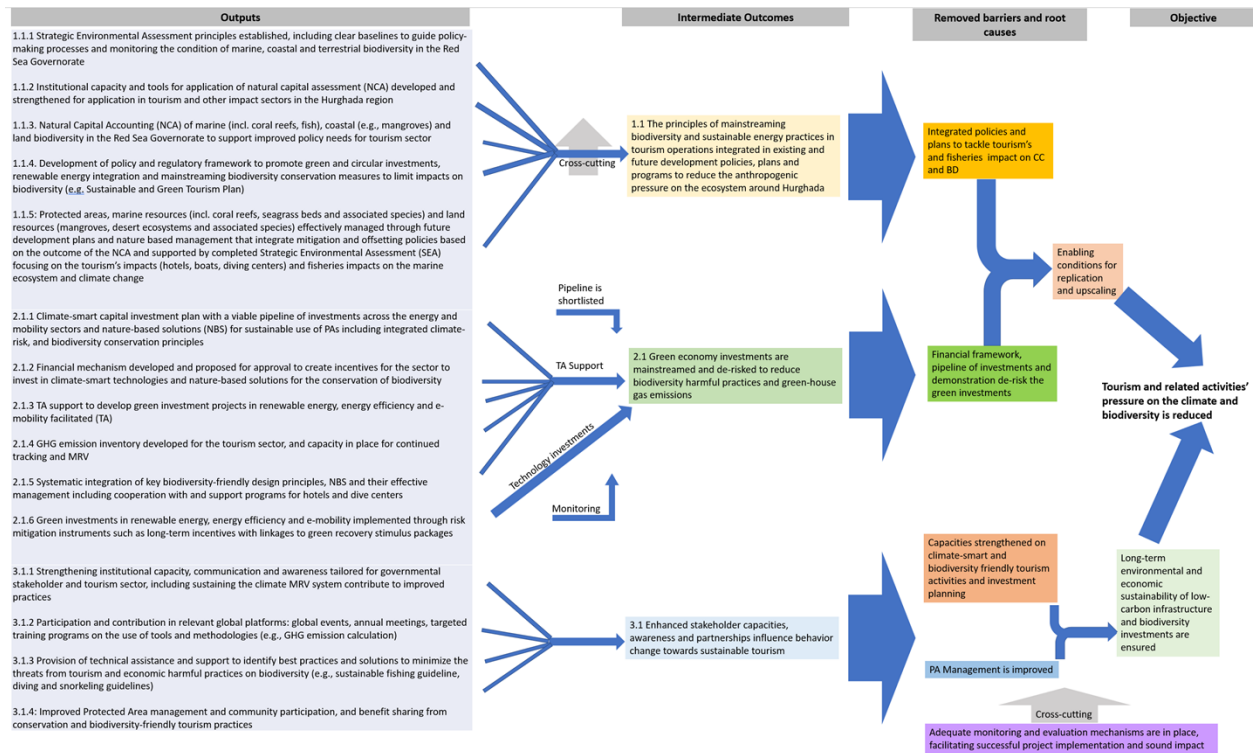
192. As per GEF and UNIDO guidelines, independent terminal evaluation (TE) will be conducted at the conclusion of the project to collect and transfer best practices and lessons learned for future projects. TE will include the evaluation of both climate change and biodiversity aspects. Please see section 9. Monitoring and Evaluation (M&E) Plan for further details.

Theory of Change and Assumptions

The Theory of Change (ToC) diagram referred to in Appendix III shows the linkages between the developmental challenge discussed above and its related causes and drivers. ToC shows that the project's interventions will demonstrate the benefits of shift to low-carbon technologies and integration of biodiversity aspects and sustainable natural resource use into planning policy, planning and guidelines on eliminating the drivers of biodiversity degradation and the pressure on the local environment besides reducing carbon emissions. It also depicts how the project interventions address the root causes followed by barriers related to the development of an integrated sustainable development strategy and implementation along the priority focal areas of energy efficiency, climate change, biodiversity and nature-based solutions to reach the project's objective of reducing environmental pressure from the tourism sector to preserve biodiversity in the coastal city of Hurghada.

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.

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

193. 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.

194. On Climate Change, the 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.

195. 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

196. 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.

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

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

199. 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.

200. 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.

201. 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.

202. 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.

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

203.a. 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.

203.b. The GEF increment will complement the ongoing separate initiatives on sustainable energy and biodiversity 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.

203.c. The GEF support will provide for faster and more transformative adaptation by helping decision makers appreciate and calculate the value of natural capital and ecosystem services and the value of co-benefits provided by climate-smart technologies and nature-based solutions. Ongoing practice shows that the integration of NBS into adaptation planning and infrastructure planning is hardly taking place. Without better information on the ecosystem services and their economic advantages, public and private counterparts will move forward to plan and deploy alternatives with heavy carbon and environmental footprints across their life cycle. This will lock the public infrastructure provider and privately operated tourism industry into GHG-intense natural resources and land uses. Land and natural resources utilisation will increase, biodiversity related challenges will increase, and natural ecosystems will become even more vulnerable to climate change.

204. The project will build on documented outcomes and results and setup a coordination mechanism with various ongoing initiatives in Egypt, in particular, GEF ID 5073, MBDT and GEF ID 10117, Green Sharm projects, to conserve globally significant biodiversity by mainstreaming biodiversity into the overall tourism planning and regulatory frameworks especially at the regional (directorate) and municipal levels. The project will build on the outcomes of these projects (e.g., SEA and other guidelines conducted under GEFID 5073) and apply the recommended interventions, lessons-learned and methodologies into Northern Red Sea region. 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.

205.a. Investments in clean technologies continue to be hampered by market barriers, including lack of affordable financing and instable political and market conditions (e.g., COVID-19 induced travel restrictions) that has made it difficult for tourism facilities to make upgrades and improvements, even when the potential benefits are high. This barrier is not merely a question of liquidity, but of the availability of appropriate de-risking tools. Given the heightened risk environment induced by COVID-

19, it is increasingly difficult to provide financing at a price that is both viable for vulnerable businesses and appropriate given the risk level. In this context, the likelihood of participants benefitting unreasonably from the subsidy is generally low.

205.b. Currently, Hurghada faces challenges to provide sufficient funding from public sources for basic infrastructure and services to meet the needs of a growing urban population and recovering tourism industry, while also making capital investments for forward-looking projects. The ability to mobilize resources to finance investments and interventions at the city level as well as private sector tourism infrastructure are considered crucial for implementation.

206. GEF's financial contribution to this innovative project is critical for its success. 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 TA and financial contribution from the GEF will trigger the shift towards sustainable tourism in Hurghada. The GEF increment will cover a multi-year financing implementation plan up to the year 2030 (or beyond). The financing plan will present goals for the focus areas for intervention (CCM and BD), either mobilised by public sector (municipal, governorate or state investments) or by private sector (e.g. hotels/resorts developments, tour operators, private energy and mobility service providers, etc.). The Project will offer technical assistance in setting up a centralised financing mechanism, proposed as a revolving fund to maximize its benefits over many years beyond the project duration. Together with further TA and financial contribution from the GEF the shift towards sustainable tourism in Hurghada will be triggered.

207. 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.

208. The project is expected to result in GHG emission reduction of total 911,520 tCO₂eq, of which 195,702 tCO₂eq is direct emission mitigation. These figures correspond to 4.26 US\$ (GEF CCM TF) per ton of total CO₂eq mitigated and 19.9 US\$ (GEF CCM TF) per ton of direct emission reduced.

209. The estimation of number of beneficiaries calculated as total of 14,900 beneficiaries of which 6,500 being female.

210. 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.

211. 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.

6) Global environmental benefits (GEFTF)

212. The detailed calculations of the expected GEBs including energy related indicators are given in the Appendix I.

213. The breakdown of total (direct + indirect) GHG emission mitigation of 911,520 tCO₂eq is summarized here briefly. The indirect post-project mitigation of this total corresponds to 715,820 tCO₂eq assumed to be realized through replication in similar tourism enterprises in Hurghada or other cities. The remaining is the cumulative direct GHG emission mitigation of 195,702 tCO₂eq. (which has been lowered compared to the PIF to be more conservative). This amount is further broken down below:

? 20,440 tCO₂eq/year through sustainable energy use (RE and EE technology investments) in the tourism enterprises.

? 3,520 tCO₂eq/year through increasing use of public transportation using electric mobility (buses and taxi), as well as through conversion of touristic boats to hybrid electricity with the underlying assumption that all EVs (land and marine transport) will benefit from electricity charged from 100% of new renewable capacities installed locally.

? Interventions will result in direct GHG emission reductions (without replication) in total of 23,960 tCO₂eq/year for 4 years of project duration since it is estimated that reductions will start occurring only after the 1st year onwards.

214. Taking into consideration the lifetime of investments, the expected direct post-project emissions is calculated as 171,740 tCO₂eq. Therefore, the total direct GHG emission mitigation is 23,960 tCO₂eq + 171,742 tCO₂eq = 195,702 tCO₂eq.

215.a. 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.

215.b. The GEB related to biodiversity including over 5,000 species of which 24% are classified as threatened and 19 endangered marine plant species and 53 species of endangered marine faunal species through improved management of 199,100 ha of protected area and 96,000 ha of marine habitat outside PAs. In this respect, the specific global benefits include enhanced or stable condition of the coral reefs and associated species and as well as enhancement of coral fish diversity as well as maintaining the status of mangroves, seagrass beds and turtle nesting sites. It would also help enhance the status of the larger aquatic species such as the Spinner Dolphin, Bottlenose Dolphin, Dugongs and 4 species of turtles.

7) Innovativeness, sustainability and potential for scaling up?

Innovation

216. The innovative nature of this Project lies in the identification and implementation of combined biodiversity and climate change mitigation practices within the planning and sustainable development of tourism in Egypt. The project will introduce innovative solutions for developing sustainable biodiversity-friendly tourism operations across the Red Sea, which is a significant shift in the approach to current management. Actors from various sectors that are key to tourism development, including the private sector, will be engaged in non-state management of tourism services.

217. The project 'Greening Hurgada' 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.

218. 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 the first time also in maritime transportation, 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). Linkages will be established to similar initiatives, such as 'Green Sharm' (GEF ID 10117), Mainstreaming Biodiversity in Tourism Practices (GEF ID 5073) and programs

established from the financial sector (incl. EBRD-GEFF, UNIDO-GEF SHIP project ? revolving fund) to provide a more effective scale-up of successful initiatives across the country and the region.

219. Ultimately, the project provides an opportunity for a paradigm shift from the prevailing model that pays limited importance to biodiversity conservation and low carbon development to a sustainable model that mainstreams both BD and CCM within standard sectoral planning and practices.

Sustainability and Potential for scaling up

220. The project will remove root causes and barriers hindering the shift to sustainable tourism such as lack of capacity to mainstream natural capital assessment into long-term policies affecting tourism and urban infrastructure and planning development. It will mitigate lack of technical capacities, and missing tools and incentives required to promote robust planning in sustainable and integrated management of energy and resource use, green certification and mechanisms required for reducing ecological impacts on the biodiversity of the Red Sea ecosystem. The projects sectoral approach will ensure the sustainability of the project after its life-time in particular through a more robust policy and sector planning framework, solid baseline data and key performance indicators for monitoring and verification of progress made in regard to the major outcomes and outputs of the project. Furthermore, it will build a financial framework and enhance capacity and awareness of key stakeholders required to be involved in decision-making and implementation. 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.

220.a. The project aims to strengthen Egypt's public and private administration systems in order to incorporate biodiversity and natural capital valuation into their respective decision-making structures and reporting systems for the tourism sector, using Hurghada as a replicable pilot example. The support from the GEF will allow Egypt to directly access global-level expertise and experience to implement the UN SEEA 12 framework and adapt it to the local context. The project will function as a catalyst to drive political commitment to change among existing public sector agencies, both in term of enforcement of existing legal and regulatory provisions for climate change mitigation, biodiversity conservation and sustainable tourism development as well as in developing innovation financial instruments to incentivize sustainable energy investments and biodiversity conservation measures.

220.b. From a global perspective, the project will enhance Egypt's capability to implement a sustainable tourism development policy and practice for Hurghada based on international examples. The project will enhance the capacity of the Ministry of Environment and provide guidelines to influence policy and planning processes in the long term. Under the project, opportunities for exchange of knowledge and experience with other government agencies, tourism sector and private entities as well as with international organizations will yield significant benefits in broadening interest and upscaling successful initiatives that conserve and sustain biodiversity within tourism landscapes and seascapes. To maximize project impact and the potential for scaling up, dissemination and wider replication of best practice can help to unlock the potential of opportunities, private sector partnerships and political support that will be further evaluated and promoted during the project implementation period.

221. The tourism sector is a large consumer of natural resources, electricity, fuel and water. 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 showcase that investing after the challenging COVID-19 times and retrofitting/greening hotels, is a commercially viable business opportunity including those of lower star rating. The project will contribute towards sustainability of the hotel sector, the large number of operators of touristic attractions (e.g. diving, snorkeling, dolphin watching, yachting, surfing, land and sea excursions, etc.) with the introduction of new concepts and standards, certification and tools to support low-carbon technologies and at the same time consider nature-based solutions and reducing its overall impact on biodiversity and resource use. The project aims in the long-term also to

reduce all adverse impacts on the available ecosystem by advancing methodologies to estimate the ecological, economic and social value of all the resources through a natural capital assessment.

222. 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.

222.a. As part of its scaling-up strategy, the project will develop climate-smart capital investment plan with a viable pipeline of investments across the energy and mobility sectors and nature-based solutions (see Output 2.1.1).

222.b. Considering the common problems shared by the coastal touristic cities the project's interventions have a significant potential for scaling-up in other cities located along the Nile (e.g., Cairo), Red Sea or Mediterranean Sea (e.g., Alexandria).

223. 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, MOTA, 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?. 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.

224. 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.

225. A Monitoring and Evaluation Plan has been integrated into project design (Component 4) 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.

226. The project's strategy to ensure scale-up and replication is to develop the supporting policy framework, national examples and build up capacity, particularly within national and local government departments (e.g., EEAA), private sector, research and academic institutions, and financial institutions since these organizations are in the best position to mainstream the interventions of the project. The outputs to be generated by the project will contribute to creating an enabling environment for integrating sustainability strategies into a more climate-resilient investment planning and management. All planned outputs are consistent with, and instrumental to, achievement of the objectives of Egypt's key policies and legislation. Therefore, the combined efforts of the project components are designed in a way to ensure the scale-up of global environmental benefits beyond the life of the project. The project will develop climate-smart, capital investment plan with a viable pipeline of investments up to the year 2030 (see Output 2.1.1) to promote the replication of project's technology/NBS demonstration interventions. The project will collaborate with EHA and ETF to disseminate the investment data, lessons learned and guidelines with the hotels not only in Hurghada but also other parts of the country (e.g., Cairo, Luxor and Alexandria) which is expected to scale-up the investments in sustainable and

biodiversity friendly tourism due to increasing economic competitiveness to align with the national and international momentum towards sustainable tourism over the project lifetime.

227. The project will share project deliverables such as analytical reports, policies, innovative financing schemes and lessons learnt with all the relevant stakeholders in the country and region to support scale-up and replication of the strategic policy framework for the green recovery of the tourism and infrastructure sectors through deployment of more resource/energy efficiency, renewable energy, electric mobility and other clean technologies. Revolving fund (see Output 2.1.2) is designed to provide financial support to enable these investments over the project lifetime. In addition, the project will have potential for scale-up at different levels through global platforms (see Output 3.1.2) project partners? network both government agencies and private sector.

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

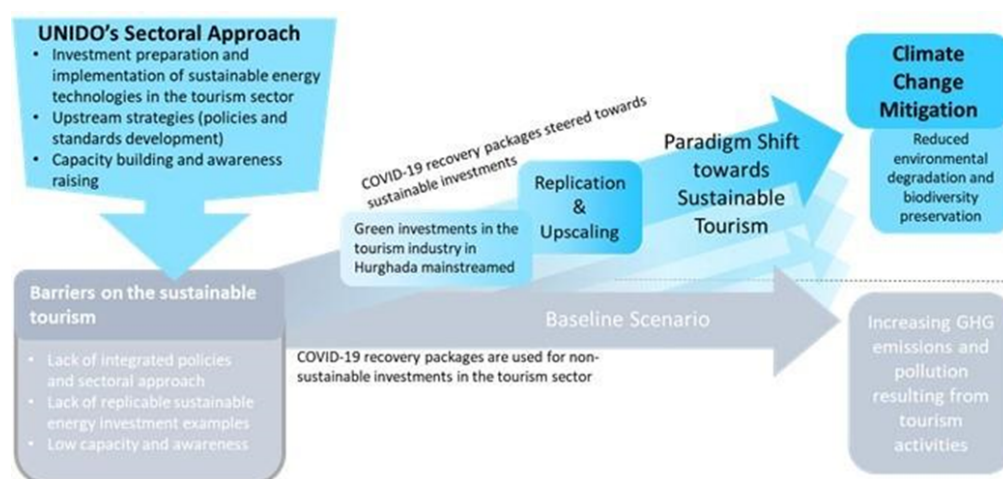


Figure 7: Project's Sectoral Approach to shift the Baseline Scenario

Appendix I: Details on the GHG Emission Reduction calculations

CCM ? Baseline/BAU Scenario w/o GEF Intervention:

With regard to CCM, the energy generation in Hurghada is mainly based on fossil fuels (more than 90%). Most of the hotels and other tourism facilities have excessive energy consumption to accommodate client comfort standards. Water is scarce in the region, resulting in using excessive energy for water services. Energy and water prices at utility scale are subsidized, thus preventing any investment on renewable energy or energy efficiency to be financially viable. There is only one wind farm with a total power capacity of 5.2 MW in the city, and a few other larger scale wind and solar PV projects in projection. Most of the hotels and other tourism facilities have excessive energy consumption to accommodate client comfort standards. Water is scarce in the region, resulting in using excessive energy for water services. Energy and water prices at utility scale are subsidized, thus preventing any investment on renewable energy or energy efficiency to be financially viable.

In the city Hurghada, ~80% of buildings were connected to the natural gas grid (Governorate of Red Sea)[i]. The Governorate of the Red Sea provided data for fuel and electricity consumption from hotels. According to the Governorate, 60% of hotels are using solar thermal boilers, however, verification on the ground during the PPG concluded that information was considered unreliable. Only few hotels have SWH and even fewer of them are functional.

The tourism sector including major hotel & resorts infrastructure in Egypt and especially the Red Sea are characterized by high energy-intensity and electricity demand, mainly for ventilation, cooling, lighting and water heating and partly desalination applications. Latest figures from 2015[ii] have been used to estimate the **final energy demand of tourism sector in Hurghada at 1,196 GWh/year** (including buildings and fuel used for diving and cruise boats), or 36% of the overall city's demand. The **final energy demand of transport sector is approx. 1,303 GWh/year** (gasoline & diesel), altogether both sectors represent approx. 75% of Hurghada's final energy demand.

The energy consumption of tourism sector per source is as follows:

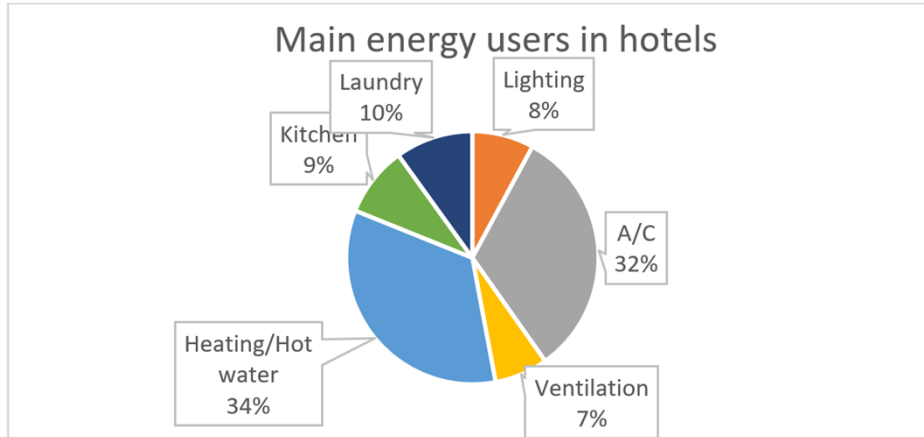
- ? Electricity: 683 GWh/year
- ? Gasoline/Diesel: 305 GWh/year (about 100 GWh/year used for water heating in hotels/resorts ? swimming pools and sanitary use and ~205 GWh/year for diving and safari boats).
- ? Gas: 196 GWh/year
- ? Solar heating: 12 GWh/year, only functioning partly in small number of hotels

From data collected through the SECAP, a hotel in Hurghada consumes in average 7,344 MWh/year of energy, which equals to approx. 3,100 tCO₂eq/year. Additional assessments done with several hotels and resorts in and around Hurghada during the PPG stage have also confirmed that the major energy sources are as follows:

- ? 4,360 MWh/y of electricity (2,389 tCO₂eq/year),
- ? 1,305 MWh/y of natural gas (263 tCO₂eq/year), and
- ? 1,679 MWh/y of diesel (449 tCO₂eq/year)
- ? When hotels are not connected to the natural gas grid, they consume more diesel and electricity instead of gas.

The largest consumers are identified to be heating and hot water demand as well as cooling demand (air-conditioning). Other major energy users are laundries, ventilation, lighting, and kitchen areas.

See the below chart for the major energy users in hotels.



The global GHG emissions of the city of Hurghada are estimated to be **1,338 ktCO₂eq/year** in 2015, equivalent to **4.78 tCO₂eq/person/year**. This is significantly higher than the average emissions per person in Egypt (3.44 tCO₂eq/person/year), which is mainly due to the high weight of the tourism sector. Share of **tourism sector is 491 ktCO₂eq/year** and of **transport sector is 352 ktCO₂eq/year**, according to SECAP estimations.

CCM ? GEF Increment and Global Environmental Benefits:

1) Sustainable energy use in hotels: The conservative assumption is that through the support of the project at least 25-30% of the hotels consider implementation of sustainable measures through feasibility assessments in regards to energy efficiency and renewable energy, from which at least 10% (15) of local 2*, 3* or 4* hotels implement measures leading to an average saving of at least 30%.

(1) Hotels in Hurghada will invest substantial energy efficiency and renewable energy technologies. It is assumed that the investments will be triggered through the GEF project support with TA and a cost-sharing mechanism to reach a larger number of hotels and resorts in the area. For the calculation of the environmental benefits, 3 representative measures have been assumed to have a higher chance for implementation: (i) energy efficient lighting, (ii) energy optimization of ventilation systems by installing variable frequency drives (VFD) on circulation pumps and/or compressors, (iii) and solar thermal hot water preparation to replace natural gas/diesel fuels. For these 3 types of measures, an average of 60% of energy savings compared to the baseline are realistic (more substantial for solar thermal, since it replaces partly electricity and almost 80% of fossil fuels. In addition, hotels will be also encouraged to utilize renewable energies (mainly solar PV) for their own electricity production, thus making them less dependent on electricity being produced in fossil-based power plants.

(2) An average 50-60% of savings (equivalent to ~27 GWh/year) seem achievable only for a few large resorts ? a rather conservative level is about 30% of total energy demand, based on the feedback received from hotels and EHA during the PPG stage. With this benchmark and a list of typical measures foreseen to be implemented in mainly 2*, 3* and 4* hotels, about 16% of hotels from that range (approx. 15 in total) are assumed to be approached with TA support by the project, leading to specific investment measures that have a high replication potential. The individual measures proposed are exemplary, i.e. the hotels are expected to come up with similar or different measures that might result in other energy and GEBs (with smaller or bigger volumes).

The resulting global environmental benefits for the project scenario here are based on the following assumptions:

a. EE indoor lighting (switch to LED technology) with several thousand light points to be replaced (from conventional CFL, halogen, metal halide lamps etc.). Assuming that the majority of hotels will be willing to switch in the short- to medium term, with an average 35% of electricity savings (in average

170 MWh/a) potentially reached. Direct GHG benefits: ~1,390 t/a CO₂eq, or 27,800 t CO₂eq over 20 years.

b. EE ventilation systems (replacement of speed drives at compressors and circular pumps by variable speed drives): Hotels shall be facilitated by the GEF project in realising efficiency gains in ventilation systems and thus energy and GHG emissions savings by introducing VFD. The assumptions made here are based on energy audits conducted for a resort hotel in Sharm El-Sheikh[iii]. Calculated electricity savings per one hotel approx. 107 MWh/a, in total 15 hotels can be supported, leading to a total of 1,610 MWh/a. Resulting direct GHG benefits: ~860 t/a CO₂eq, or 17,160 t CO₂eq over 20 years.

c. Solarthermal energy can be utilised in majority of hotels and resorts, as well as public and private facilities. The penetration of ST technology in Hurghada, however, is yet quite low, and partly are existing systems not properly functioning. It is assumed that with TA support at least 15 ST systems will be installed, reducing the electricity demand (partly for electric heating) by ~20% and the natural gas demand by about 25% (although very conservative assumption). A total energy saving of 14.4. GWh/a (out of approx. 32 GWh/a demand) can be realized, leading to about 5,600 t CO₂ eq, or 112,000 t CO₂eq over 20 years.

d. Rooftop solar PV installations are going to help increasing the share of renewable production and own energy production of hotels in the project region. At least 3.75 MWp capacity to be installed (average 250 kWp in 15 hotels) with a total of 6,188 MWh of electricity potentially produced per year. Direct GHG benefit: 2,780 t CO₂eq/a, or 55,608 t over 20 years.

Calculation sheet ? based on the assumptions above:

EE/RE interventions in hotels	Average consumption per hotel (baseline), MWh/a	Energy optimisation							Economics		
		Baseline MWh/a, selected hotels (approx. 15)	Savings electricity %	Savings electricity MWh/a	Savings gas %	Savings gas MWh/a	Savings total %	Savings total MWh/a, per selected no. of hotels	CAPEX USD (est.)	OPEX savings USD/a (est.)[iv]	SP (year)
- Efficient Lighting	497	7 452	35%	2 608		-	35%	2 608	650 000	160 000	
- VFD based operation of circulation pumps/fans, etc.	429	6 441	25%	1 610		-	25%	1 610	1 400 000	100 000	1
- Solar thermal hot water preparation	2 136	32 041	20%	6 408	25%	8 010	45%	14 418	3 600 000	850 000	
TOTAL EE	3 062	45 935		10 627		8 010		18 637	5 650 000	1 110 000	
- Solar PV installations in hotels (approx. 3,750 kWp)	Annual solar production (Egypt) kWh/kW.a		1 650	Annual electricity generation (MWh/a)				6 188	3 750 000	384 000	

2) Increasing electric mobility in public transportation and tourism mobility: the transport sector is the biggest energy consumer and GHG producer in Hurghada. The EV promotion program to be set up in the frame of the project will gradually increase the share of EVs among major tourism transportation vehicles currently in place (approx. 2,000 buses/minibuses, 4,000 taxis and tuk-tuks and approx. 750 cars).

The following GHG emission relevant results are expected from the project:

- (1) Encourage the roll-out of electric vehicles across the fleet in private and collective vehicles to help reducing the fossil fuel demand gradually; approx. 60 vehicles (10 buses, 50 taxi) are assumed to be switched to electric engines by the end of the project, including a distributed charging infrastructure at key points across the city and greater Hurghada. Due to further scale-up activities and dynamics of the EV market also affecting Egypt in the near term, it is assumed that the number

of replications in the post-project period will reach at least 5 times more (approx. 300 vehicles or ~4%), which is also assumed in the GHG ER calculation.

- (2) As for the electricity provided for charging of EVs it is assumed that at the beginning newly established EV will be charged with the electricity mix from the national grid. By the end of project charging infrastructure provided from TA and financial support will be 100% connected to newly established renewable electricity (estimated 200 kWp).
- (3) In addition, through the established Urban Mobility Masterplan public authorities as well as tourism operators will be engaged in the plan to switch public and tourism-based mobility to alternative modes, including electric mobility, walking, cycling (e.g. electric bicycles).

Assumptions:

Fuel consumption: large buses: 40 l/100 km, taxi/cars 7 l/100 km

Average mileage: buses 66,000 km/yr, taxi/cars 60,000 km/yr

Baseline energy demand (diesel fuel): 2.58 GWh/yr (10 buses) + 2 GWh/yr (50 taxi, cars) = 4.58 GWh/year, equivalent to 1,240 tCO_{2eq}/year.

CO₂ emission factor diesel/gasoline: 0.267 tCO₂/MWh

CO₂ emission factor electricity: 0.533 tCO₂/MWh

Number of vehicles switched to EV with 50% from grid and 50% from renewable electricity: 10 buses, 60 taxis, year 2 and 5.

Electricity demand of EVs:

Vehicle type	kWh/km	km/yr	kWh/yr.vehicle	total kWh/yr
Buses (10):	0.30	66,000	19,800	198,000
Taxis/cars (50)	0.25	60,000	15,000	750,000

Total electricity demand: 0.95 GWh/year, assuming to replace 100% of electricity from grid with renewable energy

GHG emission reduction from grid: 0.95 * 0.533 = 505 tCO_{2eq}/year

Total GHG emission reductions: 1,240 + 505 = 1,745 tCO_{2eq}/year

3) Conversion of touristic boats to solar-powered electric motors: The plan is to demonstrate the conversion of a small number of boats by end-of-project: 2 boats to run on hybrid diesel/electric engines and 3 boats on fully electric propulsion. The assumption is that electricity charged to boats will be also from locally produced renewables (e.g. solar PV plants) provided through new charging stations located at marinas/jetties.

5 boats, average gasoline/diesel consumption: ~50 t/year[v], equivalent to 970 MWh/year, with GHG emissions: 970 * 0.27 = 260 tCO_{2eq}/year

Electric boats: Using electricity from grid at 20% of the overall annual mileage: 970*0,533*0,2 = 103 tCO_{2eq}/year

GHG emission reductions: based on the conservative assumption used for the calculation below, the emission reduction will be up to 157 tCO_{2eq}/year (as result of 260 - 103 tCO_{2eq}/year), in a more optimistic scenario with 100% supplied from renewable sources, the reduction could reach up to 208 tCO_{2eq}/year.

case the electricity will be 100% from grid the emission reduction will be up to 786 tCO_{2eq}/year.

Total annual GHG emission reductions (1)+(2)+(3): 10,335 + 1,745 + 157 = 12,237 tCO₂/year. However, the ER will not materialize fully during the 5-year project lifetime, since activities will gradually start over year 2 and 3. For further details on direct GHG emission reductions see the CCM model below.

Total CCM global environmental benefits:

Direct GHG Emission Reductions

The following table summarizes the direct GHG emission reductions for the project life-time and a 20-years post-project period, referring to the cumulative best operating practices in place in the respective year (net benefit of project over baseline scenario) and considering the useful lifetime of each technology put in place. The emissions factors applied are 0.553 kgCO_{2eq}/kWh for electricity production in Egypt[vi], 0.2kg CO_{2eq}/kWh for natural gas and 0.27 CO_{2eq}/kWh for diesel.

The cumulative direct GHG emissions avoided during project implementation are approx. 23,960 t/a, and approx. 171,740 t/a over the 20 years after project finalization.

The total direct GHG emission reductions are estimated to approx. 195,702 tCO_{2eq}.

Table: CCM Project component ? Direct GHG emission reductions

Pilot Investments - Direct GHG Emission Reductions	Project period					Post-project period																	
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	
Annual Electricity Savings (MWh)	0	1,543	6,172	10,801	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,686	14,306	13,167	12,028	11,185	11,185	11,185	11,185
Hotels & resorts																							
#1: EE lighting	0	235	939	1,643	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	2,105	1,930	1,226	622	0	0	0	0
#2: EE ventilation	0	145	580	1,014	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,191	757	322	0	0	0	0
#3: Solarthermal hot water	0	577	2,307	4,037	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319
#4: PV systems in hotels	0	557	2,228	3,898	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569	5,569
Public infrastructure & mobility																							
#5: EV charging infrastructure (PV)	0	30	119	208	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
Annual Natural Gas Savings (MWh)	0	720	2,880	5,040	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640
#3: Solarthermal hot water	0	720	2,880	5,040	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640	6,640
Annual Diesel Savings (MWh)	0	541	2,165	3,789	5,413	5,413	5,413	5,413	5,413	5,413	5,413	5,413	5,413	5,413	5,413	5,413	4,872	3,248	1,624	0	0	0	0
#6: E-Buses & taxi	0	454	1,816	3,178	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,540	4,098	2,724	1,362	0	0	0	0
#7: E-boats	0	87	349	611	873	873	873	873	873	873	873	873	873	873	873	873	786	524	262	0	0	0	0

Indirect GHG Emission Reductions

The consequential (indirect) emission reductions are calculated using a bottom-up approach, i.e. the direct energy savings for the pilot investments, their useful lifetime of technology, and the total number of replications resulting from the project and post-project implementation and their resulting indirect energy savings achievable.

The bottom-up approach for calculating indirect GHG reductions generally provides the lower extent in the range of possible indirect impacts from the project. The bottom-up replication factor is based on the number of times the project activities are likely to be replicated in the project region over the post-project period (2028 - 2047). The general factor used is 3, representing a conservative estimation for the impact that the project could generate on further replication in the tourism and mobility/infrastructure sectors. e.g., while it is assumed that the project will directly impact 15 (10%) of hotels in Hurghada in implementing climate mitigation measures and nature-based solutions, the assumed replication of 45 (30%) over 20 years project scale-up in addition seems very conservative. In the case of land-based electric mobility, the factor has been increased to 5 due to global dynamics in

prospective electric mobility development and the generally low level of EVs being present on the Egyptian market so far, entering the public and private transportation markets. As for boats the more conservative assumption of scale-up factor 3 has been assumed, again from a very low level of investments being triggered during project implementation.

The consequential bottom-up savings was calculated for cumulative 20 years after project completion in 2027 and are estimated to **715,820 tons of CO₂eq.**

Table: CCM Project component ? Consequential GHG emission reductions

Pilot Investments - Consequential GHG Emission Reductions	Hotels&resorts				Public infrastructure & mobility		
	#1:EE lighting	#2: EE ventilation	#3: Solarthermal hot water	#4: PV systems in hotels	charging infrastructure	#6: E- Buses & taxi	#7: E- boats
Direct energy savings (MWh/a), cumulated	2,608	1,610	14,408	6,188	330	4,633	970
-Electricity (MWh/a)	2,608	1,610	6,408	6,188	330		
-Natural Gas (MWh/a)			8,000				
-Diesel (MWh/a)						4,633	970
Useful lifetime of investment (years)	15	15	20	20	20	15	15
Number of Best Operating Practices Implemented During Project Period	1	1	1	1	1	1	1
Number of Replications Post-project as Spillover	3	3	3	3	3	5	3
Total bottom-up estimate	3	3	3	3	3	5	3
GHG Emission factors							
-Electricity (tCO ₂ eq/MWh)	0.53	0.53	0.53	0.53	0.53	0.53	0.53
-Natural gas (tCO ₂ eq/MWh)	0.20	0.20	0.20	0.20	0.20	0.20	0.20
-Diesel (tCO ₂ eq/MWh)	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Consequential bottom-up savings (tCO₂/a)	62,553	38,616	301,869	197,892	10,553	92,692	11,644
CUMULATIVE	Consequential bottom-up savings 2028-2047 (tCO₂eq)		715,820				

Therefore the total GHG emissions is **715,820 + 195,702 = 911,520 (rounded)**

[i] SECAP Hurghada (2017)

[ii] SECAP Hurghada (2017)

[iii] Source: Energy Audit Faraana Reef Hotel Sharm El-Sheikh (2019)

[iv] Average energy costs: electricity tariff (commercial sector): 0.06 USD/kWh, average price for natural gas & diesel: 0.057 USD/kWh

[v] assessment performed for diving boats in Sharm El-Sheikh (2019)

[vi] Default value based on CDM combined margin approach, from IGES database

[1] Central Agency for Public Mobilization and Statistics (CAPMAS), Statistical Yearbook 2021 (https://www.capmas.gov.eg/Pages/StaticPages.aspx?page_id=5034)

[2] Policy Brief: Mainstreaming Electric Mobility in Egypt (CEDARE, Friedrich Ebert Stiftung, 2020)

[3] IEA, Global EV Outlook 2022

[4] <https://www.iea.org/countries/egypt>

[5] Central Agency for Public Mobilization and Statistics (2019). Statistical Yearbook 2019.

http://www.capmas.gov.eg/Pages/StaticPages.aspx?page_id=5034

[6] Ministry of Finance (2019) Financial Report of State Budget 2019-2020 [in Arabic]. Retrieved from:

<http://www.mof.gov.eg/MOFGallerySource/Arabic/budget2019-2020/Financial-Statement-2019-2020.pdf>

[7] Policy Brief: Mainstreaming Electric Mobility in Egypt (CEDARE, Friedrich Ebert Stiftung, 2020)

[8] World Bank (2002). Arab Republic of Egypt Cost Assessment of Environmental Degradation:

Sector Note. Report No. 25175 - EGT.

<http://documents.worldbank.org/curated/en/814181468751565459/pdf/multi0page.pdf>

[9] <https://www.egypttoday.com/Article/3/112121/Largest-electric-car-charging-station-in-Egypt-opened>

[10] <https://www.linkedin.com/feed/update/urn:li:activity:6892082724740448256/>

[11] <https://www.dolphinwatchalliance.org/>

[12] A multicriteria analysis (MCA) offers a way to identify the most feasible options with maximum impacts among projects that are not infrastructure investment-specific, or when conditions (e.g., resources, data, government requests, or capacity) dictate that an infrastructure assessment cannot be

completed. It entails engaging stakeholders to score individual projects against a set of predetermined criteria, which can be weighed against each other to create a list of prioritized projects.

[13] SHIP is the Solar Heating for Industrial Processes, a project promoted by the UNIDO in cooperation with the Ministry of Trade & Industry and the National Renewable Energy Authority (NREA). <https://shipprojectegypt.org/ship-project-2/>

[14] <https://www.seforall.org/global-energy-efficiency-accelerator-platform>

[15] <https://www.industrialenergyaccelerator.org/>

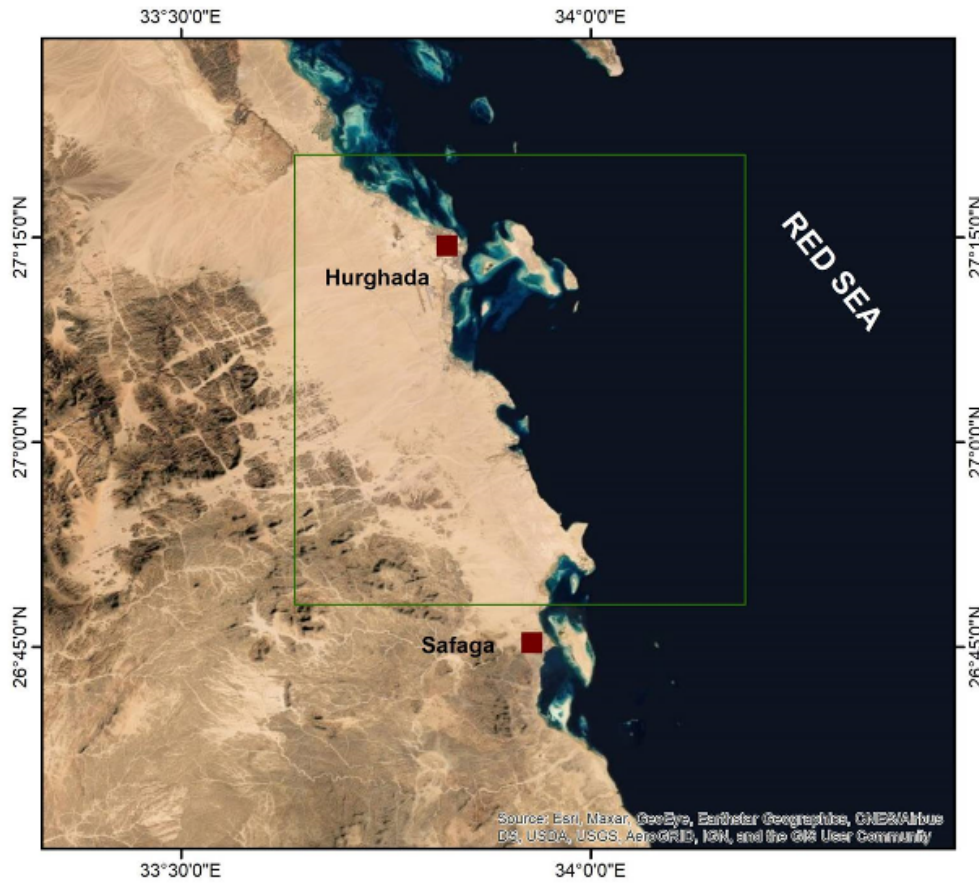
[16] <https://about.bnef.com/blog/battery-pack-prices-fall-as-market-ramps-up-with-market-average-at-156-kwh-in-2019/?sf113554299=1>

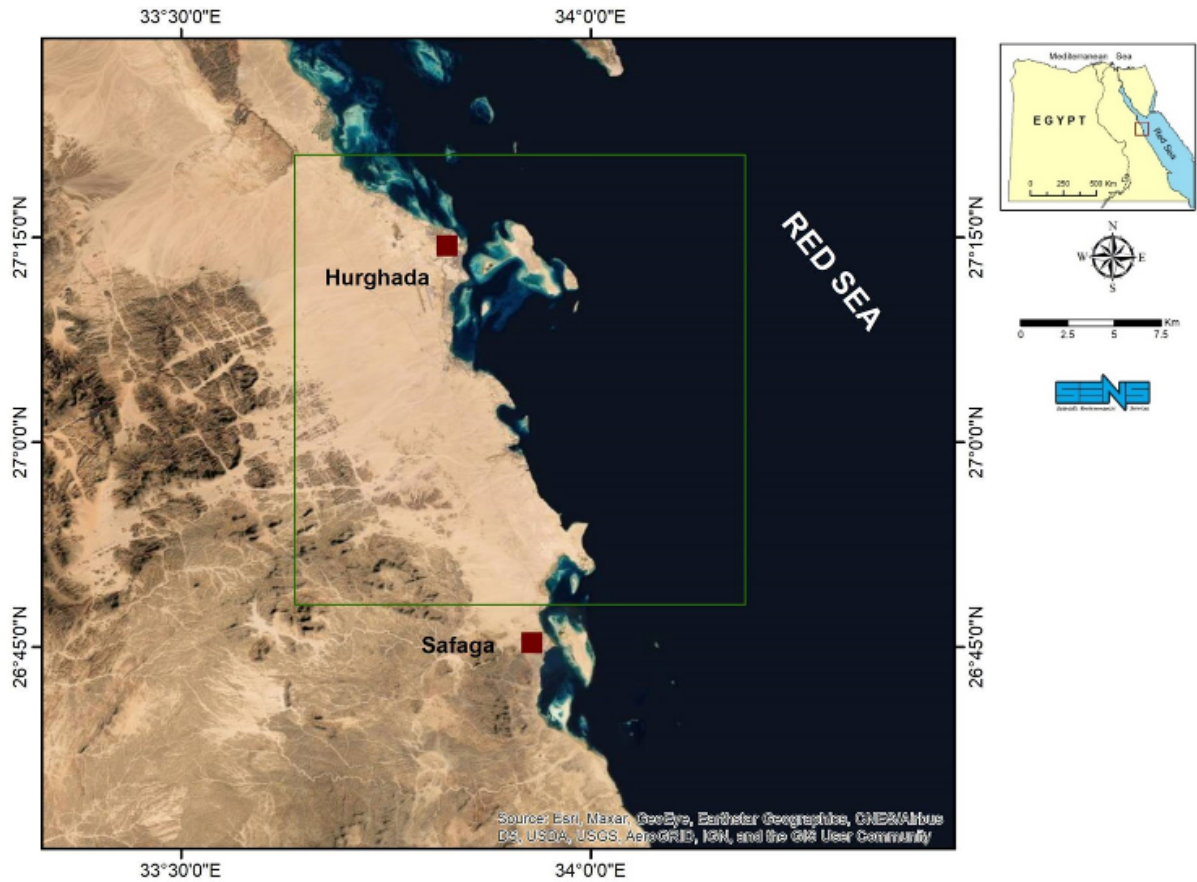
[17] EEAA, Summary for Policymakers, 2017, <http://www.ecaa.gov.eg/portals/0/eeaaReports/SoE-2017/Egypt%20SOE%202017%20-%20SPM%20English.pdf>

[18] SHIP is the Solar Heating for Industrial Processes, a project promoted by the UNIDO in cooperation with the Ministry of Trade & Industry and the National Renewable Energy Authority (NREA). <https://shipprojectegypt.org/ship-project-2/>

1b. Project Map and Coordinates

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





1c. Child Project?

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

n/a

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Table below presents the stakeholders to be engaged and their main roles.

Stakeholder	Mandate and Role in the project
The Ministry of Environment (MOE)	<p>Mandate: The MOE will lead the high-level coordination with other ministries and agencies particularly with the Ministry of Tourism and Antiquities, Ministry of Transport, and Ministry of Electricity and Renewable Energy.</p> <p>Role: The MOE will be in the PSC and ensure coordination among national stakeholders. MoE oversee EEAA as the executing entity of the project.</p>
Egyptian Environmental Affairs Agency (EEAA)	<p>Mandate: EEAA represents the executive arm of the Egyptian Ministry of State for Environmental Affairs. The Administrative Council of the EEAA 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"> ? Formulating environmental policies. ? Preparing the necessary plans for environmental protection and environmental development projects, following up their implementation, and undertaking pilot projects. <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>Role: EEAA is the Executing Agency for the project and a co-financier. EEAA will be involved in all project activities, execute all the project activities under Component 1, 2 and 3, monitor the project day-to-day, collect data and ensure daily coordination of the project stakeholders.</p> <p>The Agency is at the same time 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.</p> <p>EEAA will serve as the Chair of the Project Steering Committee and will be the main Government counterpart responsible for day-to-day project execution, coordination and monitoring of this project as well as ensuring that the project outputs are well-aligned with the Ministry's plans and strategies and the GEF's guidelines and rules.</p>
Nature Conservation Sector (NCA)	<p>Mandate: NCS is the national entity under EEAA that is responsible for the conservation of biodiversity. It is in charge of the management of protected areas but also for improving biodiversity management in production landscapes through sectoral engagement. NCS has an office in Hurghada for the Red Sea Governorate.</p> <p>Role: In the project, the NCS will identify and advance key biodiversity conservation issues and priorities in the targeted project region with the associated PA in the Northern Island Red Sea.</p>

Stakeholder	Mandate and Role in the project
The Operational Unit for Development Assistance (OUDA)	<p>Mandate: 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>Role: OUDA will compliment and support EEAA in the execution of the project by providing administrative functions, building institutional knowledge and national capacities.</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>Role: 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 in technical assistance and capacity building activities.</p>
Ministry of Tourism and Antiquities (MOTA)	<p>Mandate: 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 acts as the focal point for coordination with the MOE/EEAA.</p> <p>Role: The GTU will be a member of the Project Steering Committee to facilitate coordination with the tourism enterprises. MOTA will be involved in mainstreaming activities in tourism facilities to ensure that organizational, technical, and operational precautionary, preventive, and sanitary measures are being incorporated in all hotels (promotion of Green Star), restaurants (eco guidelines for restaurants), and diving sector (further promotion of Green Fins) etc, to ensure that the tourism industry in the Red Sea will be able to continue its operations after experiencing outstanding difficult years. Also, the Project will engage with MOTA to discuss towards setting up the financial support mechanism for green investments in hotels and touristic infrastructures.</p>

Stakeholder	Mandate and Role in the project
Egyptian Tourism Federation (ETF)	<p>Mandate: The ETF is the union of elected tourism industry members from the private sector. It works with MOTA on matters related to tourism planning, environmental considerations and manages the Tourism Workforce Skills Development.</p> <p>It is composed of five tourism industry business associations:</p> <ul style="list-style-type: none"> •the Egyptian Hotels Association (EHA), •the Travel Agents? Association (TAA), •the Chamber of Tourist Establishments, •the Egyptian Chamber of Tourist Commodities and •the Egyptian Chamber of Diving and Water Sports (CDWS) <p>Role: The ETF has a Committee on Environmental Protection and Sustainable Development that deals with matters related to environmental impact of tourism, awareness raising and capacity building/trainings among its federation members and dialogue with governmental entities and policy makers. It promotes the Green Star Hotel rating scheme together with MOTA. The ETF and its related associations EHA and CDWS will be a key partner and linkage to the hotel and tour operators/sports and diving centres and be involved in all project components. Member of Technical Coordination Group.</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>Mandate: 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>Role: 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 Electricity and Renewable Energy (MoERE)	<p>Mandate: The Egyptian electricity sector is managed by the Ministry of Electricity and Renewable Energy (MoERE) and overseen by the Supreme Council for Energy (SEC). The MOERE provided EgyptERA with the authority to set electricity tariffs. It furthermore leads the policy development on renewable energy strategy and the NEEAP (Natl Energy Efficiency Action Plan).</p> <p>Role: MoERE will be member of the Project Board and Technical Coordination Group, and further involved in energy-related stakeholder coordination activities related to the promotion of EE and RE activities.</p>
The New and Renewable Energy Authority (NREA)	<p>Mandate: The NREA functions under the of the MoERE. 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>Role: 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>

Stakeholder	Mandate and Role in the project
The Electric Utility and Consumer Protection Regulatory Agency (EgyptERA)	<p>Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA) is a legal entity affiliated to the Minister of Electricity and Energy.</p> <p>Mandate: 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>Role: EgyptERA will facilitate the connection of the installed renewable energy technologies with the electricity grid</p>
Egyptian Shore Protection Agency (ESPA)	<p>The Shore Protection Agency functions under the Ministry of Water Resources and Irrigation.</p> <p>Mandate: Responsible for managing the shoreline in coastal areas that have socioeconomic value or natural resource value that are threatened by erosion. It develops coastal zone management plans, designs projects for shore protection and all studies for shore protection, and issues license for projects located in the coastal zone area.</p> <p>Role:</p>
Private sector and investors	<p>The following sectors will be represented in the project:</p> <ul style="list-style-type: none"> (i) Tourism industry (Egyptian Hotel Association, hotels, travel agencies, tour/diving operators) (ii) Energy service/management companies (ESCOs, PPA operators) (iii) Sustainable Transport service providers (public buses, taxi, minibus services, e-bike scheme providers) (iv) Subsequently all kinds of design, engineering, installation and operational service providers <p>Different members from private sector will be engaged within the Project, either as beneficiaries, service or technical assistance providers, operators or as facilitators of innovative services and technologies concerning climate-smart solutions, resource efficiency and nature-based solutions.</p> <p>Tourism and transportation sectors will be the main areas where private investment into energy and resource efficiency technologies, including renewable energy and clean mobility will take place.</p> <p>Role: Private sector will be nominated into Technical Coordination Group, related to their specific topics, and participate in TA and capacity building activities. In addition, they will be incentivised to invest in climate-smart projects in hotels and other hospitality structures, energy infrastructure, tourist boats and diving centers.</p>
NGOs/CSOs	<p>The NGO community will act as a multiplier for the project experience. NGOs in Egypt are constrained in their operations, in particular in their ability to receive funds from outside of Egypt.</p> <p>Role: NGOs are actively engaged in a number of projects and is trusted by the Government and the NGO community. E.g. the Hurghada Environmental Protection and Conservation Association (HEPCA) is well-respected in the Red Sea area and can support both in particular in providing a voice for the conservation NGO community in the scenario planning and in setting up and (and potentially implementing) a natural capital assessment (NCA) as a part of component 1.</p> <p>At a lower-level associations and other recognised civil society organisations, such as the Hurghada Free Youth Association, are important in enabling local community and women representation and to some extent participation in the tourism market.</p>

Stakeholder	Mandate and Role in the project
Financing sector (development banks, commercial banks, funds)	<p>The National Bank of Egypt (NBE) provides financial support to its clients from the tourism industry that are investing in clean technologies and other environmentally-friendly measures in their facilities. The bank is increasingly prioritize on providing structured financing to the projects on reducing impact on the environment including renewable energy and energy efficiency technologies and sustainable management of natural resources.</p> <p>The Central Bank of Egypt (CBE), along with the banking sector as a whole, plays a pioneering role to support the national economy and develop and revitalize the various economic sectors.</p> <p>Role: The Project will offer technical assistance in setting up a single centralised financing mechanism, e.g. a "Green Tourism Development Fund", or use the existing mechanisms; e.g. UNIDO is currently extending the scope of the existing Revolving Fund hosted by NBE to include the tourism sector as well. The mentioned Revolving Fund is established under the GEF-5 project "Utilizing Solar Energy for Industrial Process Heat in Egyptian Industry" (SHIP) (GEF ID 4790). Furthermore, the project will setup a coordination group between governmental stakeholders, financing sector (e.g. NBE, CBE, EBRD, commercial banks) and the Egyptian Tourism Federation to develop a long-term financing framework for hotels and touristic infrastructure operators (see Activity 2.1.2.1).</p>
EBRD-GEFF	<p>Mandate: The EBRD's Green Economy Financing Facility (GEFF) helps Egyptian businesses invest in high-performing technologies by providing financing through local participating financial institutions. Since 2017 in operation, offers TA (preliminary and full assessments) of energy efficiency and renewable projects in private sector (mainly industries, and to some extent also in tourism industry).</p> <p>Role: The Project will engage with GEFF to identify possible energy and resource efficiency financing links with tourism facilities and banks as well as opportunities with the involved banks to set up a long-term financing scheme for the hotel sector.</p>
Academia	<p>Role: The project will engage with universities in the component 1 exercise to conduct NCAs and development of policy and regulatory framework for promoting green and circular investments. E.g. several departments of Cairo University will be mobilised to provide policy and technical/scientific expertise. The Faculty of Science of Suez Canal University will be able to support the biodiversity activities.</p> <p>In addition, the Arab Academy for Science, Technology and Maritime Transport has significant expertise in the design of sustainable and green ports for international hybrid yachts, sailing yachts and e-boats, through developing thorough design of floating solar panels, and water desalination systems, fast charging station; or, developing a new code for safe navigation in reefs, and conservative areas with silent, environmental friendly hybrid boats, through developing best practices of transforming current motor boats, fishing vessels and yachts into either hybrid or fully-electrical powering marine crafts.</p>

Stakeholder	Mandate and Role in the project
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>Mandate: 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>Role: The project will collaborate closely with GAFRD on project activities involving fisheries and relevant policies.</p>
Local Fishermen	<p>Local fishermen around 1200 working on 300 boats, put a lot of pressure on marine life as a direct reason for overfishing, fishing during the yearly banning period and unsustainable fishing practices.</p> <p>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.</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 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>Mandate: 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>Role: 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>

<p>Marine Science Department of Suez Canal University</p>	<p>Mandate: The Department undertakes general and applied research, long-term monitoring, technology transfer, education and training and policy and planning support in marine areas.</p> <p>Role: The Marine Science Department will be involved in the project by being a key trainer in NCA related aspects related to marine sector, participate in provision of training and being able to institutionalize this training within the department</p>
<p>National Institute of Marine Oceanography and Fisheries</p>	<p>Mandate: Mandate includes clear strategic priorities to benefit from marine resources in the country. Focus on sustainable management of human activities related to the Red and Mediterranean Sea and the environment, research in the fields of applied marine geophysics, marine geophysical natural hazards and projects, to cultivate notable scientists through top quality marine geophysical science education and experiences</p> <p>Role: Under the project, the institute will be potentially a key trainer in NCA related aspects related to marine sector, participate in provision of training and being able to institutionalize this training within the institute.</p>
<p>National Statistical Office of the Central Agency for Public Mobilization and Statistics (CAPMAS)</p>	<p>Mandate: CAPMAS is Responsible for providing accurate and reliable statistics on Social, Economic and Environmental conditions for Decision-makers, Policy makers, Public, Media, Business community, Researchers and International community. It maintains a national statistical system (NSS) in the State that is in line with globally approved statistical practices in order to ensure their compliance and harmonization to the best approved international standards and following the highest quality standards in practicing of statistical work and official statistics</p> <p>Role: As part of the project, CAPMAS will be involved (e.g., knowledge sharing) with the NCA data management, analysis and validation.</p>

Please provide the Stakeholder Engagement Plan or equivalent assessment.

The Stakeholder Engagement Plan (SEP) with a full list of stakeholders and their roles is included in the Annexes. This will be reviewed, refined and adopted at the Inception Workshop and approved by the Project Board. It will ensure that stakeholders are given the opportunity to participate meaningfully in project implementation, monitoring and evaluation.

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

Summary of initial stakeholder engagement activities

1. During the project preparation (PIF and PPG stage), several stakeholder consultations were held with an objective of project design and activities to be as inclusive as possible and in line with the existing Acts, Rules and Regulations and the Government of Egypt's priorities and long-term plans.
2. The following summarizes the stakeholder engagement activities to date:
 - ? During the PIF preparation meetings were held with Ministry of Environment including NCS, Ministry of Tourism and Antiquities, Representatives from Hurghada Hotel Sector/EHA Branch in Hurghada
 - ? A series of stakeholder meetings on the occasion of the PPG consultant team's two in-country-missions have taken place between November 2021 and May 2022.
 - ? Presentation on project objectives and components for creation of awareness and seeking feedback through bilateral and group meetings, focus group discussions with gender focus. The project was also covered in local media explaining about the project and its benefits to the Country and Region at large.
 - ? The target groups and users were interviewed to understand their possible engagement priorities, preferences and gender aspects covered.
 - ? Bilateral and group meetings were conducted with the relevant agencies and private sector representatives during the project formulation phase.
 - ? Mission 1:
 - o The mission consisted of two parts: meetings in Cairo and meetings in Hurghada over a period of 7 days. The mission was carried out by representatives from UNIDO Cairo office and a team of International and national experts. UNIDO was represented by Dr. Gihan Attia and Ms Sondos Eissa, while the international experts included Mr. Andreas Karner, Malcom Jansen (online presence) and the national experts team included Dr. Amr Abdelaziz, Dr. Ahmed Wafiq, and Dr Magdy Elalwany. Ms. Hoda Elshawadfy Head of GEF Unit of EEAA accompanied the team during the part of the mission in Hurghada. The meetings were conducted with representatives from governmental authorities, private sector and other key stakeholders for the implementation of Greening Hurghada project.

o Meetings held:

1.	? Ministry of Environment/EEAA (Climate Change Department, Nature Conservation Sector)	? Dr Aly Abousenna, CEO EEAA ? Dr. Hoda Shawadfy, Assistant Minister, GEF Unit ? Dr Khaled Allam, Nature Conservation Department, MoE
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2.	? Ministry of Environment ? Regional Branch Office for the Red Sea	? Eng. Maher Rashwan (Regional Branch Manager) ? Dr. Bekhit Bore (Environmental Quality Manager) ? Dr. Tamer Kamal (National Protectorates manager) ? Dr. Ahmed Gallab (North island Protectorates Manager) ? Dr. Mohamed Khalaf (Inspection Department Manager)
3.	? Ministry of Tourism and Antiquities	? Dr. Naswha (Advisor to Minister on sustainability) ? Eng. Emad Hassan (Consultant, former Energy Advisor to the Minister of Tourism and Antiquities)
4.	? UNIDO Country Office Egypt	? Dr. Bassel ElKhatib (Director Egypt) ? Mr Ahmed Rezk (Deputy Director Egypt)
5.	? UNDP Country Office	? Dr Mohamed Bayoumi, Energy and Climate Change Program Officer
6.	? General Authority for Fish Resources Development (GAFRD)	? Dr. Salah Mesalhy, Chairman GAFRD
7.	? Center for Environment and Development for Arab Region and Europe (CEDARE)	? Dr. Hossam Allam, Regional Director, Sustainable Growth Division ? Ghada Moghny, Program Coordinator, Sustainable Growth Division
8.	? National Renewable Energy Authority (NREA)	? Ehab Ismail (Vice Chairman for Technical Affairs) ? Ehab Farouk Abd El-Aziz (General Manager of Tests)
9.	? Egyptian Hotel Association EHA	Mr. Alaa Akl (Chairman of Egyptian Hotels Association, Head of Green Star Steering Committee), CEO of Jaz Hotel Group
10.	? Chamber for Diving and Water Sports	Ms. Leena Challitta, Coordinator of the Environmental Affairs Department Mr Moustafa
11.	? Marine Safety Authority	Eng. Mahmoud Shaaban (Technical Expert)

12.	? HEPCA	Dr. Mahmoud Hanafy, Acting intermediate director, Head of R&D
13.	? Youth freedom NGO	Eng. Osama Ezzat, Hurghada Free Youth NGO Mr. Magdy Zaki, Legal advisor
14.	? Jaz Hotel Group	? Eng. Moatasem Mounir, Sustainability Director of the Group
15.	? Labranda Hotel	? Mr Ali Hassan, Chief Engineer
16.	? Fort Arabesque Hotel	? Mr Ahmed Abo Sayed, Chief Engineer

A series of meetings were held after mission online, with the following representatives:

17.	? Central Bank of Egypt	? Mr Ali Walid, Sustainability Manager
18.	? Dolphine Watch Alliance (NGO)	? Mrs Angelika Ziltener, Marine Biologist, President
19.	? Arab Academy for Science, Technology and Maritime Transport	? Dr Ahmed Swidan, Vice Dean of Research for Maritime affairs
20.	? UNDP-GEF Project Mainstreaming BD conservation in Tourism	? Mr Mohammed Elewa, Project Manager:
21.	? Rabbit ? cleantech transportation company	? Mohamed Mansoury, Business Development Manager

? Mission 2:

- o The mission included a one-day series of meetings in Cairo and meetings in Hurghada, including the Validation Workshop that took place on 21 April 2022. The mission was carried out by representatives from UNIDO Cairo office and a team of International and national experts. UNIDO was represented by Dr. Gihan Attia and Ms Sondos Eissa, while the international experts included Mr. Andreas Karner, Malcom Jansen (online presence) and the national experts team included Dr. Amr Abdelaziz, Dr. Ahmed Wafiq, and Dr Magdy Elalwany. Ms. Hoda Elshawadfy Head of GEF Unit of EEAA accompanied the team during the part of the mission in Hurghada. The meetings were conducted with representatives from governmental authorities, private sector and other key stakeholders for the implementation of Greening Hurghada project.
- o Meetings held:

1.	? Ministry of Transport	? Eng. Mona Kotb, Transport Planning Authority
2.	? Mowasalat Misr	? Mr Mohsen Sabra, BP Business Devt. ? Mr. Ahmed Elleithy (COO)
3.	? Egyptian Hotel Association (EHA)	? Mr Dr Khaled Soliman, CEO Serenity Hotels Group, Vice-chairman of EHA RS branch
4.	? HEPCA	? Dr. Mahmoud Hanafy, Acting intermediate director, Head of R&D ? Nour Farid, Board member and commercial director ? Mr Nader Gebril, Biodiversity Expert
5.	? Ministry of Environment ? Regional Branch Office for the Red Sea	? Eng. Maher Rashwan (Regional Branch Manager) ? Dr. Tamer Kamal (National Protectorates manager) ? Dr. Ahmed Gallab (North island Protectorates Manager)
6.	? GAFRD	? Eng. Essam Mostafa, RS Branch Manager
7.	? Red Sea Governorate	? Mahmoud Khalil - Head of Env't. Administration
8.	? Abou Ghaly Motors (AGM)	? Mourad Ashour, CTO Abou Ghaly ? Youssef Agiez, Business Lead London Cab

3. The project will effectively engage the stakeholders involved in the project to get their support and guide the project implementation to achieve higher results.

? Project outreach will use measures and tools such as the project website, UNIDO energy accelerator website, local, national and international media (print/audio-visual), workshops, trainings, publications, etc.

? The PMU and the Project Board will ensure that the Gender Action Plan (GAP), Environmental and Social Management Framework (ESMF) recommended by the project are pursued and implemented. The various groups especially women will be engaged during the consultation meetings, prioritized to avail the program and be included in the different capacity building

programs. The project will also ensure that it is in line with all national policies and strategies/programs and be as inclusive as possible.

- ? Meetings, monitoring visits, surveys and written communications will be used to receive feedback to continue the ongoing dialogue as well as during the course of implementation.
- ? The project will follow a participatory approach in decision making by engaging all the relevant stakeholders. The Government agencies and the private sector will be actively involved during the project implementation.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

1. 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. At least 40% of the total number of project beneficiaries (6500) is expected to be women.

2. The project will mainstream gender issues through several strategies including: i) PMU composed of gender-sensitive staff, whose awareness of the importance of gender equality and skills in incorporating gender into their work are enhanced through capacity development; ii) PMU recruitment will consider gender balance in the selection of candidates; iii) participation of women in the development of the implementation plan and sustainable development strategy for Hurghada, in multi-stakeholder platforms and other project processes; iv) specific training to build the capacities of public institutions for mainstreaming gender into the aforementioned plan, in institutional processes (e.g. gender sensitive budgets, generation of gender disaggregated data) and in citizen participation protocols, among others; v) promoting participation and involvement of women in project activities (e.g. training activities); iv) developing actions to promote masculinities in institutions; and vi) awareness raising on gender issues in the private sector.

3. **A Gender Analysis and Action Plan for the project is included in the annexes.**

4. 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 [1] the Convention on the Elimination of All Forms of Discrimination Against Women.

5. 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 [2] and compete with their male peers in education as well as employment. 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 women's participation in the industrial and manufacturing sector
- ? Lack of available baseline information from business associations [3]

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:

- ? 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 and participants to other important 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. The qualitative and quantitative data are collected and compiled from relevant authorities, women associations, NGOs, as well as the action points and information given in the Gender Analysis and Action Plan annex will be integrated into the policy instruments under Component 1 and PA management practices under Component 3.

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

Yes

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

1. The project will engage with the different private sector companies such as 3 stars and 4 stars hotels, diving boat operators, transport providers, energy service companies, and companies providing consultations, technical design, engineering and installation. In particular, the project will provide technical assistance and link tourism enterprises with financial mechanism and provide grant support to de-risk investment. In addition, the project will ensure that the private sector will involve policy making processes through participating to workshops.

2. 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 and national ? hotel chains (namely; Hilton, Marriott - Serve360, Movenpick ? JAZ Group etc.). For example, Marriott International commits to reduce carbon intensity by 30% and achieve 30% renewable electricity use by 2025. Hilton hotels are pursuing continued use of renewable energy and aims to reduce carbon intensity by 61% in 2030. The JAZ Group has 46 out of its 56 hotels certified under the Green Star programme. 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

centres 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.

3. 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.

4. The project will elaborate a coordination mechanism between the mentioned financial institutions and different financing products available for the installation of green technologies and nature-based solutions and link up major representatives from finance institutions, policy makers and tourism industry (e.g. MOTA, CBE, NBE, EBRD) to support in the long-term the investments in various areas of intervention such as: solar water heaters, energy efficient cooling and lighting systems, electric mobility, etc.

5. 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.

6. 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.

7. 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.

8. In addition, private sector will benefit from targeted capacity building and awareness raising programs.

9. Egyptian Hotel Association's local branch will facilitate the reach-out, collaboration and knowledge sharing among the hotels in Hurghada.

5. Risks to Achieving Project Objectives

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

1. The risks associate with the project are detailed in the Risk Table below. This includes the risks that could impact project achievement. Social and environmental risks are provided in detail in the Environmental and Social Management Plan (ESMP) annex.

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
1	<p><u>Political</u>: Political instability and security concerns threaten the consolidation and further development of tourism in Egypt, undermining the value creation needed for the sector to willingly adopt a more sustainable business model.</p>	<p>MODERATE</p> <p>P = 2</p> <p>I = 3</p>	<p>Political stability is now secured and there are large plans for investing in the country in particular. The uniqueness of Egypt's cultural heritage and the quality of its tourism product and climate make the country's tourism sector resilient, and after the crisis between ended in 2018, tourism numbers have been increasing again in the last years.</p> <p>While the project is unable to proactively manage such a high-level risk, it could react in terms of adaptive management within the resources it can make available should the risk materialize ? such as by deploying temporary support to tourism-dependent communities and businesses.</p>	<p>PEE, UNIDO</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
2	<p><u>Operational Risk:</u> The disruptions in the supply chain due to several reasons including pandemic and recent emerging socio-political risks has affected every part of the value chain, from raw material sourcing to end customer. The disruptions in the import/export materials can continue impact commercial, financial and organizational operations of the companies. The logistics disruptions and over reliance on a limited number of third parties can cause production delays, reduces to willingness to invest in the new technologies.</p> <p>Recent Egyptian CBE importing requirements announced in February 2022 caused some disruptions in the Egyptian supply chain. Hence, it was announced in May 2022 that manufacturers will get an exemption from Letter of Credit requirements for some imports and to decrease the pressure off the Egyptian economic situation. CBE will support importers to make sure they have access to Foreign Exchange.</p>	<p>MODERATE</p> <p>P = 2</p> <p>I = 3</p>	<p>The PEE will integrate the mitigation measures of this risk (e.g., alternative technology supplier in case of delays) in the Procurement Planning that will be developed after signing execution agreement. During the project execution the PEE will conduct close engagement with the private sector and monitor the conditions of the local market supply channels and geopolitical risks during procurement processes.</p>	<p>PEE, UNIDO</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
3	<p><u>Operational</u>: Lack of technical capacity in hotels to assess and implement resource efficiency and other environmental projects. Anticipated cost savings and environmental benefits may not materialize, and hotels may risk losing competitiveness in the international tourism market.</p>	<p>MODERATE</p> <p>P = 2</p> <p>I = 3</p>	<p>Many hotels have shown interest during the PPG stakeholder consultations to invest in energy and resource efficiency. The project will support hotels with capacity building and training activities, specific TA during design, selection and implementation of pilot projects in a number of hotels, to demonstrate the technical and financial feasibility of the technologies and the pilot projects results will be documented and shared with the owners of hotels to promote replication. Also, hotels will be encouraged and invited to submit their proposals and successful business cases promoted during a biennial Green Tourism Award?.</p>	<p>PEE, UNIDO, MOTA, ETF, FI</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
4	<p><u>Regulatory</u>: Effective implementation of enhanced protection and regulations for biodiversity in the marine PA near Hurghada is undermined by a growth of tourism development, tourism numbers and fishing pressure.</p>	<p>MODERATE</p> <p>P = 2</p> <p>I = 3</p>	<p>Special attention will be paid to identify the most effective conservation measures in the PA and to identify and resolve barriers to effective enforcement, including a PA management plan. The project will look at updating PA zoning and categories and at enforcement regimes and resources. It will also monitor the status of corals and marine ecosystems to enable effective measures to reduce impacts from diving snorkelling and movement of boats. The project's interventions will solely focus on existing tourism enterprises and not on new investments.</p>	<p>PEE, UNIDO, NCS</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
5	<p><u>Financial</u>: Lack of financial mechanisms to support climate-smart investments in hotels. Lack of financing has been one major barrier for hotels in the past and will further reduce their engagement, in case not being solved within the project.</p>	<p>MODERATE</p> <p>P = 3</p> <p>I = 4</p>	<p>Different national banks (e.g., NBE, CBE) and development banks (like EBRD) are offering credit lines to support investments in hotel facilities including on EE/RE. The Project will engage with MOTA, ETF, hotel owners and financing sector to develop short and long-term support mechanisms (within and beyond project duration) or extend the scope of the existing financial mechanism with NBE.</p>	<p>PEE, UNIDO, Banking sector</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
7	<p><u>COVID-19 Risk:</u> the COVID-19 pandemic has had a significant impact on the tourism industry globally and in Egypt, due to the resulting travel restrictions as well as slump in demand among travellers. Egypt and especially the Red Sea has been equally affected by the travel restrictions, which increases pressure on tourism facilities after years of low tourist arrivals in the region. Financial pressure on operators is expected to be prolonged for some facilities, especially owner-led hotels, which will impact their willingness to resume investments in energy and resource efficient equipment.</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[1]. The COVID-19 pandemic requires regular scanning for emerging risks to ensure delivery of results, prevent unintended harm as a result of the project activities, and adapt quickly in the rapidly changing context.</p> <p>Should the new wave of pandemic will occur, the political focus to support the project to its full extent could weaken.</p>	<p>MODERATE</p> <p>P=2</p> <p>I=3</p>	<p><u>Opportunities:</u> 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 benefits. Another opportunity could be that the touristic enterprises such as hotels would plan retrofitting and maintenance works (such as</p>	<p>PEE, UNIDO</p>

#	Risk Category & Description	Risk Impact & Level/ Probability[*]	Risk Treatment / Management Measures	Responsibility
			<p>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> <ul style="list-style-type: none"> - To address these risks, a risk management strategy to address COVID-19 risks should be in place for the project to provide clarity on how such risks should be regularly screened to ensure the PSC has relevant data for effective decision making and to determine when mitigation techniques is required. - As the project involves close engagement with communities, 	

#	Risk Category & Description	Risk Impact & Level/ Probability[*]	Risk Treatment / Management Measures	Responsibility
			<p>partners or workforce then it needs to have clear procedures and safeguards in place to protect people and prevent the spread of COVID-19. This can include the use of remote methods, when possible, such as; protective equipment, maintaining social distancing, and other measures recommended by WHO and national authorities. Such safeguards need to be conveyed to all partners, third parties, contractors. If adequate safeguards are not or cannot be put in place then such activities should be suspended until a time when appropriate safeguards can be implemented.</p> <p>- A Risk Register will be created and updated regularly to track, monitor, and escalate</p>	

#	Risk Category & Description	Risk Impact & Level/ Probability[*]	Risk Treatment / Management Measures	Responsibility
			<p>(when needed) COVID-19 risks at all levels. This ensures clear accountability and risk ownership. It will also enable aggregation of risks to better be able to identify where the highest risks are, if there are common risks that require a programmatic or corporate approach/tools, where support is needed, etc.</p> <ul style="list-style-type: none"> - WHO's library of country and technical guidance for COVID19 will be used as a reference guidance. - The project will support mainstreaming activities that help hotels and touristic infrastructure to operate safely under COVID-19 conditions, i.e., to take all precautionary, preventive, and sanitary measures to ensure operation. - Regarding the risk related to potential 	

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			<p>COVID resurgence, the project will amend its communication strategy towards how it provides opportunities for economic growth and tourism sector recovery, as well as increased resilience to future shocks and positive impacts on livelihoods. Investing in clean technologies including renewable energy will contribute to reducing risks also posed by COVID and eventually reduce costs to operators and contribute to a greener recovery.</p> <p>- The PMU will monitor the development of the pandemic and inform the PSC proactively to re-assess the risk and update project work plan and identify management solutions (e.g., virtual meetings) to ensure</p>	

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
			opportunities can be seized while minimizing harm.	
8	<p><u>Social and Environmental:</u> <u>Risk.</u> Enforcement of more restrictive access and practices especially in the marine/coral ecosystems around Hurghada could cause further economic hardship to tourism operators such as hotels, dive/snorkel shops, boat charters, etc. (after years of political instability, security issues and COVID-19), which could lead to local-level conflicts.</p>	<p>HIGH</p> <p>P = 4</p> <p>I = 4</p>	<p>Updating the Environmental and Social Management Plan (ESMP) at project inception, which meet UN's Environmental and Social Standards including on human rights, gender and displacement.</p> <p>The ESMP will be subjected to public and transparent consultations with all concerned stakeholders, and consultation results will be considered in their finalisation and implementation. The project will facilitate conflict resolution and emplace a grievance mechanism.</p>	<p>PEE, UNIDO</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
9	<p><u>Climate Change Risk:</u></p> <p>Egypt has a high degree of risk to natural hazards and is highly vulnerable to climate change impacts.</p> <p>See below special section on climate change.</p>	<p>MODERATE</p> <p>P = 4</p> <p>I = 2</p>	<p>The climate change risks and mitigation measures are identified, assessed and articulated in the ESMP. The PEE will executive the environmental and social mitigation measures. The PSC and UNIDO will oversee the implementation of these measures.</p>	<p>PEE, UNIDO</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
10	<p><u>Social and Environmental Risk: Gender:</u> Low participation rates of suitable female candidates due to inadequate project activity e.g., promotion</p>	<p>LOW P = 3 I = 2</p>	<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 will 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 and biodiversity protection fields. As gender has been clearly mainstreamed throughout the project design, this will help mitigate any potential risk.</p> <p>The project will collect qualitative and</p>	<p>PEE, U NIDO</p>

#	Risk Category & Description	Risk Level/ Impact & Probability[*]	Risk Treatment / Management Measures	Responsibility
			quantitative data from NGOs and the relevant 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. Please see Gender Analysis and Action Plan annex.	

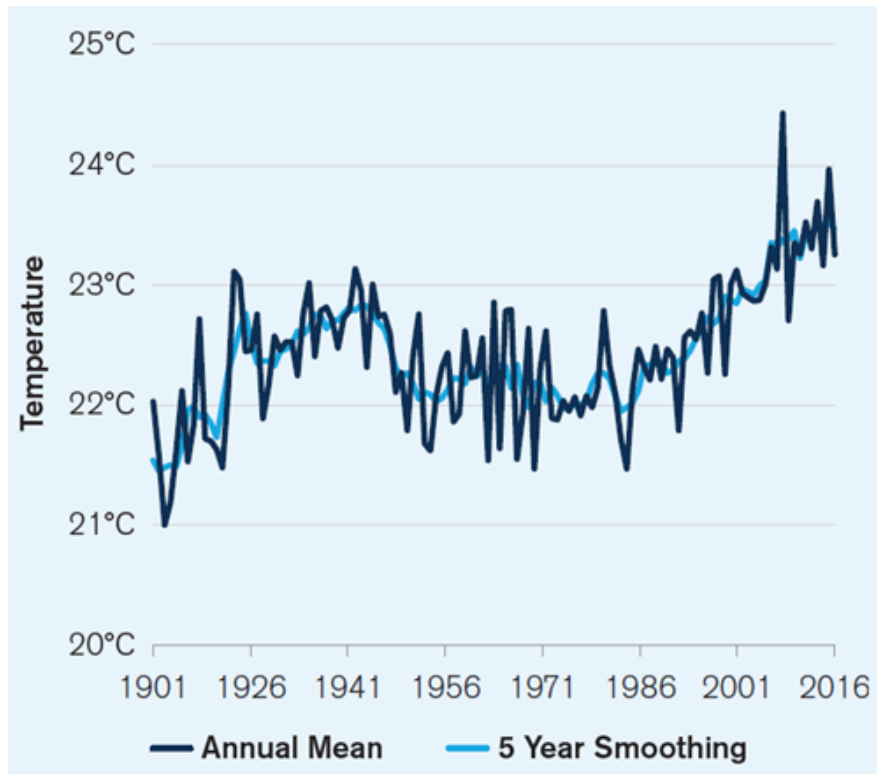
Climate Change Induced Risks and Mitigation Measures

Egypt has a high degree of risk to natural hazards and is highly vulnerable to climate change impacts. Egypt's Nile Delta is recognized as one of the world's three 'extreme' vulnerability hotspots. Future projections indicate Egypt will suffer from sea level rise, water scarcities and deficits, as well as an increase in the frequency and intensity of extreme weather events such as heat waves, sand and dust storms, flash floods, rock slides and heavy rains. Egypt is already severely impacted by and susceptible to droughts, which are expected to be more frequent and pronounced. Additionally, sea level rise is projected to lead to the loss of a sizable proportion of the northern part of the Nile Delta due to a combination of inundation and erosion, with consequential loss of agricultural land, infrastructure and urban areas. Key

sectors impacted include water resources, agriculture, fisheries, health, housing, biodiversity, telecommunications, energy, tourism, and coastal economic zones.

The country is expected to become generally hotter and drier under a projected future climate. Substantially warming was observed in Egypt over the past 30 years[1].

Figure 1 Observed temperature for Egypt (1901-2019)[2]



The main vulnerabilities to climate change in Egypt are; rise of the Mediterranean Sea level leading to inundation of coastal areas in an around the Nile Delta, change of precipitation patterns leading to heavy rains causing urban flooding along coastal areas and flash floods (in Upper Egypt and Sinai), rise in average temperature and more frequent heat waves and dust storms[3].

Long-term changes in climate can reduce efficiency of solar PV due to higher temperatures and dust. Increased air temperatures lower solar PV efficiency and energy output. Dry conditions increase dust events.

Among these heat waves, flooding and water scarcity are further examined for Hurghada.

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

Floods, storm surge and sea level rise

The coastal flood hazard is classified as high in the Red Sea area. 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. Hurghada is 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.

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 has a risk of not only exacerbating marine biodiversity but also reducing coastal resistance to storm waves (Hereher, 2015).

Furthermore, the model projections are inconsistent in their estimates of changes in rainfall due to the climate change. The present hazard level of floods in Hurghada may increase in the future due to the changing precipitation patterns as well as flaws in local water management systems (e.g., poorly dimensioned or maintained sewerage or drainage channels).

Drought and Water Scarcity

Egypt is a highly arid country and receives very little annual precipitation. Hurghada receives less than 100m/year². 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.

In Hurghada water scarcity is classified as high by ?thinkhazard? tool which means that droughts are expected to occur on average every 5 years. In southern Egypt where Hurghada located, model projections are inconsistent in changes in drought. The present hazard level may increase in the future due to the effects of climate change.

Egypt has observed a statistically significant reduction of annual total precipitation amounts over the past 30 years, a reduction by approximately 22%. This has resulted in reduced water availability in some areas and increased periods of drought and dry spells.[4] Decreases in precipitation occurred in the winter and early spring months.

Extreme heat

According to the most recent assessment report of the Intergovernmental panel on Climate Change (IPCC, 2013), continued emissions of greenhouse gases will cause further warming, and it is virtually certain that there will be more frequent hot temperature extremes over most land areas during the next fifty years. Warming will not be regionally uniform. In Egypt the temperature increase in the next fifty years will be slightly higher than the worldwide average. It would be prudent to design projects in this area to be robust to global warming in the long-term.

The figure below[5] points out the trends of increasing anomalies in temperature and precipitation in the future scenarios in Egypt.

Figure 2 Annual Temperature and Precipitation Anomalies in Egypt

CMIP5 Ensemble Projection	2020–2039	2040–2059	2060–2079	2080–2099
Annual Temperature Anomaly (°C)	+0.6°C to +1.7°C (+1.6°C)	+1.5°C to +3.0°C (+2.1°C)	+2.4°C to +4.5°C (+3.3°C)	+3.4°C to +5.5°C (+4.4°C)
Annual Precipitation Anomaly (mm)	-21.6 to +20.1 (-0.5 mm)	-27.3 to +21.0 (-1.9 mm)	-26.5 to +26.7 (-1.6 mm)	-30.2 to +10.0 (-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).

The extreme heat hazard can cause vulnerability for the employees, project staff, biodiversity and sensitive project equipment in Hurghada. Large built-up areas such as Hurghada city center and port area are more likely to experience excess heat than rural areas, because of the urban heat island phenomenon.

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.

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, and 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 SEA) 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).

The project team will develop checklists to limit or avoid damage from flooding, hazardous objects, loose connections, etc. and checklists to check for damage or increased vulnerabilities

The technical design of the technology project will consider precautionary, safety and protected equipment and measures such as enhanced PV panel cleaning and maintenance of all equipment vulnerable to dust.

The following is a list of mitigation measures will be implemented throughout the project implementation to reduce the climate change induced risk of the project.

Floods, storm surge and sea level rise mitigation measures: The PMU will identify early warning systems (EWS) in the project area. EWS aim to provide communities with advanced warning of an imminent flood event, based on weather forecasts, recorded rainfall or rising water levels upstream. They can be used to trigger protocols (such as the deployment of portable flood defenses or evacuation) to mitigate impacts of a flood event.

The project location selection is critical to mitigate the risk of flooding. The project team will consult with professionals who can provide a more detailed understanding of the risk posed to your project by flooding. The project technical experts together with project stakeholders (e.g., Municipality of Hurghada, Red Sea Governorate) will determine whether the site selected (e.g., Hurghada port area) for EV charging stations is located in a flood-prone area[6].

The project will consider relocation of the technology demonstration project if the area is in high level of flood hazard, where viable. This decision will be undertaken with the consideration of other hazards.

For EV charging point components, the project will apply elevation and component protection as the two primary methods for minimizing flood damage, preventing water from entering or accumulating, and resisting flood damages.

1. The primary protection for EVSE is ensuring elevation. Elevation refers to the location of a component above the Design Flood Elevation (DFE). The installation location will be above the DFE as well as potential DFE that can result from sea level rise and flooding.
2. Wet flood proofing will be included in the technical design and procurement. Wet flood proofing refers to the elimination or minimization of the potential for flood damage by implementing waterproofing techniques designed to keep floodwaters away from utility equipment. In this case, the rest of the structure may receive damage, but the EV charging infrastructure is protected by barriers or other methods.
3. Dry flood proofing refers to the elimination or minimization of the potential for flood damage by implementing a combination of waterproofing features designed to keep floodwaters completely outside of a structure. If the entire building is protected from floodwater, the EV charging equipment is also protected.

The technical design of the technology projects will consider that constructing a piece of infrastructure can significantly alter the landscape and potentially influence how an area responds during a flood. Any alteration of the landscape will be undertaken with consideration as to how this will influence the local hydrology in consultation with the relevant city authorities.

Extreme Heat Mitigation measures[7]: The project team will identify local extreme heat monitoring and forecasting systems that provide communities with advanced warning of extreme heat weather forecasts and temperature monitoring. The PEE will monitor the vulnerability to extreme heat and whether a more detailed assessment and/or intervention should be considered. The project team will monitor the local extreme heat hazard information to check whether the project is indeed will be impacted from the extreme heat. The project will immediately apply protocols suggested by the local authorities (e.g., the deployment of heat-health action and emergency response) to mitigate against the effects of extreme heat. Consultation with engineering and climate impact assessment professionals can provide a more detailed understanding of the risks by the extreme heat. The level of guidance required will depend upon the level of hazard present, the vulnerability of the natural habitats and local legislation that might apply. The technology demonstration projects will consider heat management measures appropriate to tourism sector, for example, technological adaptation, technical design, or changing working practices.

The technology demonstration project will take precautionary measures to avoid increasing the hazard. Built infrastructure may alter heat hazard. Constructing a significant piece of infrastructure can significantly alter the thermal properties of a hotel, generally inducing higher temperatures. Any newly built infrastructure covering large enough areas (e.g., in Hurghada port) will look at if there would be impact to the local microclimate.

Drought and Water Scarcity Mitigation measures[8]: During the project implementation, the impact of drought to the personnel and stakeholders, and during the construction/ implementation of infrastructure. Project planning decisions, and construction methods will be taken into account the level of water scarcity.

The project team will monitor the risk and vulnerability to water scarcity/drought and whether a more detailed assessment and/or intervention should be considered and consult with the experts where required. The project will apply any existing local legislation related to water saving.

The PMU will inform project stakeholders on evolving drought conditions using information on local climate and water availability, and trigger drought management plans (e.g., water storage, allocate budget) to mitigate the effects of a potential drought even.

Climate risks to natural capital and mitigation measures

The Natural Capital Assessment and Accounting (NCA) that will be conducted by the project will enable a better understanding of climate change in the context of the interrelationships between the environment and tourism economy in local level. The NCA work will facilitate an improved understanding of the drivers and impacts of climate change, as well as more significantly to help identify necessary policy responses to the effects of climate change, such as to natural disasters, coral bleaching and ocean warming, water scarcity, etc. that can have an impact on the tourism economy.

To this end, the international statistical standard for natural capital accounting (NCA) called the System of Environmental-Economic Accounting (SEEA) that will be pursued under the project (Activity 1.1.2.2) will provide a multipurpose view of the interrelationships between the tourism economy and the environment (including climate change). The SEEA will also reveal the economy's impact on the climate and help to identify which policies and practices can be implemented to address drivers of climate change, while at the same time continuing to manage the tourism economy effectively.

In summary, the NCA work (through the use of SEEA) will provide two different perspectives of the environment - the perspective of individual natural resources and the perspective of ecosystems. Both are extremely relevant for climate change policy. The first perspective will provide a viewpoint of the tourism economy and accounts for how natural resources (e.g. biodiversity, water, ecosystem services, etc.) are used in production and consumption in the tourism sector. It will also enable a look at the resulting impact of this destruction of biodiversity and extraction and use of natural resources on the economy of the tourism sector. Thus, the SEEA will provide important information on climate change policy responses including mitigation, adaptation and responses to catastrophic loss. One of the most important aspects of organizing data in a linked accounting structure, such as the SEEA, is that it is able to provide an information base for subsequent analytical and modelling techniques in relation to sustainable management of the tourism sector in the longer-term.

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

[2] WB Climate Change Knowledge Portal (CCKP, 2020). Egypt URL: <https://climateknowledgeportal.worldbank.org/country/egypt/climate-data-historical>

[3] Source World Bank ? ESMF: <http://www.msmeda.org.eg/Files/Reports/CATALYZING%20.pdf>

[4] GERICS (2019). Climate Fact Sheet ? Egypt. URL: https://www.climate-service-center.de/products_and_publications/fact_sheets/climate_fact_sheets/index.php.en

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

[6] Electric Vehicle Charging Infrastructure Deployment Guidelines for the Greater Tucson Area: <https://avt.inl.gov/sites/default/files/pdf/EVProj/EVChrgInfraDeployGuidelinesTucsonVer3.2.pdf>

[7] GFDRRR thinkhazard!: <https://thinkhazard.org/en/report/65985-arab-republic-of-egypt-red-sea-hurghada-1>

[8] GFDRRR thinkhazard!: <https://thinkhazard.org/en/report/65985-arab-republic-of-egypt-red-sea-hurghada-1>

[1] <https://info.undp.org/sites/ERM/COVID19%20Documents/COVID-19%20Programmatic%20Risk%20Guidance%20-%20v040820.pdf>

[*] Probability (P) based on 1-5 scale (1 = Not likely; 5 = Expected), Impact (I) based on 1-5 scale (1 = Low; 5 = Critical)

6. Institutional Arrangement and Coordination

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

Roles and responsibilities of the project's governance mechanism

Project Execution

1. UNIDO is the implementing agency of the project. EEAA together with the Operational Unit for Development Assistance (OUDA) will act as the executing entity of the project.
2. OUDA was established in partnership between the Ministry of Foreign Affairs (MOFA) and UNDP. Upon the Prime Minister decree in 2003 upon the Prime Minister decree in 2003. 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.
3. EEAA as an executing entity is responsible for the following tasks:
 - ? Day-to-day execution of all the project activities under Component 1, 2 and 3, coordinating stakeholder engagement, forming up, hosting and management of PMU, continuous monitoring of

project activities and achievements, engagement with the Global Programme, data collection and reporting, implementation of Gender Action Plan, ESMP and risk mitigation measures. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The executing partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

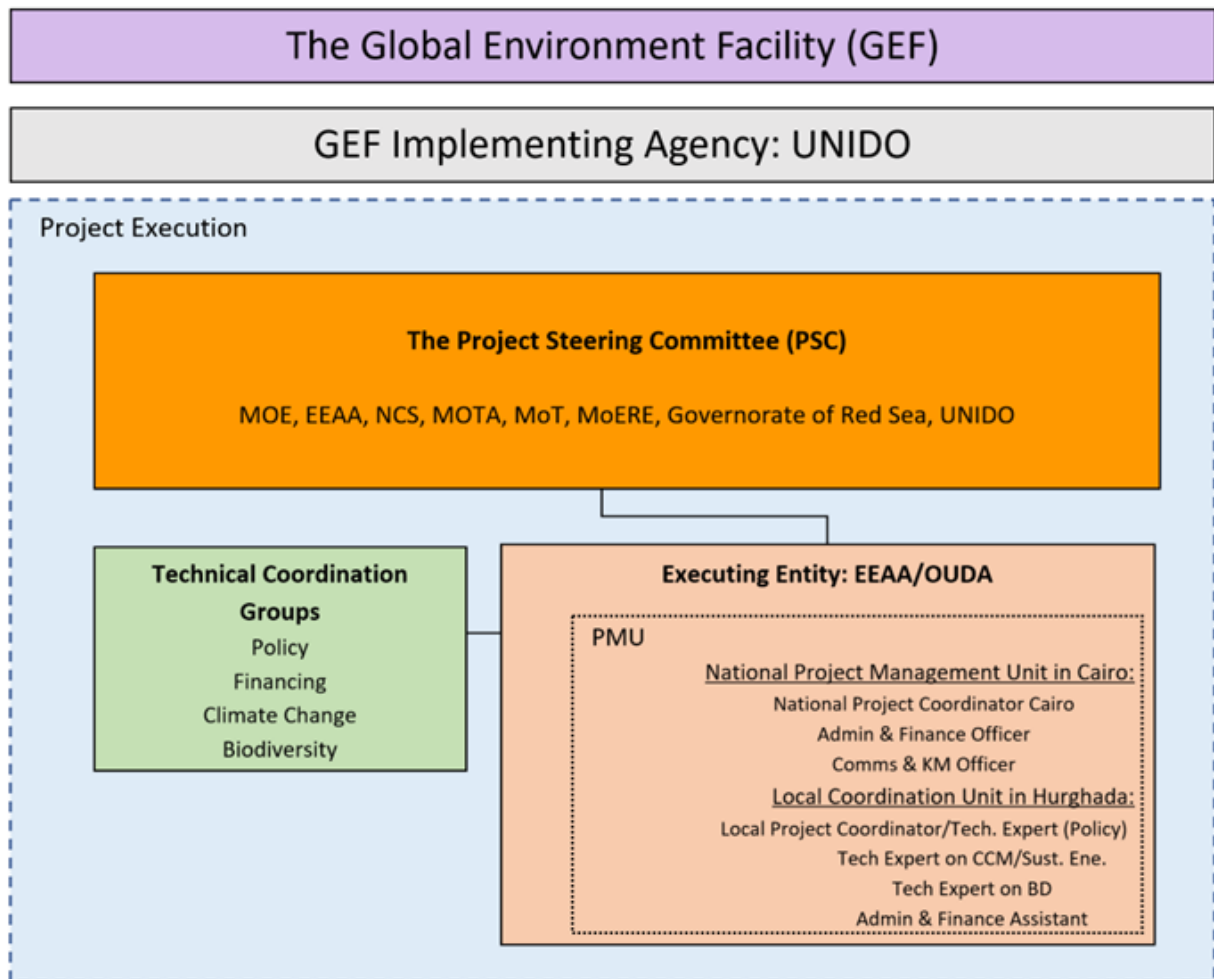
- ? Risk management and implementing mitigation measures as outlined in the Project Document;
- ? Approving and signing the multiyear workplan
- ? Approving and signing the combined delivery report at the end of the year; and,
- ? Signing the financial report or the funding authorization and certificate of expenditures.

4. The Operational Unit for Development Assistance (OUDA) as a co-executing partner is responsible for the following tasks:

- ? Procurement of goods and services, including human resources;
- ? Financial management, including overseeing financial expenditures against project budgets;

5. UNIDO is accountable to the GEF for the overall implementation of this project. This includes general oversight of project execution to ensure that the project is being carried out in accordance with the GEF standards and provisions. UNIDO is responsible for delivering GEF project cycle management services comprising project approval and start-up, MTR and project closure and terminal evaluation.

6. UNIDO will be responsible for executing project evaluation activities (MTR and TE) under Component 4. UNIDO will be a member of the Project Steering Committee (PSC).



Project Steering Committee

7. The Project Steering Committee is responsible for taking corrective action as needed to ensure the project achieves the desired results. The PSC will be chaired by the MOE. The PSC will consist of representatives from MOE, EEAA, NCS, MOTA, MoT, MoERE, Governorate of Red Sea, UNIDO. The PSC cannot delegate any of its quality assurance responsibilities to the Project Coordinator.

8. In order to ensure UNIDO's ultimate accountability, PSC decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the PSC, the UNIDO Representative will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

9. Specific responsibilities of the PSC include:

- ? Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- ? Address project issues as raised by the project coordinator;

- ? Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
- ? Advise on major and minor amendments to the project's direction and interventions
- ? Ensure coordination between various donor and government-funded projects and programs;
- ? Ensure coordination with various government agencies and non-government entities and their participation in project activities;
- ? Track and monitor co-financing for this project;
- ? Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- ? Appraise the annual project implementation report, including the quality assessment rating report;
- ? Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- ? Review combined delivery reports prior to certification by the implementing partner;
- ? Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- ? Address project-level grievances;
- ? Provide input to Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- ? Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up;
- ? Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

10. 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).

11. The composition of the PSC must include the following roles:

- ? **PSC Chair:** Is an individual who represents ownership of the project and chairs the PSC. The Executive is normally the national counterpart for nationally implemented projects. The PSC Chair will be the National Project Director at MOE.

- ? **Beneficiary Representatives:** Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. The Beneficiary representatives are: Ministry of Environment, EEAA, Ministry of Foreign Affairs, Ministry of Tourism and Antiquities/Sustainable Tourism Unit, Ministry of Electricity and Renewable Energies, Ministry of Housing/GOPP and Governorate of Red Sea.
- ? **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 closure and the achievement of higher level of the project's impacts on the global environment. UNIDO will oversight the project implementation and support the quality assurance role of the PSC as a member of the PSC.

Project stakeholders and target groups

12. Stakeholder participation at all project levels will contribute to the cost-effectiveness of the project. The governance (PSC, Technical Coordination Groups) as well as the dialogue platforms will ensure adequate planning and implementation of activities in line with the project objectives, urban sustainability priorities, as well as complimentary with ongoing and planned programs and projects. Coordination mechanisms will be closely linked, ensuring in this manner that stakeholder concerns are up-streamed into higher project management levels and likewise project management decisions are down-streamed to keep stakeholders duly informed. The dialogue platforms will have a key role in this process. The project will benefit from the experiences and knowledge of civil society and private sector participating in the platforms. Systematization of project experiences and lessons learned will contribute to cost-effective upscaling and replication of project results throughout the region and other cities of the country.

Technical Coordination Groups

13. Technical Coordination Groups will be installed and shall be composed of representatives from institutions and organizations involved in the achievement of Project outcomes, as generally identified below. The working groups will represent thematic priorities of the project and ensure a formal inter-governmental and inter-institutional dialogue throughout the Project duration. Within the first six months of project start-up, it is expected that this initial listing be complemented with other institutions, organizations and private sector companies preliminarily contacted during project design.

14. The following table shows the partners responsible for the main thematic priorities to be covered by the Project.

Table 1: Key institutions involved in project components

Project components	Key institutions and organizations to be involved
Component 1: Strategic policy framework in place for a green recovery and sustainable growth of the tourism sector in Hurghada	Responsible: Ministry of Environment/EEAA Relevant partners: Ministry of Tourism and Antiques (MOTA), Red Sea Governorate (RSG), General Authority for fish resources development (GAFRD), Egyptian Tourism Federation (incl. EHA, CDWS), Marine Police and Coast Guards, HEPCA,

<p>Component 2: Green technology investments mitigate GHG emissions, reduce waste and degradation on coastal and marine ecosystems, and improve economic competitiveness of tourism sector</p>	<p><u>Responsible:</u> Ministry of Environment/EEAA Municipality of Hurghada, ETF/EHA <u>Relevant partners:</u> NREA, EGYPTERA, hotel owners, financing sector, transport and mobility companies</p>
<p>Component 3: Long-term environmental and economic sustainability of low-carbon infrastructure and biodiversity investments are ensured</p>	<p><u>Responsible:</u> Ministry of Environment/EEAA, NCS, ETF (CDWS, EHA) <u>Relevant partners:</u> Hotel owners/operators, diving centers, travel agencies, NGOs</p>

Coordination

15. Regarding coordination and partnerships, the project will liaise/ coordinate with and use relevant lessons and experience from the following GEF-funded projects:

Initiative	Objective	Coordination with project
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<p>EAAA/ MOTA / UNDP/ GEF</p> <p><i>Mainstreaming the conservation and sustainable use of biodiversity into tourism development and operations in threatened ecosystems in Egypt</i></p> <p>GEF-5 Project ID 5073, GEF Project Grant 2,574,338, project start January 2019</p>	<p>This project focuses on mainstreaming biodiversity into national-level planning and investment decisions to reduce biodiversity impacts by tourism infrastructure developments, provide a better framework for biodiversity-friendly tourism operations and practices and enhance biodiversity-friendly tourism promotion;</p> <p>On the ground, the project works with local administrations, private companies and protected areas to implement better tourism practices and PA management, in three target regions: Siwa in the Western Desert, the north-western Mediterranean coast (towards Libya) and the southern Red Sea coast near Quseir and Marsa Alam (towards Sudan).</p> <p>On PA/BD financing, the project focuses at the national level on other tourism-related financing mechanisms, such as entry taxes and biodiversity offsets (as final step of the mitigation hierarchy) and thus provides important policy work for this GEF-7 project.</p>	<p>This project will play a supporting role to the Greening Hurghada project at national level, and to clearly articulate best practices in terms of tourism activities. Greening Hurghada project aims to achieve a much more profound multi-focal transformation and more ambitious model linking tourism with coral reef conservation and building capacity among tourism enterprises, operators (e.g. diving and snorkeling) to enhance nature-based solutions. The GEF-5 project is focusing on national level planning and practices, and the new GEF-7 project focusing on implementation at Governorate level. Coordination will be achieved because both projects fall under MOE/EAAA, but special attention has to be paid that MOTA, MPED is strongly involved. Coordination will focus moreover on the GEF-5 project's focus on voluntary national certification schemes and verification mechanisms on responsible NB tourism for hotels and operators (Green fins and Green Star Hotel, both receiving capacity support from the GEF-5 project), on support to the tourism sector with needed equipment to minimize adverse impacts on biodiversity, and on the development of guidelines for NB tourism and lessons learnt.</p>
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<p>Cleaner Production Center/ UNIDO/ GEF</p> <p><i>Utilizing Solar Energy for Industrial Process Heat in Egyptian Industry (SHIP)</i></p> <p>GEF-5 ID 4790, GEF Project Grant USD 6,500,000, endorsed Dec 2014</p>	<p>The project is implemented by the Cleaner Production Center of the Ministry of Industry and Foreign Trade. Its objective is to develop the market environment for the diffusion and local manufacturing of solar energy for industrial process heat.</p>	<p>The project focuses on improving the energy efficiency of the industrial process heat system and the introduction of solar thermal technologies mainly in industrial companies with a high fraction of low and medium temperature heat demand in industrial sectors. The same solar water heating systems will be suitable for hotels as well. Accordingly, the UNIDO-GEF project will liaise with the Cleaner Production Center to obtain the technical assistance packages that were provided under the SHIP project, using these to provide technical and financial support to pilot the solar water heating systems in selected hotels. The successful pilot projects will encourage expanding the use of the technology at the level of hotels in Hurghada and in Egypt more widely.</p> <p>Furthermore, SHIP is currently planning to expand its activities into the tourism sector, which foresees also the applicability of the SHIP Revolving Fund to include design and feasibility, installation and monitoring of SWH systems. Moreover, there are discussion ongoing to use some of the TA outputs (trainings, capacity building) and replicate to the Greening Hurghada project.</p>
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<p>Industrial Modernization Center/ UNDP/ GEF</p> <p><i>Grid-Connected Small-Scale Photovoltaic Systems</i></p> <p>GEF-5 ID 5064, GEF Project Grant USD 3,536,364, endorsed in Dec 2014</p>	<p>The project aims to encourage and accelerate the development of solar PV systems by opening markets for roof top small scale PV systems in industrial, residential and commercial sectors.</p>	<p>The project can use the case studies and methodologies that helped disseminate EE appliances in Cairo. In addition, the project has been providing technical and financial assistance to hotels in Hurghada to promote installation of roof top PV system, and training for engineers in hotels on the design, implementation and maintenance of PV systems and LED lighting.</p> <p>The successful pilot projects will pave the road for Greening Hurghada Project to replicate the technology in other hotels to support energy transition in the city.</p>
<p>Ministry of Electricity and Renewable Energy/ UNDP/ GEF</p> <p><i>Improving the Energy Efficiency of Lighting and Building Appliances</i></p> <p>GEF-4 ID 3832, GEF Project Grant USD 4,450,000, Oct 2010-2018</p>	<p>The project aim was to achieve a market transformation to efficient lighting systems and home appliances in Egypt.</p>	<p>The project has implemented pilot projects for converting lighting systems in hotels to efficient lighting systems. The pilot projects results were documented and contributed to the replication in many hotels in Egypt. The project ended in 2018 but the case studies and other project outputs will be shared with the hotels in Hurghada that have not converted yet. The project Terminal Evaluation has acknowledged its role in supporting the market transformation to efficient lighting in Egypt. Greening Hurghada will build on the success of the Energy Efficiency project and benefits from its generated knowledge and technical capacities to technically support any hotels in Hurghada that were not able to complete shift to efficient lighting.</p>

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

17. **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

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

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

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:

- ? 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

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:

- ? 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

5. Egypt 1st **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.

6. 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 its 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, uncontrolled urbanization, 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

7. The Low Emission Development Strategy **LEDS** (Ministry of Environment) was adopted by the National Council for Climate Change (NCCC) in February 2019. An outline of the strategy's objectives is available on EEAA website[1]. The LEDS focus areas for the industrial sector are the following: i) Energy efficiency in the main industrial sectors, ii) Industrial motor efficiency improvement, iii) Using Solar Heat for Industrial Processes (SHIP) including in the tourism sector.

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

9. Egypt is committed to the Montreal Protocol and to implementing the relevant Programmes of the National Environmental Action Plan

[1] <http://www.ecaa.gov.eg/portals/0/ecaaReports/NC4Egypt/InceptionWorkshop/ppt.leds.pdf>

8. Knowledge Management

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

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

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

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

? Creation of KM team (composed with members from the project team and different central and local project partners)

? Preparation of detailed KM implementation plan

? Build KM tools easily integrated into IT platforms through an open access approach.

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

? Improve the information management sharing and collaboration and learning across the partners (other projects/programs, central and local project partners, ministries, national agencies, NGOs, associations and private sector active in Hurghada)

? Strengthen/expand the approaches for up taking the lessons and best practices (use of UNIDO experiences and current projects)

? More systematically integrate knowledge capture, dissemination and learning into UNIDO-GEF project design, implementation and reporting.

5. In more details:

- ? Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.
- ? The project will identify and participate, as relevant and appropriate, in meetings and conferences which may be of benefit to project implementation through lessons learned. The project will identify, analyze and share lessons learned that may be beneficial in the design and implementation of similar future projects.
- ? The project will incorporate the lessons learned from similar relevant projects in Egypt into the media coverage and marketing campaigns with the UNIDO in Egypt.
- ? 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 disseminations events and EXPOs that in addition to other tools that will be generated on later stage shall be efficient as support to knowledge management. To easily share knowledge and lessons learned within and beyond the project intervention zone, UNIDO's Open Data Platform will be used to collect relevant reports and data on technology investments projects.
- ? All knowledge management activities (such as workshops, trainings, awareness raising) will be gender mainstreamed. This includes integration of gender dimensions into project documents (incl. action plans), publications, for instance presenting sex-disaggregated data, gender-energy nexus theory, gender sensitive language in publications, photos showing both women and men, and avoid presenting stereotypes, as well as assuring that women, men and the youth have access to and benefit from the knowledge created.
- ? Continuous monitoring will be conducted throughout the project life-time. Up-to-date reports will be shared with the main stakeholders. The project will develop strategic communication plan for information exchange with the key organizations active in the area and other international organizations that can pave the way to achieving project targets and outcomes.
6. As a GEF Implementing Agency, UNIDO has a strong global experience in promoting climate-change mitigation technologies and nature-based solutions through its industry-led approach and engagement in tourism sector. The knowledge and network to be leveraged by the project will consolidate knowledge of the sector within and across UNIDO projects and for global level initiatives. This approach will enable and facilitate knowledge sharing between stakeholders involved to provide an ongoing coordination mechanism that will remain in place beyond the project period.

Key Deliverables	Timeline
KM team is formed up	First 3 months of the project
KM Implementation plan is developed	1st half of the project
Project website is developed and launched	1st half of the project

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

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

9. Monitoring and Evaluation

Describe the budgeted M and E plan

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

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

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

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

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

5. The PMU will be responsible for day-to-day and local monitoring of project execution, performance and the tracking of progress towards the achievement of outputs, indicators and milestones. However, monitoring and evaluation of the demonstration projects with respect to energy generation, technical performance, commercial viability and GHGs emission reduction will be integral part of the evaluation component of Project Component 4.

6. UNIDO will be responsible for general oversight and tracking overall project targets and progress towards the attainment of the set project outputs. UNIDO will be responsible for narrative reporting to the GEF. The PMU will be responsible for the collecting data for preparation of Annual Project Implementation Reviews (PIR). UNIDO will be responsible for submitting PIR to the GEF.

7. Mid-term review (MTR) and terminal evaluation (TE) will be prepared by an independent evaluators as established in the M&E Plan under the responsibility of UNIDO

8. Terminal evaluation at least three months before the completion of the project will be conducted by UNIDO

9. All monitoring and evaluation documents, such as progress reports, final evaluation report, and thematic evaluations (e.g. capacity needs assessment), as well as publications reporting on the project, will include gender dimensions. Table 15 provides the tentative budget for monitoring and the two evaluations, which has been included in Output 4.1.1 of Project Component 4.

10. UNIDO as the Implementing Partner will involve the GEF Operational Focal Point and project stakeholders in order to ensure the use of the evaluation results for further planning and implementation. All project partners and contractors are obliged to (i) make available studies, provide reports or other documentation related to the project and (ii) facilitate interviews with staff involved in the project activities. The project will report on the number of buses that are actually transferred from Sharm to Hurghada in every PIR.

11. Area of marine habitat under improved practices will be measured through following measures;

(i) biodiversity baselines established;

(ii) alternative set of development options agreed to conserve and protect biodiversity, sensitive habitats and ecosystem Services,

(iii) zoning plan to support long-term conservation of biodiversity, sensitive habitats and ecosystem services instituted;

(iv) roadmap for sustainable tourism agreed to;

(v) regulatory and nature-based best practices to support integration of biodiversity and ecosystem Services in tourism sector under implementation,

(vi) monitoring System to measures the Status of the environment and effectiveness of management measures functional and

(vii) regional Biodiversity coordination platform functional

Table 2: Monitoring and Evaluation Plan and Budget

M&E Activities	Indicative costs (US\$)	Time frame	Responsible party
Inception M&E meetings (kick off meeting)	\$25,000	Within 60 days of CEO endorsement of this project	PEE
Monitoring of day-to-day project activities and stakeholder engagement as per Stakeholder Engagement Plan		Continuous	PEE

M&E Activities	Indicative costs (US\$)	Time frame	Responsible party
Monitoring of ESMP and Gender Action Plan		Continuous	PEE
Monitoring of indicators in the project results framework		Continuous	PEE
Data collection for the Project Implementation Report (PIR)		Annually	PEE
Monitoring and updating risks and mitigation measures		Continuous	PEE
Final workshop event and other final M&E meetings		Four months before the end of the project	PEE
Review data, draft and submit of Project Implementation Report (PIR) to the GEF	\$55,000	Project mid-term	UNIDO
Independent Mid-term Review (MTR)		Annually	UNIDO
Evaluation of gender impact and environmental and social management plan (part of MTR)		Project mid-term	UNIDO
Evaluation of the impact of the biodiversity preservation measures (part of MTR)		Project mid-term	UNIDO
Independent Terminal Evaluation (TE)		\$114,000	Evaluation at least three months before the end of the project
Final evaluation of gender impact and environmental and social management plan (part of TE)		Evaluation at least three months before the end of the project	UNIDO
Evaluation of the impact of the biodiversity preservation measures (part of TE)		Evaluation at least three months before the end of the project	UNIDO
TOTAL indicative COST	\$194,000		

10. Benefits

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

1. Tourism is an important domain for economic development in Egypt, with almost 95% of tourism activity in the country leisure and culture-oriented and mostly concentrated on Cairo, Upper Egypt, Sinai and the Red Sea. Indeed, if the economic development of a certain country is to be based to some extent on tourism, diversification and enhancement of the tourism product is an appropriate strategy, such as through sustainable tourism. The Egyptian government is starting to take actions towards sustainability efforts and to assume full environmental responsibility, which often conflict with tourism development goals of creating job opportunities and increasing foreign currency. Government engagement and supervision is essential in this initiative because the private sector cannot be relied on its own and requires policy and framework conditions and guidance and capacity to develop sustainable investments. Moreover, the Egyptian Ministry of Tourism believes that tourism in the Red Sea will need to benefit the environment if practiced in a sustainable manner by promoting eco-destinations and raising awareness.

2. The economic benefits in the tourism industry will generate social and socio-economic benefits for local communities and other job seekers in the tourism industry, in particular from Upper Egypt. Sustainable tourism activities create jobs and generate income from environmentally friendly activities. These may also include income generation for local communities engaged in ecotourism activities, handicrafts and other service facilities. It also includes improvement of livelihoods and well-being for local communities through establishment of new facilities in the targeted protected areas. The CCM mitigation technologies for small scale renewable energy, energy/resource efficiency technologies and electric mobility will open new lines of small businesses in installation, operation and maintenance of these applications.

3. Thus, environmental protection, conservation and inclusiveness is essential for the success of sustainable tourism development and ensuring a high-quality tourism destination in Hurghada in the future. The Greening Hurghada project will improve the management and organizational capacities for a sustainable development and planning and launching its implementation with different stakeholders at the national and local levels.

4. The GEB related to biodiversity including over 5,000 species of which 24% are classified as threatened and 19 endangered marine plant species and 53 species of endangered marine faunal species through improved management of 199,100ha of protected area and 96,000 he of marine habitat outside Pas. In this respect, the specific global benefits include enhanced or stable condition of the coral reefs and associated species and as well as enhancement of coral fish diversity as well as maintain the status of mangroves, seagrass beds and turtle nesting sites. It would also help enhance the status of the larger aquatic species such as the Spinner Dolphin, Bottlenose Dolphin, Dugongs and 4 species of turtles.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

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

Please find attached the ESMP.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
10796-Annex_ESMP_Greening-Hurghada_final_cleanV2	CEO Endorsement ESS	
Annex H - GEB calculations_210430	Project PIF ESS	
Theory of change - GEF-7 Egypt_updated_210430	Project PIF ESS	
UNIDO_ESS Screening	Project PIF ESS	

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

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
<p>Project Objective:</p> <p>To reduce the environmental pressure of the tourism sector and related activities to mitigate</p>	<p>Indicator 1 / GEF Core Indicator 2: Marine protected areas created or under improved management for conservation and sustainable use (Hectares)</p>	<p>Northern Islands Protected Area of 199,100 hectares with METT baseline score of 28</p>	<p>At least 10 point increase from baseline METT score (METT score: 38)</p>	<p>At least 25 point increase from baseline METT score (METT score: 53)</p> <p>199,100 hectares of marine protected area under improved management.</p>	<p>PIRs MTR TE GEBs tracking tools</p>	<p>UNIDO PEE</p>	<p>The project activities are completed in the project lifetime</p> <p>See Risks section and ESMP for the overall risks in the project</p>

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon- sible party	Assumption s / risks
GHG emissions and preserve biodiversity in the coastal area of Hurgħada through mainstreaming climate smart technologies and sustainability practices in tourism, energy and transport infrastructure	Indicator 2 / Core Indicator 5: Area of marine habitat under improved practices (excluding protected areas) (Hectares)	96,000 hectares of marine habitat (excluding protected areas) in Red Sea has limited baseline information, limited efforts at management of threats on sensitive biodiversity and habitats and coordinated monitoring systems	Baseline established for marine habitat, alternative options for threat management identified and regulatory measures under consideration	96,000 hectares marine area (excluding protected areas) under improved management as assessed through following measures; (i) biodiversity baselines established; (ii) alternative set of development options agreed to conserve and protect biodiversity, sensitive habitats and ecosystem services, (iii) zoning plan to support long-term conservation of biodiversity, sensitive habitats and ecosystem services instituted; (iv) roadmap for sustainable tourism agreed to; (v) regulatory	PIRs MTR TE GEBs tracking tools	UNIDO PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				and nature-based best practices to support integration of biodiversity and ecosystem services in tourism sector under implementation, (vi) monitoring system to measure the status of the environment and effectiveness of management measures functional; and (vii) regional biodiversity coordination platform functional			
	Indicator 3 / Core Indicator 6: Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e)	0	30% of EOP targets	Total lifetime direct ER: 195,702 tCO ₂ eq	PIRs MTR TE GEBs tracking tools	UNIDO PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Indicator 4 / Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	0	2,100 women/ 2,800 men/total direct benefici aries ~4,900	6,500 women/8,4 00 men/total direct beneficiarie s ~14,900.	PIRs MTR TE GEBs tracking tools	UNIDO PEE	
Component 1. Strategic policy framework in place for a green recovery and sustainable growth of the tourism and other impact sectors in Hurghada					Means of verification	Respon sible party	Assumption s/risks
Outcome[3] 1.1. The principles of mainstream ing biodiversi ty and sustain able natural resources and energy pr actices in tourism a	Indicator 5: Improved skill level of institutions responsible for natural capital valuation (measured by increased scores on the capacity development scorecard). See also NCA Capacity Development Scorecard (separate Annex)	Capacity of institutio ns for NCA at baseline score of 28% based on GEF/UN DP capacity developm ent scorecard	At least 10-point increase of GEF/UN DP Capacity Develop ment Scorecar d baseline score.	At least 20- point increase of GEF/UND P Capacity Developme nt Scorecard baseline sc ore	Capacity Developmen t Scorecard	PEE	Government is willing to adopt and implement policy, regulatory measures

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
<p>nd related operation s integrat ed in existing and future developm ent policies, r egulatory framework s, managem ent plans, green investme nts and programs aimed at reducing anthropog enic pressure on the ecosyste ms around Hurghada .</p>	<p>Indicator 6: Developing and adoption of policy, regulatory and enforcement framework supporting the sustainable management of the environment in Hurghada focusing on the tourism's impacts (hotels, boats, mooring, fishing, diving centers, etc.) on the marine ecosystem and climate change</p>	<p>Limited and best practices for management of tourism impacts on biodiversity and ecosystems under implementation</p>	<p>Update of regulatory measures assessed based on SEA and NCA and under discussion with stakeholders</p>	<p>Best practice gender-mainstreamed regulations and guidelines for tourism impact management under implementation (some examples might include practices related to mooring, diving centers, waste management, sustainable fishing, water saving, boat building, electric mobility, etc. Developed and submitted to the government (e.g., Ministry of Environment) for implementation</p>	<p>Draft policy documents (e.g., SEA, NCA, incentivizing the adoption of green technologies)</p>	<p>PEE</p>	<p>Effective participation of governmental stakeholders to the development of regulatory frameworks and management plans</p>

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Indicator 7: Multi-year strategy/plan developed and agreed to by stakeholders for tourism development in Hurghada	Lack of a integrated strategy plan for sustainable management of tourism in the Hurghada area that protects biodiversity, species and habitats	An enabling framework for the Red Sea environment around Hurghada assessing trade-offs in terms of natural, social and human capital of the tourism interventions under discussion	Multi-year strategy/plan up to year 2030 (or beyond) addressing policy, regulatory, governance and institutional needs for sustainable tourism infrastructure development and management for Hurghada region agreed among key stakeholders and mechanisms defined to enable annual evaluation and adjustment	Multi year strategy report	PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon- sible party	Assumption s / risks
Outputs to achieve Outcome 1.1	Output 1.1.1. Strategic Environmental Assessment (SEA) principles established, including clear baselines to guide policy-making processes, and monitoring the condition of marine, coastal and terrestrial biodiversity in the Red Sea Governorate			i) Draft SEA (1) is developed including guidelines for policy-making and monitoring; (ii) baseline for Red Sea environment established; (iii) Analysis of decision-making and governance processes and current procedures to track and record impacts from tourism and related development in the area; (iv) political level dialogue with at least 2 relevant NGOs through 2 workshops to integrate gender dimensions into policies and raise awareness on the importance of gender equality and the empowerm	Draft SEA Analysis report on decision-making Updated Baseline assessment report for Red Sea Meeting minutes of political level dialogue	PEE	Effective multi-stakeholder collaboration (incl. ac different ministries, academia and private sector) to collect data and analyse solution in political level to improve SEA, NCA and Regional biodiversity coordination platform, policy and regulation Lack of interest to participate to the trainings is a risk

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				ent of women (40 % women); and (v) alternative set of development options assessed to first avoid, second reduce and third offset adverse impacts			
	Output 1.1.2. Institutional capacity and tools for application of natural capital assessment (NCA) developed and strengthened for application in tourism and other impact sectors in the Hurghada region			i) Report on capacity needs assessment for NCA with a focus on tourism sector ii) Trainings for policy makers on implementation of NCA and management of threats (2 trainings 50 participants , 40% women)	Capacity Need assessment report for NCA List of participants to the trainings	PEE	

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 1.1.3. Natural Capital Accounting (NCA) of marine (incl. coral reefs, fish), coastal (e.g., mangroves) and land biodiversity in the Red Sea Governorate to support improved policy decisions for tourism, energy, fisheries and transport sector			i) Draft Natural Capital Accounting (NCA) is developed and submitted for endorsement by the government ii) Conduct policy makers workshop (1) to ensure participation from different governmental stakeholders, private sector and NGOs to policy drafting process and (ii) communication and awareness of NCA assessment results implemented.	Draft NCA report Minutes of the policy makers workshop and list of participants	PEE	

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	<p>Output 1.1.4. Development of policy and regulatory framework to promote green and circular investments, renewable energy integration and mainstreaming biodiversity conservation and natural resource use measures to limit impacts on biodiversity, ecosystems and GHG emissions (e.g., Sustainable and Green Tourism Plan)</p>			<p>i) Regional biodiversity coordination platform is established ii) Sustainable and Green Tourism Plan (1) through integrating the results of SEA and NCA into policy, regulatory and institutional frameworks including gender mainstreaming action points iii) Conduct policy makers workshops (2) to ensure participation from different governmental stakeholder s, private sector and NGOs to policy drafting process. iv) Policy and regulation draft(s) focusing on</p>	<p>ToR incl. workplan and minutes of the meeting (2)) Sustainable and Green Tourism Plan report Draft policy and regulation reports focusing on the incentives are developed and submitted to the relevant government al bodies for adoption Guidelines report on integrating sectoral approaches List of participants to the trainings Policy makers</p>	<p>PEE</p>	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				<p>the incentives are developed and submitted to the relevant governmental bodies for adoption</p> <p>v) 20 National stakeholder staffs trained and capacitated on GEEW through 2 workshops with focus on integrating gender dimensions into action plans, policies and guidelines on sustainable tourism, climate change and biodiversity protection (40% women).</p>	workshop minutes		

Project's intervention	Objective and Outcome Indicators	Baseline[1]	Mid-term Target[2]	End of Project Target	Means of verification	Responsible party	Assumptions / risks
	<p>Output 1.1.5. Protected areas, marine resources(incl. coral reefs, seagrass beds and associated species)and land resources(mangroves, desert ecosystems and associated species) effectively managed through future development plans and nature-based management that integrate mitigation and offsetting policies based on the outcome of the NCA and supported by completed SEA focusing on the tourism's (hotels, boats, diving centers) and fisheries, transport and energy impacts on the marine ecosystem and climate change</p>			<p>i) A roadmap (1) on prioritization of short-term and long-term strategic infrastructure investments including women participation strategies ii) Minutes of the workshops (4) on providing technical support to key sector agencies (tourism, fisheries, shore protection, infrastructure, energy, etc.) to support adoption of regulations of economic activities in Hurghada (80 participants , 40% women) iii) adoption of regulations and best practices and provide guidelines and technical advice</p>	<p>Strategic multi-year development plan including long-term strategies on infrastructure investments and women participation strategies ? Minutes of the workshops (4) ? Information Management Framework report Regulations and best practices submission letter (e.g., official letters, e-mails)</p>	<p>PEE</p>	<p>It is assumed that government will be willingly to adopt the regulations and guidelines to protect PA Reliable information flow from cartographic database for Development of an Information Management Framework is assumed.</p>

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				<p>(national support) to key sector agencies (tourism, fisheries, shore protection, infrastructure, energy, etc.</p> <p>iv) Development of an Information Management Framework at the regional level (cartographic database, management of partners, coordination of the activities of the various partners, monitoring of management transfers and support to grassroots communities, etc.)</p>			
Component 2. Green technology investments mitigate GHG emissions and reduce degradation on marine ecosystems, and improve economic competitiveness of the tourism sector					means of verification	respons ible party	Assumption s/risks

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
Outcome 2.1. Green economy investments are mainstreamed and de-risked to reduce biodiversity harmful practices and green-house gas emissions	<u>Indicator 9:</u> Increased public/private investment for promotion of climate smart technologies and nature-based solutions	No monitoring of public/private investment levels for promoting climate smart technologies or NBS	At least USD 1 million per year public investment anticipated and requested specifically to implement climate smart technologies or NBS	At least USD 2 million per year public investment anticipated and requested specifically to implement climate smart technologies or NBS	Technology delivery report PIRs MTR	PEE	It assumed that the private sector willingly to co-finance such investment considering prefeasibility will showcase the economic feasibility

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	<p><u>Indicator 10</u>: Climate-smart capital investment plan developed, based on which energy and water efficiency measures as well as renewable energy installations in public infrastructure or hotels (or combined) will be implemented</p>	<p>Experience from other donor supported projects show energy/water saving potential of average 30% per facility. Further data to be obtained by facility audits in first two project year</p>	<p>Energy and resource efficiency audits supported in at least 15 hotels. At least 15 hotels implement cost-effective resource efficiency or renewable energy measures by the end of the project</p>	<p>Energy and resource efficiency or renewable energy measures supported and implemented in at least 15 hotels, leading to reduction in energy and water consumption per guest by an average of 30% or additional renewable energy capacity by at least 3 MWp, with total investment triggered by hotels of USD 6-8 million, and with USD 25-30 million investment expected for upscaling and replication.</p>	<p>Technology delivery report Pilot-site visit reports Energy monitoring report Technical documents on measurement</p>	<p>PEE</p>	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Indicator 11: Innovative transportation modes in public infrastructure, hotels or marine transportation facilitated, including charging infrastructure	No information sources on alternative transportation modes, e.g., hybrid, CNG or electric vehicles/boats as well as charging infrastructure available	At least 5 public buses, mini-buses and 20 taxi operating on electricity At least 2 boats demonstrating hybrid or full electricity or CNG propulsion technology in marine transportation Charging infrastructure based on renewable energy installed at central locations across Hurghada (e.g., nearby Port area)	At least 10 public buses, mini-buses and 50 taxi operating on electricity At least 5 boats operating on hybrid or full electrical or bio-CNG propulsion technology Additional charging infrastructure implemented	Technology delivery report Pilot-site visit reports	PEE	Public acceptance of electric vehicles assured through global trends and knowledge sharing, increased awareness

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Indicator 12: Number of hotels and tourist facilities that implement and fully enforce guidelines for biodiversity friendly measures	None	At least 10 hotels	At least 20 hotels	Technology delivery report Pilot-site visit reports	PEE	It assumed that the tourism sector willingly to co-finance such investments on biodiversity friendly measures considering prefeasibility will showcase the future proofing benefits of eco-tourism

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
Outputs to achieve Outcome 2.1	Output 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) including integrated climate-risk, and biodiversity conservation principles			i) Climate-smart capital investment plan (1) is developed ii) 2 associations/ organizations that promote GEEW consulted in project planning and design and attending project meetings particularly with regards to participations to the workshops and investment facilitations iii) 4 meetings conducted involving staff of governmental agencies and training on gender dimensions in the project context (20 participants , 40% women)	Climate capital investment plan (1) Minutes of the meetings including gender-disaggregated participation (2) List of participants (2) Photos	PEE	Effective participation and contribution to the workshops

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 2.1.2. Financial mechanism developed and submitted for government's approval to create incentives for the sector to invest in climate-smart technologies and nature-based solutions for the conservation of biodiversity			Financial mechanism developed (1) and submitted for government's approval	Signed financial mechanism agreement	PEE	Financial mechanism is adopted by the government and the bank (e.g., NBE)

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 2.1.3. TA to develop green investment projects in renewable energy, energy efficiency and e-mobility facilitated			<p>i) Number of projects supported: approx. 15, total investment triggered by hotels approx. 5-6 million USD, with 25-30 million USD investment due to upscaling and replication</p> <p>ii) Reduction in energy (and water if possible) consumption per guest by an average of 30%, or additional renewable energy capacity by at least 3 MWp</p> <p>iii) Number of additional Green Star rated hotels in Hurghada by the end-of-project (15)</p>	<p>Energy and resource efficiency audits (15)</p> <p>Green Star reports</p> <p>Technology delivery reports</p>	PEE	Interest from tourism sector to participate in call for proposals
	Output 2.1.4. GHG emission inventory developed for the tourism sector, and capacity in place for continued tracking and MRV			GHG emission inventory (1) is developed	GHG Emission inventory document	PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 2.1.5. Systematic integration of key biodiversity-friendly design principles, NBS and their effective management including cooperation with and support programs for hotels and dive centers			At least 20 hotels implemented biodiversity friendly measures	Technology delivery reports PIRs Photos	PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon- sible party	Assumption s / risks
	Output 2.1.6. Green investments in renewable energy, energy efficiency and e-mobility implemented through risk mitigation instruments such as long-term incentives with linkages to green recovery stimulus packages			(i) 20 innovative energy and resource efficiency or renewable energy measures implemented in at least 15 hotels, (ii) At least 10 public buses, mini-buses and 50 taxi implemented that are operating on electricity (iii) At least 5 boats implemented and operating on hybrid or full electrical propulsion technology (iv) Electric charging infrastructure available based on 100% renewables for new installations (at least 10 DC charging points (~50kW capacity) and 10 AC charging points (~22 kW	Technology delivery reports PIRs Photos Case studies Due diligence report as necessary	PEE	It assumed that the private sector willingly to co-finance such investment considering prefeasibility will showcase the economic feasibility and financial mechanism to be set up

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				capacity) and rooftop PV energy supply (approx. 200 kWp) to provide the electric capacity in a central area of Hurghada near the port (with a combined charging facility for electric boats and electric vehicles)			
Component 3. Long-term environmental and economic sustainability of low-carbon infrastructure and biodiversity investments are ensured							
Outcome 3.1 Enhanced stakeholder capacities, awareness and partnerships influence behavioral change towards sustainable tourism.	<u>Indicator 13:</u> Capacity of Red Sea Governate to manage and monitor environmental protection measures increased on basis of capacity development scorecard (CDS)	CDS score: 32/45	CDS score: 38/45	CDS score: 45/45	Updated capacity development scorecard	PEE	
	<u>Indicator 14:</u> Number of staff of Tourism/energy/transport/governorate trained in development and management of integrated sustainable resource use and environmental management, disaggregated by gender	None	At least 100, at least 40% women	At least 200, at least 40% women	List of participants PIRs	PEE	

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	<u>Indicator 15:</u> Change in mean living substrate cover in the 8 islands within the North Sea Islands PA surrounding Hurghada	Baseline mean percentage values of living cover for the 8 islands are as follows (2020 data)[4] Hard Corals - 60.1 ? 12.6 Soft corals - 2.5 ? 2.1 Algae - 2.5 ? 3.4 Sponges - 0.6 ? 1.5 Dead Coral - 30.3 ? 8.5	Stable or improved percentage values of living cover	Improved percentage values of living cover	GEBs tracking tools (protected areas)	PEE	Required data is available and reliable
	<u>Indicator 16:</u> Change in coral fish species diversity in 5 islands within the North Sea Islands PA surrounding Hurghada (measured at 15m, 10m, 5m, Reef Edge-RE and Reef Flat-RF)	Baseline mean species diversity for the 5 islands are: 15m (12.6); 10m (22.6); 5m (17.2); RE (23.6); and RF (18.2)	Stable or improved diversity of coral reef species	Stable or improved diversity of coral reef species	GEBs tracking tools (protected areas)	PEE	Required data is available and reliable

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
Outputs to achieve Outcome 3.1	Output 3.1.1. Strengthening institutional capacity, communication and awareness tailored for governmental stakeholder and tourism sector, including sustaining the climate MRV system contribute to improved practices			i) A training needs assessment and a training plan considering gender dimensions (suitable location, date and time selection to enhance women participation) ii) Web-based (news pieces, articles, call to action) or physical dissemination material (e.g., brochures, leaflets) (4) on awareness raising developed iii) Draft incentive report (1) (awards, recognition, environmental-friendly labels, etc.) to encourage enterprises to get involved	A capacity needs assessment and a training plan news pieces, articles Draft incentive report	PEE	Interest from tourism sector and governmental stakeholders to participate in capacity building activities

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 3.1.2. Participation and contribution in relevant global platforms: international and regional events, annual meetings, targeted training programs on the use of tools and methodologies (e.g., GHG emission calculation)			i) Develop analytical reports, business cases and lessons learned are developed and disseminated in 5 different platforms ii) Develop ToR for ?Egyptian Green Tourism Award? ceremony and disseminate the event. The design of the award mechanism will include gender dimensions (e.g., Women Biodiversity Champion award) iii) Trainings (2) on the use of tools and methodologies developed by the project (e.g., MRV) (30 participants (40% women)	Reports on analytical assessment, business cases ToR for Green Tourism Award List of participants to the trainings Photos/videos Media coverage (e.g., web links) Minutes of the meetings	PEE	Interest from tourism sector and governmental stakeholders to participate in capacity building activities

Project? s intervent ion	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
				iv) Outreach to at least 2 women?s organizatio ns through 2 events promoting women?s empowerm ent in target sectors (e.g. networking events) to ensure their participatio n to project activities (50% women speakers and 40% women participants)			

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 3.1.3. 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)			i) Gap analysis report on the existing guidelines in tourism sector (Green Star Hotels, Green Fins) to assess gaps and opportunities for strengthening these guidelines and practices ii) Recommendations report (1) to strengthen existing guidelines and practices including gender dimensions iii) Training (4) on ESIA procedures (60 participants (40% women)	Gap analysis report Recommendations report including gender dimensions Updated Gender Action plan List of participants to the trainings	PEE	Interest from tourism sector to pursue green initiatives There is a risk of low interest in participation

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 3.1.4. Improved Protected Area management (including PA and visitor management plan, financial and business guidelines, monitoring programme) and community participation, and benefit sharing from conservation			i) PA Management Plan ii) The visitor management plan (1) including financial and business guidelines for managing and mitigating threats to biodiversity particularly from touristic activities iii) Evaluation report (1) on the feasibility of ecotourism iv) 2 workshops on community engagement conducted v) Protocols are developed (1) citizen science program ?Adopt A Reef?	PA management report Visitor management plan including financial and business guidelines for managing and mitigating threats to biodiversity particularly from touristic activities Minutes of the workshop Evaluation report (1) on the feasibility of ecotourism in Hurghada Protocol documents	PEE	Community engagement is ensured The government continue its interest to improve PA management including visitors management Shifting to eco-tourism to future-proof will be more and more urging in the short-term
Component 4. Monitoring and Evaluation							

Project? s intervention	Objective and Outcome Indicators	Baseline[1]	Mid- term Target[2]	End of Project Target	Means of verification	Respon sible party	Assumption s / risks
	Output 4.1.3: Terminal Evaluation			Terminal Evaluation Report including gender impact, environmen tal and social manageme nt, and impact of the biodiversity preservatio n measures	TE	UNIDO	

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

GEF SEC comment at PIF stage	Reply
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<p>E-boats: questions regarding the economic feasibility of the e-boat component remain, including the economic feasibility of e-boats currently existing on the market and the potential for scaling to other regions/cities. These questions will have to be addressed during PPG stage and will be checked at CEO ER. In case these questions are not addressed satisfactorily at PPG stage, GEFSEC will ask to remove from the project design the component on e-boats and use the funding available for the other eligible technologies and/or focus on on-shore e-mobility instead in the urban center.</p>	<p>The electrification of boats are globally getting popular due to increasing production volume of electric motors, steadily reducing battery costs and new technologies. The widespread adoption of e-boats is expected to follow up the momentum of electrification of road vehicles 3-5 years behind. Egypt needs to catch up with this trend considering almost all of its urban areas located along the Nile and coastline of Red Sea and Mediterranean Sea. During the PPG, it has been assessed that integrated hybrid electric solution is financially more feasible to avoid GHG emissions and promote the shift to low-carbon maritime transportation. The boats will switch from full-diesel to electric propulsion when mooring, approaching the coral reefs, diving sites or sensitive areas (e.g. for dolphin watching), in the port to reduce their diesel consumption and noise. e-Boats (hybrid diesel/electric) has ~55 \$/tCO2e and E-vehicles (taxi, cars) has ~70 \$/tCO2e cost/GHG emission reduction efficiency. However, please note that there is a growing experience in other markets/regions and it is expected that the cost efficiency will improve over the coming years due to its broad application of batteries and new battery composition globally and in Egypt. Please note that transition to e-mobility has a large potential in the medium/long-term due to its market size. In addition e-boats have several BD benefits such as reducing noise pollution and risk of oil/fuel leakage.</p> <p>In addition, the project will select a strategic location for the charging station (e.g., in the port of Hurghada) allowing both EVs and maritime vehicles to benefit from.</p> <p>There are more than 1000 boats in Hurghada and Sharm el-Sheikh combined. It shows a significant potential for scaling-up in other cities in the Red Sea or Mediterranean coastal cities (e.g., Alexandria).</p>
<p>Emission reductions: A more detailed estimation of emission reductions will have to be provided at CEO ER, once there is more visibility on the split of the available INV financing between eligible technologies.</p>	<p>The detailed calculations including the split between technologies are provided in the GEB section and the Appendix I as well as GHG emission annex. The model calculations are based on realistic assumptions from the site which have been confirmed with the local stakeholders.</p>

Climate risk: A simple analysis of climate risks was included. More detailed analysis will have to be carried out at PPG stage, not only with regards to natural capital assessment and development plans, but also in relation to the resilience of some of the technology and infrastructure that are being proposed (e.g. consideration related to flooding of location planned for the installation of e-vehicles charging stations). This will be checked at the time of CEO ER submission.

Please see the updated Climate Change Risks section under the Risk table. Detailed analysis on impact to technology interventions (e.g., flooding) as well as natural capital assessment are included.

Scale up strategy beyond Hurghada: the Agency will need to provide a much more developed technical, financial and engagement strategy for the scale up of the project at the time of the CEO ER submission, as a condition for endorsement.

The project aims to strengthen Egypt's public and private administration systems in order to incorporate biodiversity and natural capital valuation into their respective decision-making structures and reporting systems for the tourism sector, using Hurghada as a replicable pilot example. The support from the GEF will allow Egypt to directly access global-level expertise and experience to implement the UN SEEA 12 framework and adapt it to the local context. The project will function as a catalyst to drive political commitment to change among existing public sector agencies, both in term of enforcement of existing legal and regulatory provisions for climate change mitigation, biodiversity conservation and sustainable tourism development as well as in developing innovation financial instruments to incentivize sustainable energy investments and biodiversity conservation measures.

From a global perspective, the project will enhance Egypt's capability to implement a sustainable tourism development policy and practice for Hurghada based on international examples. The project will enhance the capacity of the Ministry of Environment and provide guidelines to influence policy and planning processes in the long term. Under the project, opportunities for exchange of knowledge and experience with other government agencies, tourism sector and private entities as well as with international organizations will yield significant benefits in broadening interest and upscaling successful initiatives that conserve and sustain biodiversity within tourism landscapes and seascapes. To maximize project impact and the potential for scaling up, dissemination and wider replication of best practice can help to unlock the potential of opportunities, private sector partnerships and political support that will be further evaluated and promoted during the project implementation period.

<p>During PPG, please consider a stronger involvement of the Ministry in charge of Tourism, including potential (co-)execution, for this project devoted to mainstreaming climate and biodiversity in the tourism sector</p>	<p>Please see Stakeholders table. The project will collaborate with MoTA particularly with Green Tourism Unit under the <i>Activity 3.1.3.1</i>. They will involve policy activities under Component 1 and Green Star Hotel that is managed by MoTA and ETF. MoTA will be also a member of the PSC. During the PPG, it is assessed that the most relevant MoTA department, Green Tourism Unit does not have the capacity for co-execution, considering also that they do not have external advisors anymore.</p>
<p>Council Comments</p>	
<p>Germany's comment (Council comment)</p>	
<p>Germany would like to emphasize that the envisaged sustainability improvements in the tourism sector and on-ground impacts must be analysed and evaluated clearly and transparently. Thus, the focus should be on real emission reduction, protection of biodiversity and sustainable development. This relates to various challenges such as:</p> <ul style="list-style-type: none"> i. the potentially increased use of electricity produced by fossil energy (fossil electricity surplus in the national grid), ii. the direct and indirect subsidy system of touristic services (creating excess overcapacities and market distortion), iii. the enforcement of social standards (e.g. in the construction sector) and iv. the potential involvement of the military complex (being pro-active in the Egyptian tourism sector). 	<p>The project targets greening the existing sector towards sustainable tourism rather than supporting new tourism development. Any new infrastructure developments will be supported from renewable energies only (e.g. RE in hotels or electric charging stations for mobility), or addressing also nature-based solutions within planning and refurbishing existing tourism infrastructure.</p>
<p>Germany requests to elaborate further on the strategy to reach more ecological sustainability and at the same time increase tourism capacities, while making the sector financially feasible during the world-wide pandemic.</p>	<p>This is a more global problem that within one GEF activity of limited financial sources cannot be totally solved. The overall project objectives (para 84), development and tourism policy, planning and resource allocation, creating a financial mechanism, enhanced policy making capacities for improved biodiversity conservation, tourism development planning and protected area management through the use of Strategic Environmental Assessment (SEA) and National Capital Assessment (NCA) can be outlined as the strategy in making the sector both ecologically and financially feasible. (para 88)</p>

<p>Nature protection and energy efficiency increase needs for private sector investments and potentially will create high upfront costs. The project must take into account that in the subsidized Egyptian tourism sector, private sector investments decreased during the economic crisis and suffers in 2020/2021. A transition to more sustainability has to come along with a sectoral consolidation, which cannot yet be seen. Compared to already existing policies, the on-ground implementation of sustainability and energy efficiency measures lack behind, especially in the tourism sector.</p>	<p>Yes, there are upfront costs for investing into NBS and energy efficiency, however the return is also high, financially (with SPB of most of EE measures in average 5-6 years) and socially/environmentally, which are becoming better measurable in the future with adopting improved policies aligned with the concept of NCA. The figures are based on energy audits implemented in Egyptian hotels, and have been adapted by our local team to actual price conditions in HRG (partly examples taken from Sharm as well).</p>
<p>The issue of water pollution is only partially covered. Marine habitats are affected by industrial zones and by the oil and gas industry at the Red Sea. Future local and mega-project developments (like NEOM) should be taken more into consideration.</p>	<p>Reduced water pollution is a more complex issue that is only partly covered in this project. Main potential for pollution reduction is through behavioral changes of boat operators (for this reason Green Fins are relevant initiatives, since they also sensitize the diving industry), by e.g. avoiding waste and waste water discharge from daily boats, and alternatively switching from diesel to electric/hybrid propulsion technology, especially nearby the sensitive water ecosystems (e.g. when approaching the coral reefs diving sites).</p> <p>The project's activities will enhance the capacity of PA administration so they integrate the potential impacts of local development plans. These risks and mitigation measures will be integrated into SEA that will be developed by the project.</p> <p>Impacts from local development plans and risks will be assessed within the scope of the SEA.</p>
<p>It seems that it is not envisaged to attribute new natural habitats and protected area. At least in a small-scale, local extend, this might be a further ambitious objective. Moreover, the reduction of marine litter might be addressed more specifically.</p>	<p>Regarding additional protected areas: there was at some point the idea by EEAA Red Sea Branch to add a new terrestrial PA in the South, but it is out of the scope of the project target area since it is too far South. The management of existing PAs requires additional improvements ? e.g. the Northern RS Islands PA (NIRSPA) does not yet have a proper PA management plan, which will be provided.</p>

<p>The proposal focusses on the use of e-mobility in transport as one major sustainability solution. Most of the Egyptian electricity comes from fossil energy, which reduces the potentially positive impact. Environmental aspects of increased battery usage and its waste management should be assessed in detail by the project.</p>	<p>Yes, it's true that the fossil share in electricity production of EGY is high, but the project argues that for additional e-mobility capacities there will be solely renewable energy sources used. This is an explicit requirement also discussed with the stakeholders involved in the PPG process</p> <p>Battery waste management is a minor aspect in this project considering the target is ~ 50 taxi and ~10 buses plus some number of boats to be partly co-financed from GEF sources. However, we added a soft policy measure related to battery waste management.</p>
<p>The potential CO₂e and energy savings (3.000.000.000 Mega-Joule within 5 years) seem to be quite high. Further details on the calculation basis, used equations and used assumptions should be evaluated carefully, to avoid theoretic but unimplemented CO₂e and energy savings.</p>	<p>See detailed GHG ER calculations provided. The numbers have been cross-checked with the situation on the ground and are more realistic now. The project will have around 1,7 billion MJ energy saving for the duration of 15 years. Direct emissions (for the 5 years) fine-tuned as around 195,000 CO₂eq.</p>
<p>The overall budget estimation for component 4. Monitoring and Evaluation? purposes seem to be quite large. The respective economic feasibility might be evaluated further and revised.</p>	<p>The budget for Component 4 ?Monitoring and Evaluation? is reduced from US\$ 290,000 to US\$ 194,000 as requested. This amount is now less 5% of the total project budget which complies with the GEF guidelines.</p>
<p>The data and literature sources are partially not adequate anymore. Some essential numbers of e.g. the electricity sector descriptions and its context are outdated. Some recent, major developments are not covered in detail in the proposal.</p>	<p>Data as far as available and referred to have been provided with literature sources.</p>
<p>Canada's comment (Council comment)</p>	
<p>The focus of this project on sustainable tourism along with the establishment and improved management of marine protected areas is welcome and in-line with CBD priorities. However, like the other GEF projects listed, there needs to be careful detailing of how this project can demonstrate biodiversity positive outcomes. Canada notes that there have been questions about this in the iterations of the document so far (e.g. mention under the core indicators section, Rev. 04/27/21, ?Core indicator 5: Please clarify, with an explicit link to specific outputs how the project is to improve practices to benefit biodiversity over 96,000 ha outside protected areas?.)</p>	<p>Refer Annex A (Project Results Framework), namely Indicator 2 (GEF CI5) that lists in EOP targets to be achieved to demonstrate positive biodiversity outcomes.</p> <p>The 96,000 ha referred to in the CI5 is an approximate number aligned with the Ministry of Environment /EEAA Red Sea branch referring to the continuation of the Northern Island PA to the South of Hurghada along the coast up to Safaga.</p>

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

The following activities are completed during the PPG phase:

- ? Stakeholder engagement activities during PPG (consultations, workshops, steering committee)
- ? Inception Workshop
- ? Validation Workshop
- ? Research on relevant biodiversity, tourism and sustainable energy studies and consultation to stakeholders and experts
- ? Analysis of baseline and ongoing/planned initiatives
- ? Collection of further baseline data on relevant sectors/technologies (e.g., e-boats)
- ? Development of environmental and social management plan (ESMP) (for Category B projects)
- ? Conduct Gender Analysis and Action Plan
- ? Prepare Stakeholder Engagement Plan
- ? Description of the project implementation/execution modalities and agencies (incl. draft TOR for contractual arrangements, assessments of proposed executing agency capacity)
- ? Capacity assessment of executing entity
- ? Obtaining of co-financing letters from donors, NGOs, Agencies and government

The PPG activities and utilization status are given in the table below. Please note that the budgeted amounts are estimated values.

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Activities	Verification at CEO endorsement submission	Budgeted Amount (a+b)	Amount Spent to Date (a)	Amount Committed (b)
Stakeholder engagement activities during PPG (stakeholders consultations, inception workshop, validation workshop)	Done. Consultation with all the relevant stakeholders conducted. Inception workshop and validation workshop organized and the outcomes are integrated into project design.	20,000	20,000	0
Validating the collection baseline data on relevant sectors/technologies and ongoing/planned initiatives, policies	Completed and integrated into project document	15,000	15,000	0
HACT based capacity assessment of proposed executing agency	Done. Internal Self HACT assessment is conducted. The capacity of the project executing entity (EEAA/OUA) has been found adequate.	13,500	13,500	0

Development of the Environmental and Social Management Plan (ESMP) outlining the relevant risks as well as the mitigation measures for the project	Completed. ESMP is developed and shared along with the submission package.	7,000	7,000	0
Development of Gender Analysis Action Plan	Completed. Gender Analysis Action Plan is developed and shared along with the submission package.	7,000	7,000	0
Description of the project implementation/execution modalities and agencies (including drafting ToRs for contractual arrangements on the role of executing agency).	Done. ToRs for national execution is developed and the internal comments are integrated.	20,000	20,000	0
Development of detailed ToRs for national execution between UNIDO and EEAA/OUA	Done. The ToR is developed	7,500	6,060	1,440
Pre-feasibility studies, development project's outputs and structure	Done in close consultations with relevant stakeholders such as the MoE, CBE, HEPCA, EHA	22,000	17,000	5,000
Consolidation of all inputs into the CEO Approval Document as per GEF template	Done.	7,000	3,000	4,000
Obtaining co-financing letters from counterparts, banks, agencies and government through consultations including all the required activities such as identifying the potential co-financiers and alternative options, several stakeholder consultations, site visits, preparing informative brief notes and the follow up actions.	Completed.	8,000	2,000	6,000

Integrate comments from the stakeholders including activities on evaluating and incorporating the recommendations to the project design, project budget, ESMP, Gender Action Plan, GEBs calculation as well as updating the stakeholders? engagement plan, project risks etc.	Done. Government feedback is integrated into project design.	7,000	3,000	4,000
Stakeholder consultations to verify the CEO approval document and finalization of project document and its annexes.	Done. The project team conducted inception and validation workshops along with bilateral meetings with national stakeholders (e.g., MoE, CBE, Red Sea Governorate, Hurghada Municipality, HEPCA, EHA)	8,000	3,000	5,000
Formal validation of the CEO approval document, UNIDO internal review and submission to GEF Sec; preparation for project start.	Completed	8,000	2,000	6,000
Total		150,000	118,560	31,440

ANNEX D: Project Map(s) and Coordinates

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



ANNEX E: Project Budget Table

Please attach a project budget table.

Indicative Project Budget

Greening Hurghada (GEF ID 10796)

Sum of Budget (USD)	Column Labels			
Expenditure	Component 1	Component 2	Component 3	M&E
Selected PEE	704 758	2 096 000	710 000	25 000
Contractual Services – Company	295 758	562 020	287 242	
Support delivery and participate in workshops and trainings	15 000			
Development of NCA related to tourism at Hurghada based on up-to-date guidance on international best practice in the SEEA EA provided by national expert institution in consultation with international experts.	12 000			
Intl. Consultancy to facilitate establishment of NCA scope and scale	8 000			
Stakeholder consultations facilitated		5 500		
Consultancy to support establishment of SEEA/EEA-based ecosystem accounts	70 000			
Capacity development to develop pilot accounts for the policy scenario analysis	8 000			
Design and delivery of promotional activities and materials	5 000			
Final report and presentation	7 000			
Support the TC meetings preparations and facilitation of stakeholders to be engaged in it		60 000		
Consultancy to develop multi-criteria analysis to identify terrestrial, coastal and marine use regimes and enable decisions regarding sectoral plans and policies	20 000			
Contract consultancy services for development plan/framework until 2030 for PA, incl. scoring system for infrastructure investment projects	35 000			
Consultancy to develop roadmap and agreed with stakeholders	10 000			
Purchase consultancy services, design and installation of data/information sources for MIS (e.g. cartographic database)	25 000			
Contract the development of the Green Urban Mobility Masterplan for Hurghada		53 000		
MRV tool and database procured and established		20 000		
Promote certification programs, such as Green Star Hotel, or respective ISO norms, to facilitate effective management framework for NB-friendly tourism		30 270		
Design and implementation of promotion campaigns			20 000	
Organization of EGY Green Tourism Award			100 000	
TA support to identify best practices and solutions for improving PA conservation and threat reduction			85 000	
Engage with NGOs and associations (e.g. CDWS, Dolphine Watch Alliance) to promote individual community science programs			17 242	
Engage a local PR/marketing company to launch green tourism marketing campaign		20 000		
Support developing relevant policies and regulations	80 758			
TA support to mobility operators (public, private) for detailed feasibility and technical design focusing on electric mobility (buses, taxi, boats) utilizing 100% renewable energy sources		80 500		
3-5 pilot demonstrating NB investments in hotel sector deliver cost-effective solutions, in line with green investment plans of hotels		45 000		
TA support to tourism facilities for assessing their energy and resource use and propose specific investment opportunities (energy and resource efficiency audits for at least 15 hotels offered on a cost-sharing basis)		247 750		
TA to identify and implement best practices and solutions for selected pilot activities, with an agreed level of cost sharing from GEF (e.g. 25-30%)			65 000	
International consultants	65 000			
Design and delivery of NCA planning capacity building to project beneficiaries	36 000			
Design and delivery of capacity building to project beneficiaries	9 000			
TA from intl. NCA experts to ensure quality of results and support modelling of ecosystem services	20 000			
Local consultants	149 000	151 250	309 000	25 000
Consultancy on reviewing existing SEA procedures and ToR development	12 000			
Consultancy to establish baseline for RS environment, incl. scenarios for impacts	50 000			
Consultancy to assess current procedures for undertaking EIA for tourism related development and recommendations to strengthen EIA process	10 000			
Consultancy to develop alternative scenarios for tourism promotion and at same time enhancing environment and its biodiversity	12 000			
Local consultancy to do capacity needs assessment for NCA	7 500			
Support delivery and participate in workshops and trainings	2 500			
Local consultancy to define tourism-based accounts for Hurghada	6 000			
Local Consultancy support to facilitate establishment of NCA scope and scale	5 000			
Local consultancy or research institute to assess policy targets and do analysis on policy scenarios	20 000			
Consultancy to develop/implement the monitoring and information management system	7 500			
Consultancy services to develop criteria for "climate-smart" investments and stakeholder dialogue		10 000		
Local consultancy contract to develop the multi-year CI plan and present, discuss and endorse through stakeholders on national, regional and local level		15 000		
TA and moderation of coordination group to develop a financial mechanism to support climate-smart capital investments in tourism, with intermediate meetings over the remaining project period		15 000		
Local consultant to evaluate options for private sector financing solutions that can potentially support the promotion of nature-based tourism and resort infrastructure in the Hurghada area		15 000		
Consultancy to support developing a competitive selection process of hotels submitting investment proposals and to be selected for implementation support		35 250		
Consultancy to develop a MRV system for project monitoring and reporting, including capacity building for local stakeholders (e.g. engineers, administrative staff in public and private entities)		15 000		
Elaboration of key performance indicators to be used and made available for operationalisation of monitoring project performance		10 000		
MRV database established and used to regularly report and measure performance of greening Hurghada over time		6 000		
Consultancy assessment of possible NBS in hotel sector		10 000		
Consultancy to identify gaps on BD-friendly design, maintenance and monitoring in tourism development		20 000		
Local consultancy to assess training needs of stakeholders concerning sustainable tourism practices and development of training plan			10 000	
Trainings for project beneficiaries on good environmental practices and sustainable tourism promotion			32 000	
Development of guidelines for hotels, resorts, touristic entities, including updates of existing one (e.g. Green Star, Green Fins), in cooperation with relevant institutions			19 000	

ANNEX F: (For NGI only) Termsheet

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

n/a

ANNEX G: (For NGI only) Reflows

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

n/a

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

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

n/a